NATIONAL STEEL CO
Form 20-F
December 26, 2017

As filed with the Securities and Exchange Commission on December 22, 2017.

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934
OR
R ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2016
OR
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
OR
SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number 1-14732

COMPANHIA SIDERÚRGICA NACIONAL
(Exact Name of Registrant as Specified in its Charter)

NATIONAL STEEL COMPANY
(Translation of Registrant's name into English)

THE FEDERATIVE REPUBLIC OF BRAZIL
(Jurisdiction of incorporation or organization)

Marcelo Cunha Ribeiro, Chief Financial Officer
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Av. Brigadeiro Faria Lima, 3400 – 20th floor
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(Address of principal executive offices)

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

Title of each class	**Name of each exchange on which registered**
Common Shares without par value	New York Stock Exchange*
American Depositary Shares, (as evidenced by American Depositary Receipts), each representing one share of Common Stock	New York Stock Exchange

_____

* Not for trading purposes, but only in connection with the registration of American Depositary Shares pursuant to the requirements of the Securities and Exchange Commission.

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

None

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

None

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

Common Shares, without par value.	1,387,524,047 common shares. For further information, see "Item 7A. Major Shareholders," "Item 9A. Offer and Listing Details" and "Item 10B. Memorandum and Articles of Association."

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes R**No**

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes R**No**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

R**Yes No**

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

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

Large Accelerated Filer R **Accelerated Filer** **Non-accelerated Filer**

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

U.S. GAAP **Other**

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

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow:

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes R **No**

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Introduction

Unless otherwise specified, all references in this annual report to:

"we," "us," "our" or "CSN" are to Companhia Siderúrgica Nacional and its consolidated subsidiaries;

"Brazilian government" are to the federal government of the Federative Republic of Brazil;

"*real*," "*reais*" or "R$" are to Brazilian *reais*, the official currency of Brazil;

"U.S. dollars," "$," "U.S.$" or "USD" are to United States dollars;

"billions" are to thousands of millions, "km" are to kilometers, "m" are to meters, "mt" or "tons" are to metric tons, "mtpy" are metric tons per year and "MW" are to megawatts;

"TEUs" are to twenty-foot equivalent units;

"consolidated financial statements" are to the consolidated financial statements of Companhia Siderúrgica Nacional and its consolidated subsidiaries prepared in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB, as of December 31, 2014, 2015 and 2016 and for the years ended December 31, 2014 and 2015 and 2016 together with the corresponding Reports of our Independent Registered Public Accounting Firm;

"ADSs" are to CSN's American Depositary Shares and "ADRs" are to CSN's American Depositary Receipts; and

"Brazil" is to the Federative Republic of Brazil.

Forward-Looking Statements

This annual report includes forward-looking statements, within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended, or the Exchange Act, principally under the captions "Item 3. Key Information," "Item 4. Information on the Company," "Item 5. Operating and Financial Review and Prospects" and "Item 11. Quantitative and Qualitative Disclosures About Market Risk." We have based these forward-looking statements largely on our current expectations and projections about future events, industry and financial trends affecting our business.

Many important factors, in addition to those discussed elsewhere in this annual report, could cause our actual results to differ substantially from those anticipated in our forward-looking statements, including, among other things:

- general economic, political and business conditions in Brazil and abroad, especially in China, which is the largest world steel producer and main consumer of our iron ore;
- demand for and prices of steel and mining products;
- the effects of the global financial markets and economic slowdowns;
- changes in competitive conditions and in the general level of demand and supply for our products;
- our liquidity position and leverage;

- management's expectations and estimates concerning our future financial performance and financing plans;
- our level of debt and our ability to obtain financing on satisfactory terms;
- availability and price of raw materials;
- changes in international trade or international trade regulations;
- protectionist measures imposed by Brazil and other countries;
- our capital expenditure plans;
- inflation, interest rate levels and fluctuations in foreign exchange rates;
- our ability to develop and deliver our products on a timely basis;
- lack of infrastructure in Brazil;

- electricity and natural gas shortages and government responses to them;
- existing and future governmental regulation; and
- other risk factors as set forth under "Item 3D. Risk Factors."

The words "believe," "may," "will," "aim," "estimate," "forecast," "plan," "continue," "anticipate," "intend," "expect" and sim intended to identify forward-looking statements. Forward-looking statements speak only as of the date they were made, and we undertake no obligation to publicly update or to revise any forward-looking statements after we distribute this annual report because of new information, future events or other factors. In light of the risks and uncertainties described above, the forward-looking events and circumstances discussed in this annual report might not occur and are not an indication of future performance. As a result of various factors, such as those risks described in "Item 3D. Risk Factors," undue reliance should not be placed on these forward-looking statements.

Presentation of Financial and Other Information

Our consolidated financial statements as of December 31, 2016 and 2015 and for the years ended December 31, 2016, 2015 and 2014 contained in "Item 18. Financial Statements" have been presented in thousands of *reais* (R$) and prepared in accordance with IFRS as issued by IASB. See Note 2(a) to our consolidated financial statements.

Certain figures included in this annual report have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables may not be an arithmetic aggregation of the figures, which precede them.

PART I

Item 1. Identity of Directors, Senior Management and Advisors

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

3A. Selected Financial Data

We present in this section the summary financial and operating data derived from our audited consolidated financial statements as of and for the year ended December 31, 2016, 2015, 2014, 2013 and 2012.

The consolidated financial statements included in this annual report have been prepared in accordance with IFRS, as issued by the IASB, presented in Brazilian *real*. However, we have translated some of the Brazilian *real* amounts contained in this annual report into U.S. dollars for the convenience of readers outside of Brazil. The rate used to translate such amounts in respect of the year ended December 31, 2016, was R$3.259 to US$1.00, which was the commercial rate for the purchase of U.S. dollars in effect as of December 31, 2016, as reported by the Central Bank of Brazil, or the Central Bank. The U.S. dollar equivalent information presented in this annual report is provided solely for the convenience of investors and should not be construed as implying that the Brazilian *real* amounts represent, or

could have been or could be converted into, U.S. dollars at such rates or at any other rate. See “Exchange Rates” for more detailed information regarding the translation of *reais* into U.S. dollars.

Summary Financial and Operating Data

The following tables present summary historical consolidated financial and operating data for us for each of the periods indicated.

We have applied, beginning January 1, 2013, IFRS 10 - Consolidated Financial Statements, which establishes principles for the presentation and preparation of consolidated financial statements when an entity controls one or more entities, and IFRS 11 - Joint Arrangements, which requires a new valuation of joint arrangements, focusing on the rights and obligations of the arrangement, instead of its legal form. The referred new standard provides additional transition relief, limiting the requirement to provide adjusted comparative information to only the preceding comparative period. We applied this transition relief as described above with respect to the adoption of IFRS 10 and IFRS 11. The financial statements as of and for the year ended December 31, 2012, have been restated for the effects of the retroactive adoption of these new standards.

The consolidated financial statements for the year ended December 31, 2015 have been restated to reflect the outcomes of a detailed review of the business combination transaction that occurred on November 30, 2015, involving our mining and related logistics assets, as well as the outcomes of the in-depth review we performed of various components and transactions, including studies that support the recognition and maintenance of the amounts of long-lived assets, investments in subsidiaries and associates, goodwill, property, plant and equipment and tax credits. The reviews mentioned above resulted in material adjustments to the following items:

1. Business Combination

(a) The Business Combination involving CSN Mineração and Namisa;

(b) Adjustments to the participation of the non-controlling interest of CSN Mineração resulting from a change in the interpretation of the application of the IFRS 3 accounting pronouncement.

2. Expected realization of income tax and social contribution deferred tax credits.

For more information, see Note 2.a.a to our consolidated financial statements included in “Item 18. Financial Statements.”

			Year Ended December 31,			
Income Statement Data:	**2016[1]**	**2016**	**2015[2] Restated**	**2014**	**2013[3]**	**2012**
	(in million of US$, except per share data)		*(in million of R$, except per share data)*			

Net operating revenues	**5,262**	**17,149**	**15,262**	**16,126**	**17,312**	**15,229**
Cost of products sold	(3,878)	(12,640)	(11,740)	(11,592)	(12,423)	(11,259)
Gross Profit	**1,384**	**4,509**	**3,522**	**4,534**	**4,889**	**3,970**
Operating expenses						
Selling	(521)	(1,697)	(1,430)	(1,042)	(875)	(774)
General and Administrative	(159)	(518)	(470)	(438)	(486)	(468)
Equity in results of affiliated companies	20	65	1,160	331	158	642

Other Expenses	(330)	(1,077)	(1,341)	(657)	(1,134)	(2,763)
Other Income [4]	203	663	3,610	90	567	111
Total [4]	**(787)**	**(2,564)**	**1,529**	**(1,716)**	**(1,770)**	**(3,252)**
Operating income	**596**	**1,945**	**5,051**	**2,818**	**3,119**	**419**
Non-operating income (expenses), net						
Financial Income	197	644	488	172	171	391
Financial expenses	(971)	(3,166)	(3,853)	(3,253)	(2,683)	(2,543)
(Loss) Income Before Taxes	**(178)**	**(577)**	**1,686**	**(263)**	**608**	**(1433)**
Income Tax						
Current	(63)	(206)	(136)	(528)	(1,291)	(322)
Deferred	(18)	(60)	(2,768)	679	1,217	1,275
Net Income (Loss) from continuing operations	**(259)**	**(843)**	**(1,218)**	**(112)**	**534**	**(480)**
Net Income (Loss) from discontinued operations	**(3)**	**(10)**	**2**	**-**	**-**	**-**
Net Income (Loss) for the period	**(262)**	**(853)**	**(1,215)**	**(112)**	**534**	**(480)**
Net income (loss) attributable to noncontrolling interest	**25**	**82**	**(2)**	**(7)**	**25**	**(61)**
Net income (loss) attributable to Companhia Siderúrgica Nacional	**(287)**	**(935)**	**(1,213)**	**(105)**	**509**	**(419)**
Basic earnings per common share	(0.19287)	(0.62857)	(0.89597)	(0.07941)	0.36626	(0.32922)
Diluted earnings per common share	(0.19287)	(0.62857)	(0.89597)	(0.07941)	0.36626	(0.32922)

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			As of December 31, 2015			
Balance Sheet Data:	**2016**	**2016**	**Restated**	**2014**	**2013**	**2012**
	(in millions of US$)			*(in million of R$)*		
Current assets	3,819	12,445	16,431	15,936	16,403	19,099
Investments	1,402	4,568	3,998	13,665	13,487	10,840
Property, plant and equipment[3]	5,565	18,136	17,826	15,624	14,911	18,520
Other assets	2,763	9,005	9,084	4,542	5,602	4,825
Total assets	**13,549**	**44,154**	**47,339**	**49,767**	**50,403**	**53,284**
Current liabilities	1,687	5,497	5,082	6,363	5,564	6,551
Non -current liabilities	9,596	31,272	35,166	37,669	36,770	37,725
Stockholders' equity [3]	2,266	7,385	7,091	5,735	8,069	9,008
Total liabilities and stockholders' equity	**13,549**	**44,154**	**47,339**	**49,767**	**50,403**	**53,284**
Paid-in capital (in millions of *reais*)	1,393	4,540	4,540	4,540	4,540	4,540
Common shares (quantities in millions of shares)	1,388	1,388	1,388	1,388	1,457	1,457
Dividends declared and interest on stockholders' equity (in millions of *reais*)[5]	-	-	275	700	800	300
Dividends declared and interest on stockholders' equity per common share (in *reais*)[5]	-	-	0.20	0.50	0.55	0.21

(1) Translated for the convenience of the reader only at the commercial selling rate at closing for the purchase of U.S. dollars, as reported by the Brazilian Central Bank, as of December 31, 2016, of R$3.259 to $US1.00.

(2) The results of our former subsidiary Cia. Metalic Nordeste, or Metalic, were excluded from net operating revenues, cost of sales and/or services, gross profit, operating expenses, other operating expenses, other operating income, financial results and income taxes and were included in "Net (loss) from discontinued operations" due to the sale of Metalic in November 2016. For further information, see "Item 4B. Business Overview— Downstream Facilities—Metalic."

(3) In 2013, the financial information was substantially impacted by the deconsolidation of Transnordestina Logística S.A., which we began to recognize under the equity accounting method, due to the partial spin-off and the entry into effect of the new shareholders'agreement. For further information, see "Other operating income (expenses)" included in "Item 5A. Operating Results."

(4) The 2015 financial information was impacted by the business combination of CSN Mineração (former "Congonhas Minérios) as described in "Item 5A. Operating Results."

(5) Dividends related to the fiscal year ended December 31, 2015 were paid in 2016 before the second restatetement of our financial statements as of and for the year ended December 31, 2015. As a consequence of the aforementioned second restatement, which resulted in a net loss for 2015, we recorded the payment as a payment from our profit reserve account account (statutory reserve of working capital) existing at the time of the distribution. The payment was not allocated to to the minimum mandatory dividends for the year ended December 31, 2015 as established at our 2016 annual shareholders' meeting, held on April 28, 2016. For a discussion of our dividend policy and dividend and interest payments, see "Item 8A. Consolidated Statements and Other Financial Information—Dividend Policy."

The Brazilian foreign exchange system allows the purchase and sale of foreign currency and the international transfer of *reais* by any person or legal entity, regardless of the amount, subject to certain regulatory procedures.

The Brazilian *real* has experienced frequent and substantial variations in relation to the U.S. dollar and other foreign currencies during recent decades. The Central Bank has intervened occasionally to mitigate volatility in foreign exchange rates.

We cannot predict whether the Central Bank or the Brazilian government will continue to allow the Brazilian *real* to float freely or will intervene in the exchange rate market through a currency band system or otherwise. The Brazilian *real* may depreciate or appreciate against the U.S. dollar substantially.

The following tables present the purchase rate, expressed in *reais* per U.S. dollar (R$/US$), for the periods indicated:

Year ended	Low	High	Average [1]	Period-end
December 31, 2012	1.702	2.112	1.955	2.044
December 31, 2013	1.953	2.446	2.161	2.343
December 31, 2014	2.197	2.740	2.355	2.656
December 31, 2015	2.575	4.195	3.338	3.905
December 31, 2016	3.119	4.156	3.484	3.259

Month ended	Low	High	Average	Period-end
January, 2017	3.127	3.273	3.197	3.127
February, 2017	3.052	3.148	3.104	3.099
March, 2017	3.077	3.174	3.128	3.168
April, 2017	3.072	3.198	3.136	3.198
May, 2017	3.092	3.381	3.210	3.244
June, 2017	3.230	3.335	3.294	3.307
July, 2017	3.125	3.318	3.210	3.130
August, 2017	3.115	3.197	3.150	3.146
September, 2017	3.084	3.192	3.134	3.167
October, 2017	3.130	3.279	3.190	3.276
November, 2017	3.213	3.291	3.258	3.261

Source: Central Bank.

(1) Represents the daily average of the close exchange rates during the period.

We pay any cash dividends and make any other cash distributions, if any, with respect to our common shares in Brazilian currency. Accordingly, exchange rate fluctuations may affect the U.S. dollar amounts received by ADS holders on conversion into U.S. dollars of such distributions for payment by the depositary. Fluctuations in the exchange rate between the Brazilian *real* and the U.S. dollar may also affect the U.S. dollar equivalent of the *real* price of our common shares on the São Paulo Stock Exchange (*B3 – Brasil, Bolsa, Balcão*), or the B3.

3B. Capitalization and Indebtedness

Not required.

3C. Reasons for the Offer and Use of Proceeds

Not required.

3D. Risk Factors

An investment in our ADSs or common shares involves a high degree of risk. You should carefully consider the risks described below before making an investment decision. Our business, financial condition and results of operations could be materially and adversely affected by any of these risks. The trading price of our ADSs could decline due to any of these risks or other factors, and you may lose all or part of your investment. The risks described below are those that we currently believe may materially affect us.

Risks Relating to Brazil

The Brazilian government has exercised, and continues to exercise, significant influence over the Brazilian economy. This involvement, as well as Brazilian political and economic conditions, could adversely affect us.

The Brazilian government has frequently intervened in the Brazilian economy and occasionally has made drastic changes in policy and regulations. See "—Government efforts to combat inflation may hinder the growth of the Brazilian economy and could harm us" and "Item 5A. Operating Results—Brazilian Macro-Economic Scenario—Effects of Exchange Rate Fluctuations." The Brazilian government's actions to control inflation and affect other policies and regulations have often involved, among other measures, increases in interest rates, changes in tax policies, price controls, currency exchange and remittance controls, devaluations, capital controls and limits on imports. Our business, financial condition and results of operations may be adversely affected by changes in policy or regulations at the federal, state or municipal level involving or affecting factors such as:

- interest rates;
- exchange controls;
- currency fluctuations;
- inflation;
- price volatility of raw materials and our final products;
- lack of infrastructure in Brazil;
- energy and water supply shortages and rationing programs;
- liquidity of the domestic capital and lending markets;
- regulatory policy for the mining, steel, cement, logistic and energy industries;
- environmental policies and regulations;
- tax policies and regulations, including frequent changes in tax regulations that may result in uncertainties as to future taxation; and
- other political, social and economic developments in or affecting Brazil.

Uncertainty over whether the Brazilian government will implement changes in policy or regulation affecting these or other factors may contribute to economic uncertainty in Brazil and to heightened volatility in the Brazilian securities markets and securities issued abroad by Brazilian companies. These and other developments in the Brazilian economy and governmental policies may adversely affect us and our business and results of operations and may adversely affect the trading price of our common shares.

Since 2014, Brazil's economy has deteriorated. Only in 2017 has it shown initial signs of a slow recovery. The Gross Domestic Product, or GDP, contraction rates were (3.6)% in 2016 and (3.8)% in 2015, and a slightly growth of 0.1% in 2014. The Brazilian government projects the Brazilian GDP will grow by 0.7% in 2017. Our results of operations and financial condition have been, and will continue to be, affected by the growth rate of the Brazilian GDP. We cannot assure you that the GDP will increase or remain stable. Developments in the Brazilian economy may affect Brazil's growth rates and, consequently, the use of our products and services.

Political instability may adversely affect our business and results of operations and the price of our common shares and ADSs.

Brazilian markets have been experiencing heightened volatility due to the uncertainties derived from the ongoing *Lava Jato* investigation, which is being conducted by the Federal Prosecutors' Office, and its impact on the Brazilian economy and political environment. Numerous members of the Brazilian government and of the legislative branch, as well as senior officers of large state-owned and private companies have been convicted of political corruption of officials accepting bribes by means of kickbacks on contracts granted by the government to several infrastructure, oil and gas and construction companies. Profits from these kickbacks financed the political campaigns of political parties that were unaccounted for or not publicly disclosed, and served to further the personal enrichment of the recipients of the bribery scheme. As a result, a number of senior politicians, including congressmen and officers of the major

state-owned and private companies in Brazil, resigned or have been arrested.

The ultimate outcome of these investigations is uncertain, but they have already had an adverse impact on the image and reputation of the implicated companies, and on the general market perception of the Brazilian economy. The development of those unethical conduct cases has and may continue to adversely affect our business, financial condition and results of operations and the trading price of our common shares and ADSs.

In addition, the Brazilian economy continues to be subject to the effects of the impeachment of President Dilma Rousseff on August 31, 2016. Vice-President Michel Temer was sworn in as the new President of Brazil until the next presidential election in 2018. Political uncertainty has remained since Mr. Temer, who is himself the subject of allegations of misconduct, took office. We cannot predict the effects of these recent developments and the current ongoing political uncertainties on the Brazilian economy.

Exchange rate instability may adversely affect us and the market price of our common shares and ADSs.

The Brazilian currency has, during the last decades, experienced frequent and substantial variations in relation to the U.S. dollar and other foreign currencies. For example, the *real* was valued at R$1.67 per US$1.00 in August 2008. Following the onset of the crisis in the global financial markets, the *real* depreciated 31.9% against the U.S. dollar and reached R$2.34 per US$1.00 at the end of 2008. At the end of 2010, the *real* appreciated against the U.S. dollar, reaching R$1.661 per US$1.00. Since 2011, the *real* depreciated against the U.S. dollar, reaching R$3.905 per US$1.00 at the end of 2015 with a 47.0% devaluation in 2015. In 2016, the *real* appreciated against the U.S. dollar, reaching R$3.2591 per US$1.00 at December 31, 2016. On November 30, 2017 the exchange rate was R$3.2681 per US$1.00. There can be no assurance that the *real* will not depreciate further against the U.S. dollar.

Depreciation of the *real* against the U.S. dollar creates inflationary pressures in Brazil and causes increases in interest rates, which negatively affects the growth of the Brazilian economy as a whole, curtails access to foreign financial markets and may prompt government intervention, including recessionary governmental policies. Depreciation of the *real* against the U.S. dollar has also, as in the context of an economic slowdown, led to decreased consumer spending, deflationary pressures and reduced growth of the economy as a whole.

On the other hand, appreciation of the *real* relative to the U.S. dollar and other foreign currencies could lead to a deterioration of the Brazilian foreign exchange current accounts, as well as dampen export-driven growth. Depending on the circumstances, either depreciation or appreciation of the *real* could materially and adversely affect the growth of the Brazilian economy and us, as well as impact the U.S. dollar value of distributions and dividends on and the U.S. dollar equivalent of the market price of our common shares and ADSs.

In the event the *real* depreciates in relation to the U.S. dollar, the cost in *reais* of our foreign currency-denominated borrowings and imports of raw materials, particularly coal and coke, will increase. On the other hand, if the *real* appreciates in relation to the U.S. dollar, it will cause *real*-denominated production costs to increase as a percentage of total production costs and cause our exports to be less competitive. We have a total U.S. dollar-denominated or -linked indebtedness of R$14,607 million or 48% of our total indebtedness, as of December 31, 2016.

Government efforts to combat inflation may hinder the growth of the Brazilian economy and could harm us.

Historically, Brazil has experienced high inflation rates. Inflation and certain actions taken by the Central Bank to curb it have had significant negative effects on the Brazilian economy. After the implementation of the *Plano Real* in 1994, the annual rate of inflation in Brazil decreased significantly, as measured by the National Broad Consumer Price Index (*Índice Nacional de Preços ao Consumidor Amplo)*, or IPCA. Since 2014, and especially in the year 2015, Brazil has again experienced high rates of inflation, although the index of inflation for 2016 has decreased compared to 2015. Inflation measured by the IPCA index was 6.4%, 10.7% and 6.3% in 2014, 2015 and 2016, respectively. In 2017, analysts expect the inflation rate to converge towards the target of 3.0% established by the Central Bank of Brazil.

Inflation and the Brazilian government's measures to fight it, principally the Central Bank monetary policy, have had and may have significant effects on the Brazilian economy and us. Tight monetary policies with high interest rates have restricted and may restrict Brazil's growth and the availability of credit. Conversely, more lenient government and Central Bank policies and interest rate decreases have triggered and may trigger increases in inflation, and, consequently, growth volatility and the need for sudden and significant interest rate increases, which could negatively affect Brazilian economic growth and us. In addition, we may not be able to adjust the price of our products in the foreign markets to offset the effects of inflation in Brazil on our cost structure, given that most of our costs are incurred in *reais*. The Brazilian government has introduced policies aimed at reducing inflationary pressures, which could have the effect of reducing the overall performance of the Brazilian economy.

Developments and the perception of risk in other countries, especially other emerging market countries, may adversely affect the trading price of Brazilian securities, including our common shares and ADSs.

The market value of securities of Brazilian companies is affected to varying degrees by economic and market conditions in other countries, especially other emerging market countries. Although economic conditions in these countries may differ significantly from economic conditions in Brazil, investors' reactions to developments in these other countries may have an adverse effect on the market value of securities of Brazilian issuers. Crisis in, or economic policies of, other countries may diminish investor interest in securities of Brazilian issuers, including ours. This could adversely affect the trading price of our common shares and/or ADSs, and could also make it more difficult for us to gain access to the capital markets and finance our operations on acceptable terms, or at all.

Recently, heightened volatility in the Brazilian market was due to, among other factors, uncertainty as to the implication of U.S. elections, U.S. monetary policy and Great Britain's exit from the European Union on international financial markets, increased aversion to risk in emerging countries, and uncertainties regarding macroeconomic and political conditions.

Risks Relating to Us and the Industries in Which We Operate

We are exposed to substantial changes in the demand for steel and iron ore, which has a substantial impact in the prices of our products and may adversely affect our results of operations.

The steel and mining industries are highly cyclical, both in Brazil and abroad. The demand for steel and mining products and, thus, the financial condition and results of operations of companies in the steel and mining industries, including us, are generally affected by macroeconomic fluctuations in the world economy and the economies of steel-producing countries, including trends in the automotive, construction, home appliances and packaging industries, as well as other industries which rely on steel distributors. A worldwide recession, an extended period of below-trend growth in developed countries or a slowdown in the emerging markets that are large consumers of our products (such as the domestic Brazilian market for our steel products and the Chinese market for iron ore) could sharply reduce demand for our products. In addition, flat steel competes with other materials that may be used as substitutes, such as aluminum (particularly in the automotive and packaging industry), cement, composites, glass, plastic and wood. Government regulatory initiatives mandating the use of such materials in lieu of steel, whether for environmental or other reasons, as well as the development of other new substitutes for steel products, could also significantly reduce market prices and demand for steel products and thereby reduce our cash flow and profitability. Any material decrease in demand or increase in supply for steel and iron ore in the domestic or export markets served by us could have a material adverse effect on us.

Prices charged for iron ore are subject to volatility. International iron ore prices may decrease significantly and have a negative impact on our revenues, cash flow, profitability, as well as result in a need to change the way we operate or in the suspension of certain of our projects and operations.

Our iron ore prices are based on a variety of pricing terms, which generally use market price indices as a basis for determining the customer price. Our prices and revenues for iron ore are consequently volatile, which may adversely affect our results of operations and cash flow. In 2016, average iron ore prices increased 5.3% to US$58.4/dmt, from US$55.5/dmt in 2015. In 2015, average iron ore prices decreased 42.6% to US$55.5/dmt from US$96.7/dmt in 2014, according to the average Platts IODEX (62% Fe CFR China). On September 29, 2017, the index stood at US$61.35/dmt. As a result, revenues from our mining business decreased from 25% of our total net revenues in 2014 to 21% in 2015, and increased to 27% in 2016. A potential decrease in the market prices for iron ore may result in a need to change the way we operate or, depending on the level of price decreases, even in the suspension of certain of our projects and operations and impairment of assets, which could adversely affect our financial position and results of operations.

Adverse economic conditions in China and an increase in global iron ore production capacity could have a negative impact on our revenues, cash flow and profitability.

China has been the main driver of global demand for minerals and metals over the past years, effectively driving global prices for iron ore and steel. In 2016, China accounted for 72% of the global seaborne iron ore trade. The percentage of our iron ore sales volume consumed in China was around 60% in 2016. China is also the largest world steel producer, accounting for approximately 50% of the global steel production.

A contraction of China’s economic growth could result in lower global demand for iron ore and steel and increase the global steel industry’s over-capacity, leading to lower revenues, cash flow and profitability. Poor performance in the Chinese real estate sector and low investments in infrastructure, two of the largest markets for carbon steel in China, could also negatively impact our results. China’s GDP increased 6.7% in 2016 compared to 6.9% in 2015, 7.3% in 2014 and 7.7% in 2013.

In addition, the ramp-up of projects started in past years by major iron ore suppliers could affect seaborne iron ore prices and have a negative impact on our revenues. In addition, the recent upsurge of iron ore prices could also stimulate high cost producers to resume operations, expanding our supply base, which may negatively affect us.

We may not be able to adjust our mining production volume in a timely or cost-efficient manner in response to changes in demand.

Revenues from our mining business represented 25%, 21% and 27% of our total net revenues in 2014, 2015 and 2016, respectively. Operating at significant idle capacity during periods of weak demand may expose us to higher unit production costs since a significant portion of our cost structure is fixed in the short-term due to the high capital intensity of mining operations. In addition, efforts to reduce costs during periods of weak demand could be limited by labor regulations or existing labor or government agreements.

Conversely, our ability to rapidly increase production capacity is limited, which could render us unable to fully satisfy demand for our iron ore. When demand exceeds our production capacity, we may meet excess customer demand by purchasing iron ore from unrelated parties and reselling it, which would increase our costs and narrow our operating margins. If we are unable to satisfy excess customer demand in this way, we may lose customers. In addition, operating close to full capacity may expose us to higher costs, including demurrage fees due to capacity restraints in our logistics systems.

The availability and the price of raw materials that we need to produce steel, particularly coal and coke, may adversely affect our results of operations.

In 2016, raw material costs accounted for 50.3% of our total steel production costs. Our main raw materials include iron ore, coal, coke, limestone, dolomite, manganese, zinc, tin and aluminum. We depend on third parties for some of our raw material requirements, including importing all of the coal required to produce coke and approximately 49% of our coke requirements. In addition, we require significant amounts of energy, in the form of natural gas and electricity, to power our plants and equipment.

Any prolonged interruption in the supply of raw materials, natural gas, or electricity, or substantial increases in their prices, could materially and adversely affect us. These interruptions and price increases may be a result of changes in laws or trade regulations, the availability and cost of transportation, suppliers' allocations to other purchasers, interruptions in production by suppliers and/or accidents or similar events on suppliers' premises or along the supply chain. Our inability to pass those cost increases on to our customers or to meet our customers' demands because of non-availability of key raw materials could also have a material and adverse effect on us.

Our steel products face significant competition, including price competition, from other domestic or foreign producers, which may adversely affect our profitability and market share.

The global steel industry is highly competitive with respect to price, product quality and customer service, as well as technological advances that enable steel companies to reduce their production costs. Brazil's export of steel products is influenced by several factors, including the protectionist policies of other countries, especially those of the United States, disputes regarding these policies before the WTO (World Trade Organization), the Brazilian government's exchange rate policy and the growth rate of the world economy. Further, continuous advances in materials sciences and resulting technologies have given rise to improvements in products such as plastics, aluminum, ceramics and glass that permit them to substitute steel. Due to high start-up costs, the economics of operating a steelworks facility on a continuous basis may encourage mill operators to maintain high levels of output, even in times of low demand, which increases the pressure on industry profit margins. In addition, downward pressure on steel prices by our competitors may affect our profitability.

The steel industry has historically suffered from structural over-capacity which has worsened due to a substantial increase in production capacity in the developing world and particularly in China and India, as well as other emerging markets. China is now, by far, the largest global steel producer and, in addition, Chinese and certain steel exporting countries have favorable conditions (excess steel capacity, undervalued currency or higher market prices for steel in markets outside of such countries), which can have a significant impact on steel prices in other markets. If we are not able to remain competitive in relation to China or other steel-producing countries, our results may be adversely affected.

Since 2010, steel companies in Brazil have faced strong competition from imported products, mainly as a result of the global excess in steel production, reduction in demand for steel products in mature markets, exchange rate appreciation and tax incentives in some of the main exporting countries. Despite Brazilian import duties to protect domestic producers, a substantial volume of steel products is still being imported. If the Brazilian Government does

not act against subsidized steel imports and there is an increase in imports, our results of operations may be materially and adversely affected. Apart from direct steel imports, the Brazilian industry has also been facing competition from imported finished goods, which affects the whole steel chain.

Protectionist and other measures adopted by foreign governments could adversely affect our export sales.

In response to the increased production and export of steel by many countries, anti-dumping and countervailing duty and safeguard measures were imposed in the late 1990s and early 2000s by foreign governments representing the main markets for our exports. In 2015, the U.S. authorities initiated anti-dumping and countervailing duty investigations on hot-rolled and cold-rolled steel sheets and coils imported from Brazil and other countries. In 2016, the European Commission initiated an anti-dumping investigation of hot rolled sheets and coils imported from Brazil and other countries. The imposition of these and other protectionist measures by foreign countries may materially and adversely affect our export sales.

Our activities depend on authorizations, concessions, permits and licenses. Changes of laws and regulations and government measures could adversely affect us.

Our activities and the activities of our subsidiaries and joint ventures are subject to governmental authorizations, concessions, licenses or permits, which include environmental licenses for our infrastructure projects and concessions, including for the port terminals we operate and the railways in which we have an equity interest. Although we believe that such authorizations, concessions, licenses and permits will be granted and/or renewed as and when requested, we cannot guarantee that we will be able to maintain, renew or obtain any required authorization, concession, license or permit, as well as that no additional requirement will be imposed in connection with such request. Authorizations, concessions, licenses or permits required for the development of our activities may require that we meet certain performance thresholds or completion milestones. In case we are unable to meet these thresholds or milestones, we may lose or not be able to obtain or renew such authorizations, concessions, licenses or permits, or under the terms of the new concession laws, claims for the amicable contractual termination and the subsequent re-bidding for concessions. We also cannot guarantee that we, our controlled entities and our joint ventures that hold concessions will timely comply with our/their obligations under any relevant Concession Agreement or in Terms of Undertaking (*Termos de Ajustamento de Conduta*), or TACs, entered into with governmental agencies. In addition, we are exposed to supervision, penalties and fiscalization from the government controlling bodies, as the Brazilian court of audit (*Tribunal de Contas da União*), or TCU, and regulatory agencies. A relevant breach of those obligations may result in the loss or early termination of concessions, authorizations, permits and/or licenses, the restriction of access to public financing for the concession or the amortization of the public financing before a project begins to operate, the acceleration or an event of default in indebtedness, related to the affected concession, permit or license or not, as well as the imposition of penalties, such as fines or the closure of facilities. In case of takeover or Concession Agreement termination due government default, if we are entitled to any indemnification from granting authorities for our investments in connection with concessions, permits or licenses, this indemnification may be insufficient to cover our costs, expenses or losses and may be paid long after the events affecting our concessions, permits or licenses, if at all.

In addition, if laws and regulations applicable to these authorizations, concessions, permits or licenses change, modifications to our technologies and operations could be required, and we may need to make unexpected capital expenditures, and capital expenditures that we have already made may not generate the returns we expected, if any. Especially concerning our mining activities, new, more stringent environmental licensing requirements for our project operations, specifically for our dams, could be imposed. As a result, the amount and timing of future environmental and related expenditures may vary substantially from those currently anticipated and we may encounter delays in obtaining environmental or other operating licenses, or not be able to obtain and/or renew an authorization, permit and/or license and, therefore, may be exposed to civil responsabilities, administrative penalties, criminal sanctions and closure orders for non-compliance with these regulations. These events and additional costs may have a negative impact on our operations, profitability and the return from our projects or even make certain projects economically or otherwise unfeasible. For more information, see “—We are subject to environmental, health and safety incidents. Additionally, current, new or more stringent environmental, safety and health regulations imposed on us may result in increased liabilities and capital expenditures.”

Our activities are also subject to governmental regulation in the form of taxes, charges and royalties, which can have an important financial impact on our operations. In the countries where we are present, governments may impose new taxes, raise existing taxes and royalty rates, reduce tax exemptions and benefits or change the basis on which taxes are calculated in a manner that is unfavorable to us. For example, the Brazilian government charges us a royalty known as the Financial Compensation for Exploiting Mineral Resources (*Compensação Financeira pela Exploração de Recursos Minerais*), or CFEM, and a bill that proposes significant changes to the Mineral Code, including a potential increase in royalties charged for our mining activities, is currently under review by the Brazilian Congress. For more information, see “Item 4B. Business Overview—Government Regulation and Other Legal Matters—Brazil - Mining Regulation—Mineral Rights and Ownership.”

We have a high level of indebtedness that could make it more difficult or expensive to refinance our maturing debt and /or incur new debt.

As of December 31, 2016, our total debt outstanding amounted to R$30,441 million, consisting of R$2,117 million of short-term debt and R$28,324 million of long-term debt. See "Item 5B. Liquidity and Capital Resources" and "Item 18. Financial Statements." We had R$4,871 million of cash and cash equivalents as of December 31, 2016. Our planned investments in all of our business segments will require a significant amount of cash over the course of 2017 and following years. See "Item 4D. Property, Plant and Equipment—Capital Expenditures—Planned Investments."

The level of our indebtedness could affect our credit rating and ability to obtain any necessary financing in the future and increase our cost of borrowing. In addition, our level of indebtedness could make it more difficult to refinance our existing indebtness and could make us more vulnerable in the event of a continued downturn in our business. In these and other circumstances, servicing our indebtedness may use a substantial portion of our cash flow from operations, which could adversely affect our financial condition and results of operations and make it more difficult for us to make payments of dividends and other distributions to our shareholders, including the holders of our ADSs, as well as to fund our operations, working capital and capital expenditures necessary for the maintenance and expansion of our business activities.

There can be no assurance that we will be successful in effecting the renegotiation of our debt. In the absence of obtaining additional capital through asset sales, consensual restructuring of debt and or similar measures, we may be unable to avoid defaults and, consequently, cross-defaults.

We may not be able to maintain adequate liquidity and our cash flows from operations and available capital may not be sufficient to meet our obligations.

While our cash flows from operations and available capital have been sufficient to meet our current operating expenses, contractual obligations and debt service requirements to date, our liquidity, cash flows from operations and available capital may be negatively impacted by the pricing environment for our steel and iron ore products, the exchange rate environment and the effects of continued negative economic conditions in Brazil. These factors have materially and adversely impacted our liquidity and we expect this trend to continue. Recent cost cutting measures implemented by us may not be sufficient to offset these effects or improve our liquidity.

We have announced certain measures to improve our liquidity and debt profile, including the potential sale of certain assets. In addition, we are negotiating the extension of certain of our credit facilities (for further information, see Item "5B. Liquidity and Capital Resources"). If we are unable to successfully sell certain assets and/or extend their amortizations, we may not be able to maintain adequate liquidity and our cash flows from operations and available capital may not be sufficient to meet our obligations.

We cannot assure you that our credit ratings will not be lowered, suspended or withdrawn by the rating agencies.

Our credit ratings are limited in scope, and do not address all material risks relating to an investment in the notes, but rather reflect only the views of the rating agencies at the time the ratings are issued. These ratings may affect the cost and other terms upon which we are able to obtain funding and are subject to change either due to factors specific to us, trends in the industries we operate, or in credit and capital markets more generally. Our high level of indebtedness and other factors have recently resulted in decreases in our credit ratings. In 2016, Fitch Ratings, Moody's and S&P have

decreased our credit ratings from B+, B1 and BB-, respectively, to B-, Caa1 and CCC+, respectively, as of the date of this annual report. As of October 31, 2017, our Fitch Ratings, Moody's and S&P credit ratings were B-, Caa2- and CCC-, respectively. Credit rating agencies regularly evaluate us and their ratings of our long-term debt are based on a number of factors, including our financial strength. We cannot assure that credit rating agencies will not downgrade our credit ratings any further, or that such credit ratings will remain in effect for any given period of time or not be withdrawn entirely by the rating agencies, if, in the judgment of such rating agencies, circumstances so warrant.

In light of our current credit ratings and leverage ratio, our ability to obtain debt and equity financings has been materially weakened, which makes us more vulnerable to unexpected events or to the deterioration of our operating environment.

Any lowering, suspension or withdrawal of such ratings may have an adverse effect on us, our financial condition, results of operations and profitability, including our ability to refinance our existing indebtedness.

Our indebtedness includes restrictive covenants, which may give rise to early maturity in the case of default, and there can be no assurance that we will be successful in effecting the renegotiation of our debt.

Our loan agreements contain certain covenants and disclosure obligations regarding our financial statements. In 2017, we were unable to publish our financial statements as of and for the year ended December 31, 2016 within the regulatory period. Therefore, we requested a waiver from the debentureholders of our 5th, 7th, 8th and 9th Debentures Issuances to grant us until October 31, 2017 to disclose our consolidated financial statements as of and for the year ended December 31, 2016. While we successfully met the October 31, 2017 deadline and are therefore not currently in default under any of our financings, we cannot assure you that we will be able to fully comply with all covenants in our financial agreements. For more information regarding the late filing of our consolidated financial statements as of and for the year ended December 31, 2016, see 13.b in “Item 18. Financial Statements.”

Our governance and compliance procedures may fail to prevent regulatory penalties and reputational harm.

We operate in a global environment, and our activities straddle multiple jurisdictions and complex regulatory frameworks with increased enforcement activities worldwide. Our governance and compliance procedures may not prevent breaches of law, accounting and/or governance standards. We may be subject to breaches of our Code of Ethics, business conduct protocols and instances of fraudulent behavior and dishonesty by our employees, contractors or other agents. Our employees’, contractors’ or other agents’ failure to comply with applicable laws and other standards could subject us to fines, loss of operating licenses and reputational harm, as well as other penalties, which may materially and adversely affect us.

We may fail to maintain an effective system of internal controls, which could prevent us from timely and accurately reporting our financial results.

Our internal controls over financial reporting may not prevent or detect misstatements in a timely manner due to inherent limitations, including human error, circumvention or overriding of controls, or fraud. Even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. If we fail to maintain the adequacy of our internal controls, including any failure to implement new or improved required controls, our business and financial results could be harmed and we could fail to meet our financial reporting obligations. In this regard, and in connection with management’s evaluation of the effectiveness of our internal controls over financial reporting as of December 31, 2016, management determined that we did not maintain effective controls relates to our monitoring process and management review controls and that the ineffective controls constitutes a material weakness.

While we are in the process of improving our internal controls, the material weakness will continue to exist until the remediation actions are fully implemented and tested. If we are unsuccessful in improving these controls or are otherwise unable to remediate this material weakness, our financial reporting may be disclosed in an untimely manner

or with inaccuracies, which could negatively impact our business and financial results.

Some of our operations depend on joint ventures, jointly controlled entities, consortia and other forms of cooperation, and our business could be adversely affected if our partners fail to observe their commitments.

We currently operate parts of our business through joint ventures, strategic alliances and consortia with other companies. We have, among others: (i) established a strategic alliance in 2015 with an Asian consortium at our controlled investee CSN Mineração S.A., or CSN Mineração (formerly named Congonhas Minérios S.A.), to mine iron ore; (ii) a joint venture with other Brazilian steel and mining companies at MRS Logística S.A., or MRS, to explore railway transportation in the Southeastern region of Brazil; (iii) a joint venture with certain Brazilian governmental entities at Transnordestina Logística S.A., or TLSA, to explore railway transportation in the Northeastern region of Brazil; (iv) a joint venture with Tractebel Energia S.A. and Cia. de Cimento Itambé at Itá Energética S.A., or ITASA, to produce electricity; and (v) a consortium with Votorantim Metais Zinco S.A., Aliança Geração de Energia S.A. (union of Vale S..A and CEMIG Geração e Transmissão S.A.) and AngloGold Ashant Córrego do Sítio Mineração S.A. at Igarapava Hydroelectric Power Plant to produce electricity.

Our forecasts and plans for these strategic alliances, joint ventures and consortia assume that our partners will observe their obligations to make capital contributions, purchase products and, in some cases, provide managerial personnel or financing. In addition, many of the projects contemplated by our joint ventures or consortia rely on financing commitments, which contain certain preconditions for each disbursement. If any of our partners fails to observe their commitments or we fail to comply with all preconditions required under our financing commitments or other partnership arrangements, the affected joint venture, consortium or other project may not be able to operate in accordance with its business plans, or we may have to increase the level of our investment to implement these plans.

Accidents or malfunctioning equipment on our premises, railways or ports may decrease or interrupt production, internal logistics or distribution of our products and negatively impact our business.

The steel and iron ore production processes depend on certain critical equipment, such as blast furnaces, steel converters, continuous casting machines, rolling mills, drillers, reclaimers, conveyor belts, crushing and screening equipment and shiploaders, as well as on internal logistics and distribution channels, such as railways and seaports. This equipment and infrastructure may be affected in the case of malfunction or damage. Any significant interruptions in our production process, internal logistics or distribution channels (including our ports and railways) could materially and adversely affect us.

In addition, our operations involve the use, handling, storage, discharge and disposal of hazardous substances into the environment. Our mining, steel and cement businesses are generally subject to significant risks and hazards, including fire, explosions, toxic gas leaks, spilling of polluting substances or other hazardous materials, rockfall incidents in mining operations and incidents involving mobile equipment or machinery. Such events could occur by accident or by breach of operating and maintenance standards, and could result in a significant environmental impact, damage to or destruction of our mineral properties and/or production facilities, personal injury or death, delays or suspensions in production, monetary losses and may be exposed to civil responsabilities, administrative penalties, criminal sanctions and closure orders for non-compliance with these regulations. We have health, safety and environmental standards and risk management programs and procedures in place to mitigate such risks, including in relation to our tailing dams. Notwithstanding our internal standards, policies and controls, our operations remain subject to incidents or accidents that could negatively and adversely affect our business reputation, results of operations and financial results.

Our insurance policies may not be sufficient to cover all our losses.

We maintain several types of insurance policies, in line with the risk management of our businesses, which attempt to follow industry market practices for similar activities. Coverage in such policies encompasses domestic and international (import and export) cargo transportation (road, rail, sea or air), life insurance, personal accidents, health, auto insurance, D&O, general liability, CAR (construction and erection risks), boiler and machinery coverage, trade credit insurance, surety, named perils, ports and terminal liabilities.

We also have an insurance policy covering the operational risks, material damages and loss of profits of our following branches and subsidiaries: Presidente Vargas Steelworks, CSN Mineração, Container Terminal Sepetiba TECON. This policy was negotiated with domestic and foreign insurers and reinsurers and is valid until March 31, 2019, with a limited indemnity of US$600 million (for an insured value of US$9.1 billion) with a deductible of US$385 million for material damages and 45 days to loss of profits. Under the terms of the policy, we remain responsible for the first tranche of US$385 million in losses (material damages and loss of profits). The coverage obtained in these insurance policies may not be sufficient to cover all risks we are exposed to. Additionally, we may not be able to successfully contract or renew our insurance policies in terms satisfactory to us. The occurrence of one or more of these events may adversely affect our financial position.

Our projects are subject to risks that may result in increased costs and/or delays or that could prevent their successful implementation.

We are investing to further increase our steel, mining and cement production capacity, as well as our logistics capabilities. See “Item 4D. Property, Plant and Equipment—Capital Expenditures—Planned Investments.” These projects are subject to a number of risks that may adversely affect our growth prospects and profitability, including the following:

- we may encounter delays, availability problems or higher than expected costs in obtaining the necessary equipment, services and materials to build and operate a project;

- our efforts to develop projects according to schedule may be hampered by a lack of infrastructure, including availability of overburden and waste disposal areas as well as reliable power and water supplies;

- we may fail to obtain, lose, or experience delays or higher than expected costs in obtaining or renewing the required permits, authorizations, licenses, concessions and/or regulatory approvals to build or continue a project; and

- changes in market conditions, laws or regulations may make a project less profitable than expected or economically or otherwise unfeasible.

Any one or a combination of the factors described above may materially and adversely affect us.

We are subject to environmental, health and safety incidents. Additionally, current, new or more stringent environmental, safety and health regulations imposed on us may result in increased liabilities and capital expenditures.

Our steel making, mining, cement, energy and logistics facilities are subject to a broad range of laws, regulations and permit requirements in Brazil relating mainly to the protection of health, safety and the environment.

Brazilian pollution standards are expected to continue to change, including the introduction of new effluent and air emission standards, water management and solid waste-handling regulations, wildlife maintenance regulations, restrictions on business expansions, native forest preservation requirements and the obligation to create privately owned conservation areas (*Reserva Particular do Patrimônio Natural*), or RPPNs, as an environmental compensation for industrial and mining expansion projects. The Brazilian government has adopted a decree under the national policy for climate change (*Política Nacional de Mudanças Climáticas*) that contemplates a 5% reduction in carbon emissions projected for 2020 for the industrial sector (including steel making and cement sectors) and an action plan for the sector is being developed by a technical committee composed of representatives from the government, industry associations and academia. The target reduction for the mining sector is yet to be established. In addition, the state of Rio de Janeiro, through its State Environmental Agency (*Instituto Estadual do Ambiente*), or INEA, issued a law that requires steel making and cement facilities to present action plans to reduce greenhouse gas emissions when renewing

or applying for operational licenses. In regard to air emission standards, the Environmental National Council, or CONAMA, issued a resolution that obliges steel companies to comply with certain restrictions until 2018. The Brazilian government has also established a national policy for solid waste (*Política Nacional de Resíduos Sólidos*), which provides for more strict guidelines for solid waste management and industry targets for reverse logistics as part of the environmental licensing process. Finally, a new regulatory framework for mining operations is currently being developed by the Department of Geology, Mining and Mineral Processing from the Ministry of Mines and Energy, which may impose stricter regulations on our mining operations, including requests for environmental recovery of areas and investments for the granting of mining concessions.

Our operations involve the use, handling, storage, discharge and disposal of hazardous substances into the environment and the use of natural resources, and are generally subject to significant risks and hazards, including fire, explosion, toxic gas leaks, spilling of polluting substances or other hazardous materials, rockfalls, incidents involving dams, failure of other operational structures and incidents involving mobile equipment, vehicles or machinery. This could occur by accident or by breach of operating and maintenance standards, and could result in a significant environmental and social impacts, damage to or destruction of mineral properties or production facilities, personal injury, illness or death of employees, contractors or community members close to operations, environmental damage, delays in production, monetary losses and possible legal liability. Additionally, in remote localities, our employees may be exposed to tropical and contagious diseases that may affect their health and safety. Notwithstanding our standards, policies and controls, our operations remain subject to incidents or accidents that could adversely affect our business, stakeholders or reputation.

New or more stringent environmental, safety and health standards imposed on us could require us to make increased capital expenditures, create additional legal preservation areas in our properties, or make modifications in operating practices or projects. Especially with regard to our mining activities, new more stringent environmental, health and safety standards, including with respect to the licensing process of our projects operations, specifically for our dams, could be imposed. As a result, the amount and timing of future environmental and related expenditures may vary substantially from those currently anticipated. These additional costs may also have a negative impact on the profitability of the projects we intend to implement or may make such projects economically unfeasible. We could also be exposed to civil responsabilities, administrative penalties, criminal sanctions and closure orders for non-compliance with these regulations, as well as encounter delays in obtaining environmental or other operating licenses. Waste disposal and emission practices may result in the need for us to clean up or retrofit our facilities at substantial costs and/or could result in substantial liabilities. Environmental legislation restrictions imposed by foreign markets to which we export our products may also materially and adversely affect our export sales and us.

In addition, we may be requested to enter into Terms of Undertaking (Termos de Ajustamento de Conduta), or TACs, with Brazilian regulators and agencies that require us to minimize or eliminate the risk of environmental impacts in the areas where we operate. If we are unable to comply with a TAC in a timely manner, we may be exposed to penalties, such as fines, revocation of permits, or closure of facilities. See “Item 4B. Government Regulation and Other Legal Matters—Environmental Expenditures and Claims and Item 8A. Financial Information—Consolidated Statements and Other Financial Information—Legal Proceedings.”

Drilling and production risks could adversely affect the mining process.

Once mineral deposits are discovered, it can take a number of years from the initial phases of drilling until production is possible, during which time the economic feasibility of production may change. Substantial time and expenditures are required to:

- establish mineral reserves through drilling; determine appropriate mining and metallurgical processes for optimizing the recovery of metal contained in ore;

- obtain environmental and other licenses;

- construct mining, processing facilities and infrastructure required for greenfield properties; and

- obtain the ore or extract the minerals from the ore.

If a mining project proves not to be economically feasible by the time we are able to profit from it, we may incur substantial losses and be obliged to take write-offs. In addition, potential changes or complications involving

metallurgical and other technological processes arising during the life of a project may result in delays and cost overruns that may render the project not economically feasible.

Our mineral reserve estimates may materially differ from the mineral quantities that we may be able to actually recover; our estimates of mine life may prove inaccurate; market price fluctuations and changes in operating and capital costs may render certain ore reserves uneconomical to mine; and we may face rising extraction costs or investment requirements over time as our reserves deplete.

Our reported ore reserves are estimated quantities of ore and minerals that we have determined can be economically mined and processed under present and anticipated conditions to extract their mineral content. There are numerous uncertainties inherent in estimating quantities of reserves and in projecting potential future rates of mineral production, including many factors beyond our control. Reserve engineering involves estimating deposits of minerals that cannot be measured in an exact manner, and the accuracy of any reserve estimate is a function of the quality of available data and engineering and geological interpretation and judgment. As a result, no assurance can be given that the indicated amount of ore will be recovered or that it will be recovered at the rates we anticipate. Estimates of different engineers may vary, and results of our mining production subsequent to the date of an estimate may lead to revision of estimates. Reserve estimates and estimates of mine life may require revision based on actual production experience and other factors. For example, fluctuations in the market prices of minerals and metals, reduced recovery rates or increased operating and capital costs due to inflation, exchange rates or other factors may render proven and probable reserves uneconomic to exploit and may ultimately result in a restatement of reserves.

In addition, reserves are gradually depleted in the ordinary course of our exploration activities. As mining progresses, distances to the primary crusher and to waste deposits becomes longer and pits become steeper. Also, for some types of reserves, mineralization grade decreases and hardness increases at increased depths. As a result, over time we may experience rising unit extraction costs with respect to each mine, or we may need to make additional investments, including adaptation or construction of processing plants and expansion or construction of tailing dams. Our exploration programs may also fail to result in the expansion or replacement of reserves depleted by current production. If we do not enhance existing reserves or develop new operations, we may not be able to sustain our current level of production beyond the remaining lives of our existing mines. See “Item 4B—Business Overview—Our Mining Segment—Mineral Reserves .”

Natural and other disasters could disrupt our operations.

Our business and operating results could be negatively impacted by social, technical and/or physical risks such as flooding, fire, power loss, loss or reduction of water supply, leakages, accidents, as well as telecommunications and information technology system failures. For example, flooding in Australia at the end of 2010 affected global coal supply and consequently increased our raw material costs. In addition, heavy rainfall in the Southeast Region of Brazil, as well as power and water supply shortages and rationing programs could affect our operations and consequently our revenues. Such events could affect our ability to conduct our business operations and, as a result, reduce our operating results and materially and adversely affect us.

We may not be able to consummate proposed acquisitions successfully or integrate acquired businesses successfully.

From time to time, we may evaluate acquisition opportunities that would strategically fit our business objectives. If we are unable to complete acquisitions, or integrate successfully and develop these businesses to realize revenue growth and cost savings, our financial results could be adversely affected. Acquisitions also pose the risk that we may be exposed to successor liability involving an acquired company. Due diligence conducted in connection with an acquisition, and any contractual guarantees or indemnities that we receive, may not be sufficient to protect us from, or compensate us for, actual liabilities. A material liability associated with an acquisition, such as labor or environmental liabilities, could adversely affect our reputation and financial performance and reduce the benefits of the acquisition.

In addition, we may incur asset impairment charges related to acquisitions, which may reduce our profitability. Our acquisition activities may also present financial, managerial and operational risks, including diversion of management attention from existing core businesses, difficulties integrating or separating personnel, financial and other systems, failure to achieve the operational benefits that were anticipated at the time of the transaction, adverse effects on existing business relationships with suppliers and customers, inaccurate estimates of fair value made in the accounting for acquisitions and/or amortization of acquired intangible assets which would reduce future reported earnings, potential loss of customers or key employees of acquired businesses, and indemnities and potential disputes with the buyers or sellers. Finally, proposed acquisitions may also be subject to review from the competition authorities of the countries involved in the transaction, which may approve such transaction, approve such transaction with restrictions, including the divestment of assets, or reject it. Any of these activities or adverse regulatory decisions could negatively affect our reputation, product sales, financial condition and/or results of operations.

We have experienced labor disputes in the past that have disrupted our operations, and such disputes may recur.

A substantial number of our employees and some of the employees of our subcontractors are represented by labor unions and are covered by collective bargaining or other labor agreements, which are subject to periodic renegotiation. Considering the current political and economic crisis, strikes and other labor disruptions at any of our facilities or labor disruptions involving third parties who may provide us with goods or services may occur. Such disputes have in the past and may in the future materially and adversely affect the operation of our facilities, and/or the timing of completion and the cost of our projects.

We are exposed to the risk of litigation.

We are currently and may in the future be a party to legal proceedings and judicial, administrative or arbitration claims. For some of these legal proceedings and claims, we have not established a provision on our balance sheet or have only established provisions for part of the amounts in question, based on our external or internal counsel's judgment as to the likelihood of an outcome favorable to us.

Although we are contesting such proceedings and claims, the outcome of each specific proceeding and claim is uncertain and may result in obligations that could materially and adversely affect our business and the value of our shares and ADSs. See "Item 8A. Consolidated Statements and Other Financial Information—Legal Proceedings" for additional information.

Risks Relating to our Common Shares and ADSs

Our controlling shareholder has the ability to direct our business and affairs and its interests could conflict with yours.

Our controlling shareholder has the power to, among other things, elect a majority of our directors and determine the outcome of any action requiring shareholder approval, including transactions with related parties, corporate reorganizations, acquisitions, dispositions, the destination and diversification of our investments, and the timing and payment of any future dividends, subject to minimum dividend payment requirements imposed under Brazilian Corporate Law. Our controlling shareholder may have an interest in pursuing acquisitions, dispositions, financings or similar transactions that could conflict with your interests as a holder of our common shares and ADSs. For a description of our ownership structure, see "Item 7A. Major Shareholders."

If you surrender your ADSs and withdraw common shares, you risk losing the ability to remit foreign currency abroad and certain Brazilian tax advantages.

As an ADS holder, you benefit from the electronic certificate of foreign capital registration obtained by the custodian for our common shares underlying the ADSs in Brazil, which allows the custodian to convert dividends and other distributions with respect to the common shares into non-Brazilian currency and remit the proceeds abroad. If you surrender your ADSs and withdraw common shares, you will be entitled to continue to rely on the custodian's electronic certificate of foreign capital registration for only five business days from the date of withdrawal. Thereafter, upon the disposition of, or distributions relating to, the common shares, you will not be able to remit abroad non-Brazilian currency unless you obtain your own electronic certificate of foreign capital registration or you qualify under Brazilian foreign investment regulations that entitle some foreign investors to buy and sell shares on Brazilian stock exchanges without obtaining separate electronic certificates of foreign capital registration. If you do not qualify under the foreign investment regulations you will generally be subject to less favorable tax treatment of dividends and distributions on, and the proceeds from any sale of, our common shares. For more information regarding exchange controls, see "Item 10D. Exchange Controls." If you seek to obtain your own electronic certificate of foreign capital

registration, you may incur expenses or suffer delays in the application process, which could delay your ability to receive dividends or distributions relating to our common shares or the return of your capital in a timely manner. The depositary's electronic certificate of foreign capital registration may also be adversely affected by future legislative changes.

Holders of ADSs may not be able to exercise their voting rights.

Holders of ADSs may only exercise their voting rights with respect to the underlying common shares in accordance with the provisions of the deposit agreement. Under the deposit agreement, ADS holders must vote by giving voting instructions to the depositary. Upon receipt of the voting instructions of the ADS holder, the depositary will vote the underlying common shares in accordance with these instructions. If we ask for voting instructions, the depositary will notify ADS holders of the upcoming vote and will arrange to deliver the proxy card. We cannot assure that ADS holders will receive the proxy card in time to ensure that they can instruct the depositary to vote. In addition, the depositary and its agents are not liable for failing to carry out voting instructions or for the manner of carrying out voting instructions. Alternatively, ADS holders can exercise their right to vote by surrendering their ADSs for cancellation in exchange for our common shares. Pursuant to applicable Brazilian law, companies that issue ADSs must publish the first call for a shareholders' meeting at least 30 days in advance of the meeting, and the second call must be published at least 08 days in advance of the meeting. When a shareholders' meeting is convened, holders of ADSs may not receive sufficient advance notice to surrender their ADSs in exchange for the underlying common shares to allow them to vote with respect to any specific matter. As a result, holders of ADSs may not be able to exercise their voting rights.

The relative volatility and illiquidity of the Brazilian securities markets may substantially limit your ability to sell the common shares underlying the ADSs at the price and time you desire.

Investing in securities that trade in emerging markets, such as Brazil, often involves greater risk than investing in securities of issuers in the United States, and such investments are generally considered to be more speculative in nature. The Brazilian securities market is substantially smaller, less liquid, more concentrated and can be more volatile than major securities markets in the United States. The ten largest companies in terms of market capitalization represented 55% of the total market capitalization of the B3 as of December 31, 2016. The top ten stocks in terms of trading volume accounted for 45%, 46%, and 47.2% of all shares traded on the B3 in 2016, 2015 and 2014, respectively. Accordingly, although you are entitled to withdraw the common shares underlying the ADSs from the depositary at any time, your ability to sell the common shares underlying the ADSs at a price and time at which you wish to do so may be substantially limited.

Holders of ADSs may be unable to exercise preemptive rights with respect to our common shares.

We may not be able to offer our common shares to U.S. holders of ADSs pursuant to preemptive rights granted to holders of our common shares in connection with any future issuance of our common shares unless a registration statement under the Securities Act is effective with respect to such common shares and preemptive rights, or an exemption from the registration requirements of the Securities Act is available. We are not obligated to file a registration statement relating to preemptive rights with respect to our common shares or to undertake steps that may be needed to find exemptions from registration that are available, and we cannot assure you that we will file any such registration statement or take any such steps. If such a registration statement is not filed and an exemption from registration does not exist, the JP Morgan Chase Bank, N.A., as depositary, may attempt to sell the preemptive rights, and you will be entitled to receive the proceeds of such sale. However, these preemptive rights will expire if the depositary does not sell them, and U.S. holders of ADSs will not realize any value from the granting of such preemptive rights. For a more complete description of preemptive rights with respect to the underlying shares, see "Item 10B. Memorandum and Articles of Association—Preemptive Rights."

A decrease in our market capitalization may increase volatility.

In recent years our market capitalization has decreased and as a result the volatility in the trading price of our common shares and ADSs has increased. Any further decreases in our market capitalization may further increase

volatility. In 2016, the trading price of our ADSs dropped for a certain period below the levels required by the listing standards of the New York Stock Exchange ("NYSE"). If the trading price of our ADSs again drops below those levels, we may be required to do a reverse stock split or a ratio change of the number of common shares per ADS in order to regain compliance with NYSE's listing standards.

Item 4. Information on the Company

4A. History and Development of the Company

Companhia Siderúrgica Nacional is a Brazilian corporation (*sociedade por ações*) incorporated in 1941 pursuant to a decree of the Brazilian president at the time, Getúlio Vargas. The Presidente Vargas Steelworks, located in the city of Volta Redonda, in the state of Rio de Janeiro, started the production of coke, pig iron and steel products in 1946. Also in 1946, we incorporated both the Casa de Pedra Mine, located in the city of Congonhas, State of Minas Gerais, and the Arcos Mine, located in the city of Arcos, State of Minas Gerais. The Casa de Pedra Mine assures us self-sufficiency in iron ore, whereas the Arcos Mine meets all our needs for flux, limestone and dolomite.

The Company was privatized through a series of auctions held in 1993 and early 1994, through which the Brazilian government sold its 91% ownership interest.

Between 1993 and 2002, we implemented a capital improvement program aimed at increasing our annual production of crude steel, improving the quality of our products and enhancing our environmental protection and cleanup programs. As part of the investments, since February 1996, all our production has been based on the continuous casting process, rather than ingot casting, which involved an alternative method that resulted in higher energy use and metal loss. From 1996 until 2002, we spent the equivalent of US$2.4 billion on the capital improvement program and on maintaining our operational capacity, culminating with the renovation of Blast Furnace No. 3 and Hot Strip Mill No. 2 in 2001. These measures resulted in the increase of our annual production capacity to 5.6 million tons of crude steel and 5.1 million tons of rolled products.

In 2007, CSN started to sell iron ore in the seaborne market. Today, CSN, through its controlled company CSN Mineração (formerly named Congonhas Minérios S.A.), is an important exporter of iron ore, drawing from the high quality iron ore reserves in the Casa de Pedra and Engenho mines, located in the state of Minas Gerais. CSN Mineração currently holds the concession to operate the Terminal de Carvão, or TECAR, a solid bulks terminal located in Itaguaí Port in the state of Rio de Janeiro, through which CSN Mineração exports iron ore and imports coal and coke.

In 2009, we entered the cement market with our first grinding mill, next to the Presidente Vargas Steel Mill in Volta Redonda, Rio de Janeiro, taking advantage of the synergies with our steel business.

In order to diversify our product portfolio, we entered in the long steel market in 2012, with the acquisition of Stahlwerk Thüringen Gmbh, or SWT, a long steel manufacturer located in Unterwellenborn, Germany.

In addition, a new plant for production of long steel products has been installed at Volta Redonda and started operations in December 2013. The plant consists of an electric arc steelmaking furnace, continuous casting for billets and a hot rolling mill for round section long products. This plant provides the domestic market with rebar for civil construction and wire rod for industrial and civil construction applications.

In 2015, we inaugurated two new grinding mills, and in 2016, we concluded a new 6,500 tpd kiln line, reaching a capacity of 4.7 million tons in our cement plants.

General

We operate throughout the entire steel production chain, from the mining of iron ore to the production and sale of a diversified range of high value-added steel products. We divide our business into five segments: steel, mining, cement, logistics and energy businesses.

Steel

In our flat steel segment, we are an almost fully integrated steelmaker. Presidente Vargas Steelworks produce a broad line of steel products, including slabs, hot and cold-rolled, galvanized and tin mill products for the distribution, packaging, automotive, home appliance and construction industries.

Our current annual crude steel capacity and rolled product capacity at the Presidente Vargas Steelworks is 5.6 million and 5.1 million tons, respectively. At the end of 2015, due to weak internal demand for steel, we decided to interrupt operation of Blast Furnace No. 02 for maintenance, impacting our annual production capacity of crude steel at the Presidente Vargas Steelworks by 28%, while the production of rolled steel decreased 20%. During 2016, our inventory levels significantly dropped and we decided to resume operations of Blast Furnace No.2 in October.

Our production process is based on the integrated steelworks concept.

We currently obtain all of our iron ore (except for pellets), limestone and dolomite requirements and a portion of our tin requirements, from our own mines. Using imported coal, we produce approximately 51% of our coke requirements at current production levels in our own coke batteries at Volta Redonda. Imported coal is also pulverized and used directly in the pig iron production process. Zinc, manganese ore, aluminum and a portion of our tin requirements are purchased in local markets. Our steel production and distribution processes also require water, industrial gases, electricity, rail and road transportation and port facilities.

In addition to the production of flat steel, we entered into the long steel segment, with the acquisition of Stahlwerk Thüringen Gmbh (SWT) in 2012 for €483.4 million. SWT is a long steel producer in Germany with annual production capacity of approximately 1.1 million tons of steel sections.

We also completed a new plant for production of long steel products in Volta Redonda, in December 2013. The plant consists of an electric arc steelmaking furnace, continuous casting for billets and a hot rolling mill for round section long products – wire rod and rebar. We expect this plant to reach 500,000 t/year output when fully operational, providing the domestic market with products for civil construction.

Mining Activities

We own a number of high quality iron ore mines, all located within Brazil's Iron Ore Quadrangle (*Quadrilátero Ferrífero*), in the state of Minas Gerais, including the Casa de Pedra and Engenho mines, located in the city of Congonhas, pertaining to our controlled investee, CSN Mineração, and Fernandinho mines, located in the city of Itabirito and the Cayman and Pedras Pretas mining rights, located in the city of Rio Acima and Congonhas, respectively, pertaining to our wholly owned subsidiary Minérios Nacional S.A. ("Minérios Nacional," former Mineração Nacional S.A.). Our mining assets also include the cargo terminal Itaguaí Port, or TECAR, pertaining to CSN Mineração, the Bocaina mines, located in the city of Arcos, in the state of Minas Gerais, which produces dolomite and limestone, and Estanho de Rondônia S.A., or ERSA, located in the city of Ariquemes, in the state of Rondônia, which mines and casts tin. We sold 25.2 million tons, 25.7 million tons and 32.9 million tons of iron ore to third parties in 2014, 2015 and 2016, respectively.

Logistics

Our verticalization strategy and synergies among our business units are strongly dependent on the logistics needed to guarantee the transportation of the inputs at a low operating cost. A number of railways and port terminals make up the logistics system integrating our mining, steelmaking and cement units.

We operate a port terminal for containers, Sepetiba Tecon, at Itaguaí Port, in the state of Rio de Janeiro, and CSN Mineração operates the solid bulks terminal, or TECAR, also located at Itaguaí Port, in the state of Rio de Janeiro.

We also have interests in three railways: (i) we share control in MRS Logística S.A., which operates the former Southeast System of the Federal Railway System, along the Rio de Janeiro-São Paulo-Belo Horizonte axis; (ii) we have an interest in jointly controlled investee Transnordestina Logística S.A., or TLSA, which has a concession to construct and operate the Northeastern Railway System II; and (iii) we control Ferrovia Transnordestina Logística S.A., or FTL, which operates the former Northeastern Railway System, or RFFSA, or Rede Ferroviária Federal, which we currently call Northeastern Railway System I.

Cement

We entered the cement market in May 2009, driven by the strong synergy with our steelmaking business. This segment takes advantage of the slag generated by our blast furnaces and of our limestone reserves, located in the city of Arcos in the state of Minas Gerais. Limestone is used to produce clinker. Clinker and slag are the main inputs in cement production.

In 2015, we inaugurated two new grinding mills, and in 2016, we concluded a new kiln line of 6,500 tons per day capacity, reaching a capacity of 4.7 million tons per year of cement considering our Volta Redonda and Arcos plants. We plan to increase our market share in the cement segment in Brazil in order to diversify our product mix and markets, reducing risks and adding value for our shareholders.

Energy

Steelmaking requires significant amounts of electricity to power rolling mills, production lines, hot metal processing, coking plants and auxiliary units. In 2016, our Presidente Vargas Steelworks consumed approximately 2.642 million MWh of electric energy.

Our main source of electricity is our thermoelectric co-generation power plant at the Presidente Vargas Steelworks, which is fueled by the gases from the steel production process, with 235.2 MW installed capacity. In addition, we have a 29.5% interest in the Itá Hydroelectric Power Plant in Santa Catarina, through a 48.75% equity interest in ITASA, and a 17.9% interest in the Igarapava Hydroelectric Power Plant in Minas Gerais, from which we have ensured energy an average of 167 MW and an overage of 23 MW, respectively. In 2014, we installed a new turbine generator at the Presidente Vargas Steelworks, which adds 21 MW to our existing installed capacity. This turbine is located near our Blast Furnace No. 3, using the outlet gases from the iron making process to generate energy.

Other Information

CSN's legal and commercial name is Companhia Siderúrgica Nacional. CSN is organized for an unlimited period of time under the laws of the Federative Republic of Brazil. Our head offices are located at Av. Brigadeiro Faria Lima, 3400, 19th and 20th floors, Itaim Bibi, São Paulo, Brazil, CEP 04538-132, and our telephone number is +55-11-3049-7100. CSN's agent for service of process in the United States is CT Corporation, with offices at 111 Eighth Avenue, New York, New York 10011.

4B. Business Overview

Competitive Strengths

We believe that we have the following competitive strengths:

Integrated business model. We are a highly integrated steelmaker. This is due to our captive sources of raw materials, principally iron ore, and infrastructure, such as railways and deep-sea water port facilities. We own a number of high quality iron ore mines, all located within Brazil's Iron Ore Quadrangle (*Quadrilátero Ferrífero*), in the State of Minas Gerais, distinguishing us from our main competitors in Brazil which have to purchase all or a portion of their iron ore from mining companies.

Profitable mining business. We have in recent years invested significantly in our mining business, placing CSN in a prominent position among the world's leading iron ore players. Further expansions will enable expanding product portfolio and total output, increasing our presence in seaborn markets.

We have high-quality iron ore reserves in Casa de Pedra, Engenho, Fernandinho and other mines, all located in Minas Gerais. Our mining activities provide relevant EBITDA generation. We sold 20.2 million tons to third parties in 2012, 21.5 million tons in 2013, 25.2 million tons in 2014 (taking into account our proportional interest in Namisa throughout this period), 25.7 million tons in 2015 and 32.9 million tons in 2016 (including 100% of Namisa due to full consolidation of CSN Mineração, formerly named Congonhas Minérios S.A.). Our mining business also includes

TECAR, a solid bulks terminal at Itaguai Port (RJ), with a capacity to handle 45 mtpy, Mineração Bocaina, located in Arcos (MG), which produces dolomite and limestone and ERSA, which mines and casts tin.

During 2015 and 2016, we implemented cost reduction actions, which, along with the *real* depreciation, reduced our production costs at the Casa de Pedra mine from US$24.66/ton in 2014 to US$15.56/ton and to US$12.92/ton in 2015 and 2016, respectively.

Thoroughly developed transport infrastructure. We have a thoroughly developed transport infrastructure, connecting our iron ore mine to our steel mill and to the port terminals we operate. The Presidente Vargas Steelworks facility is located next to railway and port systems, facilitating the supply of raw materials, the shipment of our production and easy access to our main clients. Our steelworks are close to the main steel consumer centers in Brazil, with easy access to port facilities and railway. The concession for the main railway we use and operate is owned by MRS, a company in which we hold a 34.94% direct and indirect ownership interest. The railway connects our Casa de Pedra mine to the Presidente Vargas Steelworks and to our terminals at Itaguaí Port, which handles our iron ore exports and most of our steel exports, as well as our imports of coal and metallurgical coke. Since the constitution of MRS railway, in 1996, it has significantly improved its productivity and developed its business, with increased cash generation.

Self-sufficiency in energy generation. We are self-sufficient in energy through our interests in the hydroelectric plants of Itá and Igarapava, as well as our own thermoelectric plant located inside the Presidente Vargas Steelworks. We also sell the excess energy we generate in the energy market on a spot basis. Our 256 MW thermoelectric cogeneration plant provides the Presidente Vargas Steelworks with approximately 60% of its energy needs for its steel mills, using as its primary fuel the waste gases generated by our coke ovens, blast furnaces and steel processing facilities. We hold a 29.5% stake in the Itá Hydroelectric Power Plant, in Santa Catarina. This ownership grants us an assured energy of 167 MW, proportional to our interests in the project, pursuant to a 30-year power purchase agreements at a fixed price per megawatt hour, adjusted annually for inflation. In addition, we own 17.9% of the Igarapava hydroelectric plant, with 210 MW fully installed capacity and a direct take of 23 MW of assured energy to us.

Low cost structure. As a result of our fully integrated business model, our thoroughly developed transportation infrastructure and our self-sufficiency in energy generation, we have been consistently generating high margins compared to peer companies of both steel and mining segments. Other factors that lead to our low cost structure include the strategic location of our steelworks facility along with our well qualified work force with a lean cost.

Diverse product portfolio and product mix. We have a diversified flat steel product mix that includes hot-rolled, cold-rolled, galvanized and steel tin mill products, in order to meet a wide range of customer needs across all steel consuming industries. We focus on selling high-margin products, such as tin-coated, pre-painted, galvalume and galvanized products. Our galvanized products provide material for exposed auto parts, using hot-dip galvanized steel and laser-welded blanks. Our CSN Paraná branch provides us with additional capacity to produce high-quality galvanized, galvalume and pre-painted steel products for the construction and home appliance industries. In addition, our distribution subsidiary, Prada, provides a strong sales channel in the domestic market, enabling us to meet demand from smaller customers, thus creating an important presence in this market.

Strong presence in domestic market and strategic international exposure for steel products. We have a strong presence in the domestic market for steel products, with a market share above 30% of the domestic flat steel market. In addition, we use our subsidiaries CSN LLC and Lusosider as sales channels for our flat steel products in the United States and in Europe, which accounted for approximately 21% of our total sales in 2016. Direct exports accounted for 6% of our total sales in 2016. In 2012, we acquired SWT, a long steel producer in Germany with annual production capacity of approximately 1.1 million tons of steel profiles, strengthening our steel products mix and geographical diversification. In 2016, SWT accounted for 16% of our total sales.

Strategies

Our goal is to increase value for our shareholders by further benefiting from our competitive cost advantages and quality of product portfolio, maintaining our position as one of the world’s lowest-cost steel producers, increasing our relevance as an important iron ore global player, increasing the market share and size of our cement business and

optimizing our infrastructure assets (including ports, railways and power generating plants) to enable high integration, quality product and low costs. To achieve these goals, we developed specific strategies for each of our business segments, as described below.

Steel

The strategy for our steel business involves:

- A focus on the domestic market, by increasing market share in the flat steel segment and long steel market;

- An emphasis on high margin coated steel products, such as galvanized, galvalume, pre-painted and tin plate;

- Geographical diversification through our flat and long steel facilities abroad. We also intend to maintain and diversify our exports, focused on high quality products such as coated steels;

- The constant pursuit of operational excellence, by developing and implementing cost reduction projects (*e.g.*, energy efficiency) and process review programs (*e.g.*, internal logistic optimization, project development and implementation discipline);

- Exploring marketing and commercial synergies by using our flat steel distribution network and product portfolio to accelerate entrance into the domestic long steel market;

- Increasing customized services and distribution abilities through our expanding distribution network; and

- Divestment from non-strategic assets to improve capital allocation and optimize our business portfolio, such as the sale transcation of Cia. Metalic Nordeste, or Metalic, during 2016.

For information on planned investments relating to our steel activities, see “Item 4D. Property, Plant and Equipment—Capital Expenditures—Planned Investments.”

Mining

In order to strengthen our position in the iron ore market, we plan to invest in our mining assets, such as CSN Mineração, to enable low operational costs and long term growth opportunities.

In the coming years, we expect to reach an annual shipment level of over 60 mtpy of iron ore products, including third party products, by increasing mine capacity at Casa de Pedra and other mines, along with developing export services for third party producers. However, in the short term, considering the current pricing and global iron ore competitive scenario, we will focus on exporting quality iron ore with low cost, guaranteeing participation in the seaborne market.

To sustain this growth, we plan to increase capacity in TECAR, our solid bulks terminal at Itaguai Port, to 60 mtpy.

In order to maximize the profitability of our product portfolio, we also plan to focus on increasing our output of high quality pellet-feed, by using Itabirito’s deposits and investing with strategic partners and clients in providing pellet feed to pellet producers.

For information on planned investments relating to our mining activities, see “Item 4D. Property, Plant and Equipment—Capital Expenditures—Planned Investments.”

Logistics

We expect to expand our current logistics capabilities, including our integrated infrastructure operations of railways and ports.

We intend to continue to improve the delivery of our products in the domestic market (mainly steel and cement) by implementing low cost measures and improving our efficiency through integration and increase in the use of rail transportation, and by providing more distribution centers to reach end clients.

In addition to investments in TECAR, we expanded the TECON terminal at Itaguaí Port in 2014. The project enables us to operate large vessels simultaneously, increasing TECON's capacity to 440,000 containers.

In terms of railways, the Transnordestina Logística project is being developed to explore a logistic potential, focusing on iron ore, agricultural commodities, gypsum and fuel. We also plan to invest in increasing our efficiency and capacity in the south of Brazil through our interest in MRS.

Cement

Our cement business strategy involves the utilization of the limestone reserves in our Arcos mine and the slag generated by our blast furnaces at Volta Redonda. The first cement grinding mill was inaugurated in 2009, with capacity to produce 2.4 million tons per year. In 2011, we began producing clinker in the Arcos plant enabling lower production costs. In 2015, we inaugurated two new grinding mills, and in 2016, we concluded a new 6,500 tpd kiln line, reaching a capacity of 4.7 million tons. We intend to expand our cement production capacity to 5.7 million tons per year over the next years. For information on planned investments relating to our cement activities, see "Item 4D. Property, Plant and Equipment—Capital Expenditures—Planned Investments."

Additional Investments

In addition to the currently planned investments and capital expenditures, we continue to consider possible acquisitions or divestments, joint controlled entities and brownfield or greenfield projects to improve our steel, cement and mining cost competitiveness and production, along with our logistics capabilities, logistics infrastructure and energy generation.

Our Steel Segment

We produce carbon steel, which is the world's most widely produced type of steel, representing the vast bulk of global consumption. From carbon steel, we sell a variety of products, both domestically and abroad, to manufacturers in several industries.

Flat Steel

Our Presidente Vargas Steelworks produces flat steel products — slabs, hot-rolled, cold-rolled, galvanized and tin mill products. For further information on our production process, see "—Production Process."

Slabs

Slabs are semi-finished products used for processing hot-rolled, cold-rolled or coated coils and sheet products. We are able to produce continuously cast slabs with a standard thickness of 250 millimeters, widths ranging from 830 to 1,600 millimeters and lengths ranging from 5,250 to 10,500 millimeters. We produce high, medium and low carbon slabs, as well as micro-alloyed, ultra-low-carbon and interstitial free slabs. The slabs are then slitted and finished, generating blooms which are delivered to the long products plant.

Hot-Rolled Products

Hot-rolled products include heavy and light-gauge hot-rolled coils and sheets. A heavy gauge hot-rolled product, as defined by Brazilian standards, is a flat-rolled steel coil or sheet with a minimum thickness of 5.01 millimeters. We are able to provide coils of heavy gauge hot-rolled sheet having a maximum thickness of 12.70 millimeters used to manufacture automobile parts, pipes, structural beams and other construction products. We produce light gauge hot-rolled coils and sheets with a minimum thickness of 1.20 millimeters, which are used for welded pipe and tubing, automobile parts, gas containers, compressor bodies and light cold-formed shapes, channels and profiles for the construction industry.

Cold-Rolled Products

Cold-rolled products include cold-rolled coils and sheets. A cold-rolled product, as defined by Brazilian standards, is a flat cold-rolled steel coil or sheet with thickness ranging from 0.30 millimeters to 3.00 millimeters. Cold-rolled products have more uniform thickness and better surface quality when compared to hot-rolled products and their main applications are automotive parts, home appliances and construction. We supply cold-rolled coils with thickness ranging from 0.30 millimeters to 2.99 millimeters.

Galvanized Products

Galvanized products are comprised of flat-rolled steel coated on one or both sides with zinc or a zinc-based alloy applied by either a hot-dip or an electrolytic process. We use the hot-dip process, which is approximately 20% less expensive than the electrolytic process. Galvanizing is one of the most effective and low-cost processes used to protect steel against corrosion caused by exposure to water and the atmosphere. Galvanized products are highly versatile and can be used to manufacture a broad range of products, such as:

- automobiles, trucks and bus bodies;
- manufactured products for the construction industry, such as panels for roofing and siding, dry wall and roofing support frames, doors, windows, fences and light structural components;
- air ducts and parts for hot air, ventilation and cooling systems;
- culverts, garbage containers and other receptacles;
- storage tanks, grain bins and agricultural equipment;
- panels and sign panels; and
- pre-painted parts.

Galvanized sheets, both painted and bare, are also frequently used for gutters and downspouts, outdoor and indoor cabinets, all kinds of home appliances and similar applications. We produce galvanized sheets and coils in continuous hot-dip processing lines, with thickness ranging from 0.30 millimeters to 3.00 millimeters. The continuous process results in products with highly adherent and uniform zinc coatings capable of being processed in nearly all kinds of bending and forming machinery.

We produce *Galvanew*® in addition to the standard galvanized products. This product is produced by an additional annealing cycle just after the zinc hot-dip coating process. This annealing process causes iron to diffuse from the base steel into the zinc coating. The resulting iron-zinc alloy coating allows better welding and paint performance. The combination of these qualities makes our *Galvanew*® product particularly well suited for manufacturing automobile and home appliance parts including high gloss exposed parts.

At CSN Paraná, one of our branches, we produce *Galvalume*®, a continuous Al-Zn coated material. Although the production process is similar to the hot-dip galvanized coating, *Galvalume*® has at least twice the corrosion resistance of standard galvanized steel. *Galvalume*® is primarily used in outdoor construction applications that may be exposed

to severe acid corrosion, like marine uses.

The value added from the galvanizing process permits us to price our galvanized products with a higher profit margin. Our management believes that our expertise in value-added galvanized products presents one of our best opportunities for profitable growth because of the increase in Brazilian demand for such high margin products.

Through our branch CSN Paraná, we also produce pre-painted flat steel, which is manufactured in a continuous painting line. In this production line, a layer of resin-based paint in a choice of colors is deposited over either cold-rolled or galvanized base materials. Pre-painted material is a higher value-added product used primarily in the construction and home appliance markets.

Tin Mill Products

Tin mill products consist of flat-rolled low-carbon steel coils or sheets with, as defined by Brazilian standards, a maximum thickness of 0.45 millimeters, coated or uncoated. Coatings of tin or chromium are applied by electrolytic process. Coating costs place tin mill products among the highest priced products that we sell. The added value from the coating process permits us to price our tin mill products with a higher profit margin. There are four types of tin mill products, all produced by us in coil and sheet forms:

- Tin plate - coated on one or both sides with a thin metallic tin layer plus a chromium oxide layer, covered with a protective oil film;
- Tin free steel - coated on both sides with a very thin metallic chromium layer plus a chromium oxide layer, covered with a protective oil film;
- Low tin coated steel - coated on both sides with a thin metallic tin layer plus a thicker chromium oxide layer, covered with a protective oil film; and
- Black plate - uncoated product used as the starting material for the coated tin mill products.

Tin mill products are primarily used to make cans and other containers. With six electrolytic coating lines, we are one of the biggest producers of tin mill products in the world and the sole producer of coated tin mill products in Brazil.

Quality Management System

We maintain a Quality Management System that is certified to comply with the International Standardization Organization ISO 9001 standard and the automotive industry's Technical Specification ISO/TS 16949 in June 2016. ISO 9001 is for the design and manufacture of slabs, blooms, billets, hot rolled flat, pickled and oiled, cold rolled and galvanized steel, tin mill products and long steel products and ISO/TS 16949:2009, third edition, for the manufacture of hot-rolled flat, pickled and oiled steel products, cold-rolled and galvanized steel products.

We also maintain a certification attesting that products furnished by our Araucária plant in the state of Paraná, Brazil, to the electrical and electronic equipment industries are in conformity with Directive 2011/65/EU of the European Parliament on the restriction of the use of certain hazardous substances in electrical and electronic equipment – RoHS.

Production Output

The following table sets forth, for the periods indicated, the annual production of crude steel within Brazil and by us and the percentage of Brazilian production attributable to us:

Crude Steel Production	**Brazil**	**CSN**	**CSN % of Brazil**
	(In millions of tons)		
2016	30.2	3.0	9.9%
2015	33.3	4.2	12.7%
2014	33.9	4.5	13.3%
2013	34.2	4.5	13.2%
2012	34.7	4.8	13.8%

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Source: Brazilian Steel Institute (*Instituto Aço Brasil*), or IABr.

The following table contains some of our operating statistics for the periods indicated:

Certain Operating Statistics

	2016 (In millions of tons)	**2015** (In millions of tons)	**2014** (In millions of tons)
Production of:			
Molten Steel	3.1	4.4	4.6
Crude Steel	3.0	4.2	4.5
Hot-Rolled Coils and Sheets	3.3	4.3	4.8
Cold-Rolled Coils and Sheets	2.3	2.5	2.5
Galvanized Products	1.8	1.4	1.6
Tin Mill Products	0.5	0.6	0.6

Consumption of Coal for Coke Batteries	1.3	1.3	1.6
Consumption of Coal for PCI	0.4	0.5	0.6

Raw Materials and Suppliers

The main raw materials we use in our integrated steel mill include iron ore, coke, coal (from which we make coke), limestone, dolomite, aluminum, tin and zinc. In addition, our production operations consume water, gases, electricity and ancillary materials.

Iron Ore

We are able to obtain the majority of our iron ore requirements from our Casa de Pedra and Engenho mines located in the State of Minas Gerais. The only iron ore product which we buy from third parties is pellet. For a description of our iron ore segment see "—Our Mining Segment."

Coal

In 2016, our metallurgical coal consumption totaled 1.61 million tons. Metallurgical coal includes coking coal and PCI coal, which is a lower grade coal injected into the blast furnaces, in a pulverized form, to reduce coke consumption. The PCI system reduces CSN's need for imported coke, thus reducing production costs. The total PCI coal consumption in 2016 totaled 0.35 million tons, all imported. The sources of the hard coking coal consumed in our plants in 2016 were as follows: USA (45.2%), Australia (52.8%) and Canada (2.0%) and for PCI: Russia (66.5%), Australia (33.5%).

During the first quarter of 2016, the coking coal benchmark price reached its lowest level since 2010 (US$81/MT). The following quarters presented a slight increase in prices due to a soft supply reduction. During the last quarter of 2016, we faced a severe supply reduction due to a new regulation established by China's National Develop and Reform Commission (NDRC), which reduced the number of working days at coal mines in China from 330 to 276. In addition, in September and October, two important Australian producers had their production disrupted following structural problems at their mines, invoking force majeure during 50 days. This scenario resulted in a sharp price increase, reaching US$311/mt at the spot market in November. As of December, the supply begun to recover and spot prices decreased to US$230/mt by the end of the year.

Coke

In 2016, in addition to the approximately 0.92 million tons of coke we produced, we also consumed 0.63 million tons of coke bought from third parties in China and Colombia, a decrease of 47.42% as compared to our consumption in 2015.

Limestone and Dolomite

Our Bocaina mine is located in Arcos, in the State of Minas Gerais, and has been supplying, since the early 1970s, limestone (calcium carbonate) and dolomite (dolomitic limestone) to our Presidente Vargas Steelworks in Volta Redonda. These products are used in the process of sintering and calcination. Arcos has one of the largest and highest quality reserves of limestone in the world, which is used in the production of various products, including clinker and cement.

The annual production of limestone and dolomite for our steelworks is approximately 3 million tons.

The main products obtained from limestone and dolomite that are transferred to our steelworks in Volta Redonda are:

- Limestone and dolomite calcination: with a granulometry between 32 and 76 mm, they are used in the lime plant in Volta Redonda to produce calcitic and dolomitic lime, for further use in the steelmaking process and sintering. At the steelworks, lime is used for chemical controlling of liquid slag, in order to preserve the refractory of the converters and assist in the stabilization of the chemical reactions that occur during the steel manufacturing process. During sintering, the purpose of lime is to increase the performance of this process and the final quality of the sinter that is produced.

- Limestone and dolomite fines for sintering: used in the production of “sinter,” in our steelworks. The sintering process mixes and heats together with fine ores, solid fuel and flux, producing a highly reactive granulated burden. The sinter is used in blast furnaces as the main source of iron for the production of pig iron.

Bocaina mine is alsoresponsible for supplying limestone for cement manufacturing in Volta Redonda and Arcos.

Aluminum, Zinc and Tin

Aluminum is mostly used for steelmaking. Zinc and tin are important raw materials used in the production of certain higher-value steel products, such as galvanized and tin plate, respectively. We typically purchase aluminum, zinc and tin from third-party domestic suppliers under one year contracts. Specifically in relation to tin, we purchase part of our demand from CSN's subsidiary ERSA. We maintain approximately 21, 15 and 29 days' inventory of tin, aluminum and zinc, respectively, at the Presidente Vargas Steelworks.

Other Raw Materials

In our production of steel, we consume, on an annual basis, significant amounts of spare parts, refractory bricks and lubricants, which are generally purchased from domestic suppliers.

We also consume significant amounts of oxygen, nitrogen, hydrogen, argon and other gases at the Presidente Vargas Steelworks. These gases are supplied by a third-party under a long-term contract from its gas production facilities located on the Presidente Vargas Steelworks site. In 2016, we used 513,140 tons of oxygen to produce 3.0 million tons of crude steel.

Water

Large amounts of water are also required in the production of steel. Water serves as a solvent, a catalyst and a cleaning agent. It is also used to cool, to carry away waste, to help produce and distribute heat and power and to dilute liquids. Our source of water is the Paraíba do Sul River, which runs through the city of Volta Redonda. Over 92% of the water used in the steelmaking process is recirculated and the balance, after careful processing, is returned to the Paraíba do Sul River. Since March 2003, the Brazilian government has imposed a monthly tax for our use of water from the Paraíba do Sul River, based on an annual fee of approximately R$1.530 million.

Electricity

Steelmaking requires significant amounts of electricity to power rolling mills, production lines, hot metal processing, coking plants and auxiliary units. In 2016, our Presidente Vargas Steelworks consumed approximately 2.64 million MWh of electric energy.

Our main source of electricity is our thermoelectric co-generation power plant at the Presidente Vargas Steelworks, which is fueled by the gases from the steel production process, with 235.2 MW of installed capacity. In addition, we have a 29.5% interest in the Itá Hydroelectric Power Plant in Santa Catarina, through a 48.75% equity interest in ITASA, and a 17.9% interest in the Igarapava Hydroelectric Power Plant in Minas Gerais, from which we have ensured energy take of 167 MW on average and 23 MW on average, respectively. In 2014, we installed a new turbine generator at the Presidente Vargas Steelworks, which added 21 MW to our existing installed capacity. This turbine is

located near our Blast Furnace No. 3, using the outlet gases from the iron making process to generate energy.

Natural Gas

In addition to electricity, we consume natural gas, mainly in our hot strip mill. Companhia Estadual de Gás do Rio de Janeiro S.A., or CEG Rio, which was privatized in 1997, is currently our major source of natural gas. Variations in the supply of gas can affect the level of steel production. We have not experienced any significant stoppages of production due to a shortage of natural gas. We also purchase fuel oil from Petrobras and Raízen. In 2016, the Presidente Vargas Steelworks consumed 360 million m^3 of natural gas.

The market for natural gas is strongly correlated with the electricity market. Brazilian electricity generation is based principally on hydroelectric power, itself dependent on the level of Brazil's reservoirs. As a contingency against low levels of rainfall, there are several thermoelectric power plants which use natural gas. Due to low levels of rainfall in 2013 and 2014, reservoirs reached their lowest level in the past ten years; consequently, the Brazilian Electricity System Operator (Operador Nacional do Sistema Elétrico), or ONS, increased the utilization of thermoelectric generation.

Diesel Oil

In mid-October 2006 and July 2008, we entered into agreements with Companhia Brasileira de Petróleo Ipiranga, or Ipiranga, to receive diesel oil in order to supply our equipment in our mining plants in the state of Minas Gerais, which provide the iron ore, dolomite and limestone used in our steel plant in Volta Redonda. In 2016, our consumption totaled 64,253 kiloliters of diesel oil, used to produce 32.174 million tons of iron ore, for which we paid R$121.2 million.

Suppliers

We acquire the inputs necessary for the production of our products in Brazil and abroad, with aluminum, zinc, tin, spare parts, refractory bricks, lubricants, oxygen, nitrogen, hydrogen and argon being the main inputs acquired in Brazil. Coal and coke are the only inputs acquired abroad. In 2016, we consumed 245,000 tons of third party slabs.

Our main raw materials suppliers are set forth below:

Main Suppliers	Raw Material
Vanomet and CSA	Slabs
Rio Tinto Coal, BHP, Drummond, AlphaCoal, Carbo One Limited, Jellimbah, Jim Walter Resources and Teck Coal	Coal
CI Milpa, Sinochen, Noble and Coeclerici	Coke
Ibrame, Latasa, and Alumbras	Aluminum
Votorantim Metais (1)	Zinc
White Solder, ERSA, andMelt Metais	Tin
Sotreq, Metso, Continental, Komatsu, Simplex, Mason, Minas Maquinas and Michelan	Spare parts
Magnesita, RHI, Vesuvius and Saint Gobain	Refractory bricks
Ipiranga and Cosan	Lubricants

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(1) We depend on Votorantim Metais as it is the only supplier of zinc in Brazil.

Flat Steel Mill

The Presidente Vargas Steelworks, located in the city of Volta Redonda, in the State of Rio de Janeiro, began operating in 1946. It is an integrated facility covering approximately 4.0 square km and containing five coke batteries (three of which are currently in operation), three sinter plants, two blast furnaces, a basic oxygen furnace steel shop, or BOF shop, with three converters, three continuous casting units, one hot strip mill, three cold strip mills, two continuous pickling lines, one continuous annealing line, 28 batch annealing furnaces, three continuous galvanizing lines, four continuous annealing lines exclusively for tin mill products and six electrolytic tinning lines.

Blast Furnace No. 2 was taken out of service by the end of 2015 and remained under maintenance until October 2016, at which time we decided to restart it. After 10 days of resumed operations, Blast Furnace No.2 returned to its regular production capacity. The annual production capacity of steel at the Presidente Vargas Steelworks was 5.6 million tons.

Our major operational units and corresponding effective capacities as of December 31, 2016, including CSN LLC and Lusosider, are set forth in the following chart:

Effective Capacity

	Tons per year	Equipment in operation
Process:		
Coking plant	1,525,000	3 batteries
Sintering plant	6,360,000	3 machines
Blast furnace	5,380,000	2 furnaces
BOF shop	5,750,000	3 converters
Continuous casting	5,600,000	3 casters
Finished Products:		
Hot strip mill	5,100,000	1 mill
Cold strip mill	4,700,000	6 mills
Galvanizing line	2,095,000	7 lines
Electrolytic tinning line	930,000	5 lines

Downstream Facilities

CSN Paraná

Our CSN Paraná branch produces and supplies plain regular galvanized products, Galvalume® products and pre-painted steel products for the automotive, construction and home appliance industries. The plant has an annual capacity of 330,000 tons of galvanized products and Galvalume® products, 130,000 tons of pre-painted products, which can use cold-rolled or galvanized steel as substrate, service capacity of 150,000 tons of sheets and narrow strips, and 220,000 tons of pickled hot-rolled coils in excess of the coils required for the coating process.

CSN Porto Real

Our CSN Porto Real branch produces and supplies plain regular galvanized, Galvanew® and tailored blanks mainly for the automotive industry. The plant has an annual capacity of 350,000 tons of galvanized products, including Galvanew® products, and 150,000 tons of tailored blanks, sheets and narrow strips, which can use cold-rolled or galvanized steel as a substrate.

Metalic

In November 2016, we sold a 99.99% stake in Metalic to Can-Pack Brasil Indústria de Embalagens Ltda., a Brazilian subsidiary of Can-Pack S.A., a Polish metal packaging producer, for the amount of R$372.5 million. For more information regarding this sale, see Note 4 to our consolidated financial statements included in "Item 18. Financial Statements."

Prada

We have a 99.99% ownership interest in Cia. Metalúrgica Prada, or Prada. Established in 1936, Prada is the largest Brazilian steel can manufacturer and has an annual production capacity of over one billion cans in its three industrial facilities: two located in the state of São Paulo and one in the state of Minas Gerais. Currently, we are the only Brazilian producer of tin plate, Prada's main raw material, which makes Prada one of our major customers of tin plate products. Prada has important clients in the food and chemical industries, including packages of vegetables, fish, dairy products, meat, aerosols, paints and varnishes, and other business activities.

Prada Distribuição is one of the leaders in the Brazilian distribution market for steel products with 460,000 tons per year of installed processing capacity. Prada Distribuição has one steel service center and six distribution centers strategically located in the Southeast region of Brazil. The service center is located in the city of Mogi das Cruzes between the cities of São Paulo and Rio de Janeiro. Its product mix also includes sheets, slit coils, sections, tubes and roofing in standard or customized format, according to clients' specifications. Prada Distribuição processes the entire range of products produced by us and services 4,000 customers annually from the civil construction, automotive and home appliances sectors, among others.

Companhia Siderurgica Nacional, LLC

CSN LLC holds the assets of former Heartland Steel, a flat steel processing facility in Terre Haute, Indiana. This facility has an annual cold rolling production capacity of 800,000 tons of full hard cold rolled coils. Delivery capacity of cold-rolled and galvanized products are 280,000 and 315,000 tons/year, respectively. Currently, CSN LLC is obtaining raw materials by buying hot rolled coils directly from mills in the United States or importing from mills abroad. See “Item 4B. Government Regulation and Other Legal Matters—Proceedings Related to Protectionist Measures—United States” for a discussion about anti-dumping issues on Brazilian hot coils exports to the United States.

Lusosider, Aços Planos, S.A.

We own 99.94% of Lusosider, a flat steel processing facility located in Seixal, near Lisbon, Portugal. Lusosider has the capacity to produce approximately 50,000 tons of hot-rolled pickled coils, 50,000 tons of cold-rolled and 240,000 tons of galvanized products per year. Its main customers include service centers and tube making industries.

CSN Distribuição

We have two service centers, one located in the city of Camaçari, in the State of Bahia and one in the city of Jaboatão dos Guararapes, in the state of Pernambuco, to support sales in the Northeastern and Northern regions. There is also a Distribution Center in the city of Canoas, in the state of Rio Grande do Sul, to support sales in the Southern region of Brazil.

Long Steel Mills

SWT

In February 2012, we acquired Stahlwerke Thuringen, or SWT, located in Unterwellenborn, Germany, which marked our entrance into the long steel market. SWT specializes in the production of profiles, including IPE (European I Beams) and HE (European Wide Flange Beams) sections, channels and UPE (Channels with Parallel Flanges) sections and steel sleepers. In total, more than 200 types of sections are produced according to different German and international standards.

Production Output - SWT

	2016	2015	2014
		(In thousands of tons)	
Production of:			
Beam Blank (Crude Steel)	823	794	844
Long Steel (Finished Products)	782	743	758

Raw Materials and Suppliers

Raw Materials and Energy Requirements

The main raw material we use in our long steel operation is scrap. In addition, our production operations consume electricity, natural and technical gases and ancillary materials like ferroalloys, lime, dolomite and foaming coal.

Scrap

In 2014 and 2015, scrap prices decreased significantly. In 2016, scrap prices depreciated approximately 15% compared to the previous year. Our scrap consumption totaled approximately 0.93 million tons and accounted for nearly 56% of our production costs. We are able to obtain 70% of our scrap needs from within a 250 km vicinity.

Ferroalloys, lime and foaming coal

Because we do not own any sources of alloys, lime or foaming coal, we have to buy these materials in the spot market. Our traders are located mostly in Europe and the materials come from different producers around the world.

Rolls

We consume different types of rolls in our rolling mill, usually cast rolls which come from Germany, Italy, Slovenia and China.

Graphite electrodes

In the smelting shop (electric arc furnace) we use graphite electrodes with a diameter of 750mm and in the ladle furnace we use electrodes with a diameter of 400mm. The electrodes come from Europe, Japan and China.

Other raw materials

In our production of steel we consume, on an annual basis, amounts of electrodes, rolls, refractory materials and materials for packaging and spare parts, which are mostly purchased from domestic suppliers.

Water

Large amounts of water are required in the production process. Our source of water is the Saale river, located 5 km from the plant. We use our own water station to pump water via pipelines to the plant.

Electricity and Natural Gas

Steelmaking also requires significant amounts of electricity and natural gas, for which we have supply contracts. Under normal conditions, we consume approximately 410 MW of firm guaranteed output of electric energy and 450 million m³ of natural gas.

Suppliers

We acquire the inputs necessary for the production of our products in Germany and other countries.

Our main raw materials suppliers are set forth below:

Main Suppliers	Raw Material
Scholz, TSR	Scrap
Verbund	Electric Energy
E.on Ruhrgas	Natural gas
RHI	Refractory
SGL, Graftec, NCK	Electrodes
Siemens, Schneider, Voith	Spare parts
Irle, Walzengießerei Coswig	Rolls

Facilities - SWT

SWT possesses a 28 km internal railway system and the logistics infrastructure to ensure the supply of scrap and the delivery of finished products. The main markets served by SWT include: non-residential construction, equipment industries, engineering and transport, in Germany and neighboring countries, including Poland and the Czech Republic.

Effective Capacity - SWT

	Tons per year	Equipment in operation
Process:		
EAF – Electric Arc Furnace	1,100,000	1 furnace
Ladle Furnace	1,100,000	1 furnace
Finished Products:		
Section mill	1,000,000	1 mill

Volta Redonda EAF Mill

Plant Characteristics

We completed a new plant mill for production of long steel products in Volta Redonda and started assisted operations in December 2013. In 2014, we started ramping up the production process. The plant consists of a 50t electric arc steelmaking furnace, 50t ladle metallurgy, continuous casting machine for billets and a hot rolling mill for wire rod and reinforcing bar. We expect this plant to reach up to 500,000 t/year output when fully operational, providing the domestic market with products for civil construction and high quality drawing and cold heading applications.

Steelmaking Shop

Designed for an output of 400,000 t/year, this unit mainly consists of one 50t UHP, AC electric arc furnace, one 50t ladle furnace, one continuous casting machine for billets with three strands, mobile equipment and cranes, power supply, distribution facilities and auxiliary equipment.

Rolling Mill

Designed for an output of 500,000 t/year, this unit has one walking-beam reheating furnace, or RHF, a 4-stand blooming mill, a 250t hot shear, a 6-stand roughing mill, a 6-stand intermediate mill, a 6-stand pre-finishing mill, internal water cooling, a double length flying shear, a stepping cooling bed, a 500t cold shear, transfer inspection stand, bundling machine, a water-cooling section before wire finishing mill, a 10-stand high-speed wire finishing mill, a water-cooling section after wire finishing mill, a laying head, a loose coil cooling line, reforming device, bundling machine, stripper and coil handling devices.

Production Output

Certain Operating Statistics (In thousands of tons)	2016	2015	2014
Production of:			
Billets (Crude Steel)	197	151	105
Long Steel (Finished Products)	186	131	93

Raw Materials and Energy Suppliers

The main raw material we use in our long steel operation in Volta Redonda is scrap, in addition to pig iron. We also use blooms, which we produce at our BOF shop. In addition, our production operations consume electricity, natural and technical gases and ancillary materials like ferroalloys, lime, dolomite and foaming coal. The supply sources for these materials are the same used for our flat steel operations. See “Item 4B. Business Overview—Raw Materials and Suppliers.”

Our Mining Segment

Our mining activities are among the largest in Brazil and are mainly driven by the exploration of one of our iron ore reserves, Casa de Pedra, in the State of Minas Gerais. We sell our iron ore products mainly in Asia, Europe and Brazil with sales and marketing taking place through our principal hubs in Minas Gerais, Brazil, and Austria.

Our Mines

Location, Access and Operation

Casa de Pedra

Casa de Pedra is an open pit mine located in the city of Congonhas, in the State of Minas Gerais, Brazil, approximately 80 km south of the city of Belo Horizonte and 360 km north of the city of Rio de Janeiro. The site is approximately 1,000 meters above sea level and accessible from the cities of Belo Horizonte or Congonhas through mostly paved roads.

Casa de Pedra mine is a hematite-rich iron deposit of an early proterozoic banded iron formation in Brazil's Iron Ore Quadrangle (*Quadrilátero Ferrífero*), which is located in the central part of the State of Minas Gerais in the Southeastern region of Brazil and has been one of the most important iron producing regions in Brazil for the last 50 years. It was incorporated into CSN in 1941, but has been in operation since 1913.

The operational fleet at our Casa de Pedra mine has an installed annual ROM capacity of approximately 100 million tons, and our treatment facilities have an installed capacity of 33 million tons of products per year. In Casa de Pedra we use electrical power provided by hydroelectric plants.

Casa de Pedra mine supplies all of our iron ore needs except pellets, producing lump ore, sinter feed and pellet feed fines with high iron content. The map below illustrates the location of our Casa de Pedra mine:

Engenho

Engenho is also an open pit located in the Southwestern region of the Iron Ore Quadrangle, 60 km south of the city of Belo Horizonte and is accessible from the cities of Belo Horizonte or Congonhas through mostly paved roads.

Casa de Pedra and Engenho mines are now part of a company named CSN Mineração, which resulted from the combination of the iron ore and related logistic assets of CSN and Namisa. See "Item 5A. Operating Results—Specific Events Affecting our Results of Operations" for more information on the transaction.

Fernandinho

The Fernandinho mine is located in the city of Itabirito, in the State of Minas Gerais. This city is located in the Mid-Eastern region of the State of Minas Gerais and approximately 40 km from the city of Belo Horizonte. Fernandinho is an open pit mine and is accessible from the cities of Belo Horizonte or Itabirito through mostly paved roads.

The Fernandinho mine also started operations in 1950 and production is currently on hold due to its low profitability given the current level of iron ore prices.

Limestone and Dolomite Mine

Our extraction and preparation of limestone and dolomite is done at our Bocaina mining facility located in the city of Arcos, in the State of Minas Gerais. Bocaina is an open pit mine and it can be accessed from the cities of Belo Horizonte, located approximately 230 km away, and Volta Redonda (where the Presidente Vargas Steelworks is situated), located approximately 462 km away, through mostly paved roads.

In 2016, a new crushing plant started, increasing the installed capacity to approximately 15 million tons per year. This mining facility has sufficient limestone and dolomite reserves to adequately supply our steel production at current levels for 39 years.

Tin

We own a tin operation in Itapuã do Oeste, in the State of Rondônia, through our subsidiary Estanho de Rondônia S.A. (ERSA). This facility has an installed annual production capacity of approximately 3,200 tons of tin, which we use substantially as a raw material to produce tin plate, a coated steel product. A small part of our tin production that is not used as raw material is sold to third parties; however, the results from these sales are insignificant to our consolidated results.

Mineral Rights and Ownership

The Mining Code and the Brazilian Federal Constitution impose requirements on mining companies relating to, among other things, the manner in which mineral deposits are exploited, the health and safety of workers, the protection and restoration of the environment, the prevention of pollution and the promotion of the health and safety of local communities where the mines are located. The Mining Code also imposes certain notifications and reporting requirements.

We hold concessions to mine iron ore, limestone and dolomite. We purchase manganese in the local market. We own 87.52% of CSN Mineração mines and 100% of Bocaina and Santa Bárbara mines. In addition, each mine is an “open pit” mine. Iron ore extraction, crushing, screening and concentration are done in three different sites: Casa de Pedra mine and Pires beneficiation plant (all CSN Mineração’s property) and Fernandinho mine, a Minérios Nacional’s property.

Casa de Pedra

Our mining rights for Casa de Pedra include the mine, a beneficiation plant, roads, a loading yard and a railway branch and are duly registered with the Brazilian Department of Mineral Production (*Departamento Nacional de Produção Mineral*), or DNPM. DNPM has also granted us easements in 19 mine areas located in the surrounding region, which are not currently part of Casa de Pedra mine.

We believe we have obtained and are in compliance with all licenses and authorizations for our operations and projects at Casa de Pedra mine.

Exploration undertaken at the Casa de Pedra mine is subject to mining lease restrictions, which were reflected in our iron ore reserve calculations. Quality requirements (chemical and physical) are the key “modifying factors” in the definition of ore reserves at Casa de Pedra and were properly accounted for by us.

Mineral Reserves

The following table sets forth for each of our mines the type of mine, period of operation, projected exhaustion dates and percentage of our interest:

Mine	Type	Operating Since	Projected exhaustion date	CSN % interest
Iron:				
Casa de Pedra (Congonhas, Minas Gerais)	Open pit	1913	2040	87.52
Engenho (Congonhas, Minas Gerais)	Open pit	2007 (Start of operation by Namisa)	2040	87.52
Fernandinho (Itabirito, Minas Gerais)	Open pit	2007 (Start of operation by Namisa)	2039	100
Limestone and Dolomite:				
Bocaina (Arcos, Minas Gerais)	Open pit	1946	2055	100
Tin				
Santa Barbara (Itapuã do Oeste, Rondonia)	Open pit	1950	2054	100

The table below sets forth our estimates of proven and probable reserves and other mineral deposits at our mines reflecting the results of reserve studies. They have been calculated in accordance with the technical definitions contained in the SEC's Industry Guide 7, and estimates of mine life described herein are derived from such reserve estimates. The mineralized material disclosed are for the entire mines, and not just for our proportional interest in the mines.

In the most recent reserve audit conducted in 2014, the losses for mine dilution and mining recovery considered were 5% each for both Casa de Pedra and Engenho mines.

In 2014, we audited resources and reserves for Casa de Pedra and Engenho mines and only resources for Fernandinho mine. We do not have audited resources/reserves studies for our Bocaina mine, thus the resources/reserves presented in the table below were not audited by any third parties for that mine. As for our Santa Barbara mine, we do not have reserve estimates and do not currently plan to begin campaigns to complete a study in connection with this property in light of its low materiality to our business.

(1) Reserves means the part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination. We do not have reserve audits for the Fernandinho mine. The reserves for the Casa de Pedra and Fernandinho mines were audited in December, 2014, and we have reduced the amount of proven reserves by our annual production since then.
(2) Represents ROM material.
(3) Grade is the proportion of metal or mineral present in ore or any other host material.
(4) Represents total product tonnage after mining and processing losses.
(5) Means reserves for which: (i) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling; and (ii) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well- established.
(6) Means reserves for which quantity and grade and /or quality are computed from information similar to that used for proven (measure) reserves, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven (measure) reserves, is high enough to assume continuity between points of observation.

The metallurgical recovery factor is the proportion of iron in the ore delivered to the processing plant that is recovered by the metallurgical process. In 2016, the metallurgical recovery factor obtained by Casa de Pedra concentration plant was 80.8%. In 2016, the Pires plant was operated through a dry process and had no metallurgical recovery factor.

The cutoff grade is the minimum ore percentage that determines which material will be fed in the processing plant. The cutoff grade value for Casa de Pedra and Engenho mines considered in the most recent audit is 23.37%.

The prices used in the 2014 audit for the estimation of Casa de Pedra reserves are shown in the following table. As shown, the product price we assumed to estimate our reserves is based on expectations of an average long term price of US$90 per ton, considering that as a reasonable price for a sustainable development of the iron ore market.

	Price for the three years prior to the audit (US$/t)			Long term average (US$/t)
	2011	2012	2013	Assumption
Platts 62Fe CFR N.China ($/dmt)	169	130	135	90

Casa de Pedra

In 2012, we started a multi-year study of our iron ore resources and reserves at Casa de Pedra. The study consists two stages, the first stage of which was completed at the end of October 2013, and the second stage, which involves more drillings and research of the deposit, was concluded in December 2014. Both stages of this new study of resources and reserves of Casa de Pedra mine are in accordance with best pratices in the iron ore market. We had drilled 106,919.58 and 21,013.95 meters in the first and second stages, respectively.

We conducted extensive work throughout 2014 to document and classify all information related to both the current and future operations of the Casa de Pedra mine. In 2014, we hired Snowden Group to undertake an independent analysis of the Casa de Pedra iron ore resources and reserves. Snowden carried out a full analysis of all available information and has independently validated our reported resources and reserves.

Snowden accepts as appropriate the estimates regarding proven and probable reserves made by us, totaling 2,704 million tons of iron ore (as of December 31, 2014) at a grade of 41.36% Fe and 36.46% SiO2. This new estimate of our iron ore reserves at Casa de Pedra is significantly larger than our estimate of 1,631 million tons contained in an appraisal report prepared in 2006 by Golder Associates.

Over the course of the Casa de Pedra Mine’s life we have executed different drilling campaigns andwe are currently executing only short term drilling campaign of about 1,150 meters per year.

Engenho and Fernandinho

In 2012, we started the same process used at Casa de Pedra to identify iron ore resources and reserves at the Engenho in two stages.

We conducted extensive work throughout 2014 to document and classify all information related to both the current and future operations of the Engenho and Fernandinho mines. In 2014, we hired Snowden Group to conduct an independent analysis of the Engenho iron ore resources and reserves and Fernandinho resources. Snowden carried out a full analysis of all available information and has independently validated our reported resources and reserves.

Snowden accepts as appropriate the estimates regarding proven and probable reserves made by us, totaling 317 million tons of iron ore for Engenho (as of December 31, 2014) at a grade of 39.48% Fe and 40.01% SiO2.

From November 2012 to October 2013 we drilled 9,954.8 meters and 8,107.4 meters until December 2014.

Production

Casa de Pedra

The Casa de Pedra facilities are located in the city of Congonhas, in the State of Minas Gerais. The Casa de Pedra mine is located 350 km from the Presidente Vargas Steelworks and supplies iron ore products to our steel mill, as well as for export through the Itaguaí Port. Casa de Pedra's equipment fleet and treatment facilities have an installed annual ROM capacity of approximately 100 million tons.

Pires and Fernandinho Beneficiation Plants

Pires plant is the beneficiation plant of CSN Mineração. The plant receives material from Engenho mine (located at the Northern border of the Casa de Pedra mine) and processes crude ore acquired from other companies, which, along with its own ROM, generates final products such as: lump ore, sinter feed and concentrates.

Fernandinho plant receives material from Fernandinho mine (located in the city of Itabirito) and generates sinter feed and fines as final products.

The table below sets forth production of iron ore of our mines for the last three years:

Casa de Pedra [(2)] (Mt)	**21.65**	**26.24**	**29.46**
Grade (%)	63.8%	63.8%	63.1%
Pires [(2)] (Mt)	**3.8**	**1.6**	**2.71**
Grade (%)	62.1%	63.9%	61.0%
Fernandinho[(2)] (Mt)	**0.6**	**0.0**	**0.0**
Grade (%)	59.5%	-	-

(1) In addition to its own production, Namisa also purchased iron ore from third parties. Third party purchase volumes totaled, 8.3 million tons and 3.1 million tons in 2014 and 2015, respectively. In 2016, CSN Mineração purchased 3.4 million tons from third parties.

(2) Production information considers 100% of the mines.

Consolidated Sales (Mt)	**28.88**	**25.67**	**36.98**
Consolidated Net Revenue Per Unit (US$/t)	**64**	**26.91**	**35.59**

(1) Consolidated sales consider 100% of Namisa's Sales Volume until November 2015 (considering our proportionate interest of 60% in Namisa until November 2015, the iron ore sales volume were 25.24 Mt and 23.86 Mt in 2014 and 2015, respectively).

(2) Since December 2015, we have been considering 100% stake of CSN Mineração.

Distribution

Transportation costs are a significant component of our steel and iron ore production costs and are a factor in our price competitiveness in the export market. Railway is the main means of transport by which we convey raw materials from our mines to the Presidente Vargas Steelworks and steel and iron ore products to ports for shipment overseas. Iron ore, limestone and dolomite from our two mines located in the State of Minas Gerais are transported by railroad to the Presidente Vargas Steelworks for processing into steel. The distances from our mines to the Presidente Vargas Steelworks are 328 km and 455 km. The distances from our mines to the ports are 440 km and 160 km. Imported coal and coke bought from foreign suppliers are unloaded at the port of Itaguaí, 90 km west of the city of Rio de Janeiro, and shipped 109 km by train to the Presidente Vargas Steelworks. Our finished steel products are transported by train, truck and ships to our customers throughout Brazil and abroad. Our most important local markets are the cities of São Paulo (335 km from the Presidente Vargas Steelworks), Rio de Janeiro (120 km) and Belo Horizonte (429 km).

Until recently, Brazil's railway system (including railcars and tracks) was principally government-owned and in need of repair, but it has now been largely privatized. In an attempt to increase the reliability of our rail transportation, we hold interests in companies that hold concessions for the main railway systems we use. For further information on our railway concessions, see "—Facilities—Railways."

We export iron ore and import coal and coke through the Itaguaí Port, in the State of Rio de Janeiro. The coal and container terminals have been operated by us since August 1997 and 1998, respectively.

Our Logistics Segment

Our logistics segment is comprised of railway and port facilities.

Railways

Southeastern Railway System

MRS has a 30-year concession to operate, through the year 2026 and renewable for an equal period of 30 years, Brazil's Southeastern railway system. As of December 31, 2016, we held 34.94% of MRS's total capital. For more information see "Item 5E. Off-Balance Sheet Arrangements." The Brazilian Southeastern railway system, with 1,643 km of track, serves the São Paulo - Rio de Janeiro - Belo Horizonte industrial triangle in Southeast Brazil, and links our mines located in the State of Minas Gerais to the ports located in the states of São Paulo and Rio de Janeiro and to the steel mills of CSN, Companhia Siderúrgica Paulista or Cosipa, and Gerdau Açominas. In addition to serving other customers, the railway transports iron ore from our mines at Casa de Pedra in the State of Minas Gerais and coke and coal from Itaguaí Port in the State of Rio de Janeiro to the Presidente Vargas Steelworks and transports our exports to the ports of Itaguaí and Rio de Janeiro. The railway system connects the Presidente Vargas Steelworks to the container terminal at Itaguaí Port, which handles most of our steel exports. Our transport volumes represent approximately 24% of the Brazilian Southeastern railway system's total volume. We are jointly and severally liable, along with the other main MRS shareholders, for the full payment of the outstanding amount of its indebtedness (See "Item 5E. Off-Balance Sheet Arrangements"). However, we expect that MRS will make the lease payments through internally generated funds and proceeds from financing.

Northeastern Railway System

We hold interest in companies that have concessions to operate the Northeastern railway system, which operates in the states of Maranhão, Piauí, Ceará, Paraíba, Pernambuco, Alagoas and Rio Grande do Norte and connects with the

region’s leading ports, offering an important competitive advantage through opportunities for intermodal transportation solutions and made-to-measure logistics projects.

In 1997, we were awarded a concession granting the exclusive right to operate cargo railway transportation at the RFFSA, which we currently call Northeastern Railway System I, effective January 1, 1998, and the preference to operate cargo railway transportation in any new tracks of the Northeastern Railway System that the Brazilian government elected to build.

In 2005, we executed a letter of intent with the Brazilian government (the grantor of this concession) to enable the development of new tracks and certain other improvements of the Northeastern Railway System, in a project called "Nova Transnordestina." The Nova Transnordestina project discussions resulted in the execution, in 2013 and 2014, of a TAC, which settled all claims of non-compliance by us with the original concession agreement until 2012, and multiple agreements, including an investment agreement (discussed below) and a new concession, pursuant to which we were granted the right to develop and operate new tracks and the Northeastern Railway System management was divided in two sub-railway systems:

(i) Northeastern Railway System I, which is in operation by our subsidiary FTL, encompasses the RFFSA network, covering the stretches between the cities of São Luís – Mucuripe, Arrojado – Recife, Itabaiana – Cabedelo, Paula Cavalcante – Macau and Propiá – Jorge Lins, with 4,238 km of railways, , of wich 1,191 km are operational and the rest are in negociation process with the National Agency for Ground Transportation (*Agência Nacional de Transportes Terrestres*), or ANTT. As of December 31, 2016, we held 90.78% of the capital stock of FTL and its concession extends until 2027, renewable for an additional 30 years. As of December 31, 2016, R$95.4 million in concession payments were outstanding over the remaining 11 years of the concession.

(ii) Northeastern Railway System II, which is under construction by our jointly controlled investee TLSA, will encompass the new network, covering the stretches between the cities of Missão Velha – Salgueiro, Salgueiro – Trindade, Trindade – Eliseu Martins, Salgueiro – Porto de Suape and Missão Velha – Porto de Pecém, with an expected extension of 1,753 km that will connect the interior of Northeast Brazil to Pecém and Suape Ports. As of December 31, 2016, we held 49.01% of the capital stock of TLSA and its concession extends until the earlier of 2057 or the date when TLSA reaches a rate of annual return of 6.75% of its invested capital.

On September 20, 2013, we entered into an investment agreement, or TLSA Investment Agreement, with our partners in TLSA, Valec Engenharia, Construções e Ferrovias S.A., or Valec, and Fundo de Desenvolvimento do Nordeste, or FDNE, two Brazilian government entities focused on infrastructure and the development of the northeastern region. Under the TLSA Investment Agreement we and our partners agreed on a budget of R$7.5 billion to complete the construction of the Northeastern Railway System II. A revised budget of approximately R$11.2 billion has been already approved by FINOR, or Fundo de Investimentos do Nordeste, and it is currently being revised and under approval by FDNE. If the construction of Northeastern Railway System II requires funds in addition to the budget, they will be provided by us or third parties under Trackage Right Agreements.

The TLSA Investment Agreement also provides for indicative terms and conditions, including amounts, under which Banco Nacional de Desenvolvimento Econômico e Social – BNDES, agreed to provide long-term financing for the completion of Northeastern Railway System II. Although we have received indicative terms, the financing is subject to several conditions, including the satisfactory completion of internal and credit approval processes by lenders. If any of the conditions are not met, including final credit approval by the lenders in terms and costs reasonable to us, we may not be able to obtain the financing. The other long-term financing from FDNE and FNE, or Fundo Constitucional de Desenvolvimento do Nordeste, has been already taken by TLSA.

The TCU – Tribunal de Contas da União - has initiated a proceeding questioning the legality of certain aspects of the concession contract for the Northeastern Railway System II, which has contributed to a slow pace of construction of the new tracks, and the ANTT has initiated a proceeding claimingTLSA did not comply with the terms of the concession contract for the Northeastern Railway System I. In April 2017, the Brazilian government created an inter-ministerial working group comprised of variousGovernment representatives in order to identify and implement alternatives to continue the Northeastern Railway System projects, which may include the settlement of the TCU and ANTT proceedings. See “Item 8A. Financial Information—Consolidated Statements and Other Financial Information—Legal Proceedings—Northeastern Railway System Proceedings.”

Port Facilities

Solid Bulks Terminal

We operate an integrated and modern logistics structure. Part of this structure includes the operation of TECAR through a concession renewed in 2015 and expiring in 2047.

TECAR is connected to road and rail systems across Southeastern Brazil and is one of the four port terminals that make up the Port of Itaguaí facilities. With a strategic location and a total area of 740,761 m², the terminal consists of a concrete molded berthing pier superposed on jacketed stilts connected to the mainland by an access bridge perpendicular to the berthing pier. Its backyard includes conveyor belts, an internal road system, bulk storage yards, a railway looping, as well as industrial and administrative facilities.

Our imports of coal and coke and exports of iron ore occur through this terminal. Under the terms of the concession, we have the obligation to unload at least 3.0 million tons of coal and coke annually and, as of 2020, to ship 38.4 million tons of iron ore annually. Among the approved investments that we had previously announced was the development and expansion of the solid bulks terminal at Itaguaí; its phase 1 expansion to handle up to 45 million tons of iron ore per year was completed in 2013. For further information, see "—D. Property, Plant and Equipment—Planned Investments—Mining."

Container Terminal

We own 99.99% of Sepetiba Tecon S.A., or TECON, which has a concession to operate the container terminal at Itaguaí Port for a 25-year term expiring in 2026, that is renewable for another 25 years. As of December 31, 2016, approximately US$86 million of the cost of the concession remained payable over the next 10 years of the contract. For more information, see "Item 5E. Off-Balance Sheet Arrangements."

The Itaguaí Port is located in Brazil's Southeast Region, with all major exporting and importing areas of the states of São Paulo, Minas Gerais and Rio de Janeiro within 500 km from the port. This area represented more than 55% of the Brazilian gross domestic product, or GDP, in 2014, according to the Brazilian Geography and Statistics Institute (Instituto Brasileiro de Geografia e Estatística).

The Brazilian Federal Port Agency has made investments in port infrastructure projects such as expanding the maritime access channel to the Itaguaí Port and increasing its depth. In addition, significant investments were made by the Brazilian government in adding two extra lanes to the Rio-Santos road, and in constructing the Rio de Janeiro Metropolitan Bypass, a beltway that crosses the Rio de Janeiro metropolitan area. Favorable natural conditions, such as natural deep waters and a low urbanization rate around the port area, allow the operation of large vessels as well as highly competitive prices for all services rendered.

We have invested in infrastructure and equipment at Sepetiba TECON, such as the Berth 301 Equalization, the acquisition of two new Super Post Panamax Ship-to-Shore Cranes and four new RTG cranes for yard operations, that were delivered in the first quarter of 2014. These investments, along with the previous ones, like the dredging of Sepetiba Tecon's Berths 302/303 and access channel to 15.5m depth, increased TECON's capacity from 320,000 containers (or 480,000 TEUs) to 440,000 containers (or 660,000 TEUs) per year. In 2016, we started to invest in the

automation process through systems and equipment, in physical restructuring of the yard and in dredging for terminal access adequacy for the unrestricted receipt of large ships. These investments are expected to be concluded in 2017.

Due to the global shipping downturn associated with the effects of overcapacity and decline in freight prices, the shipowners adjusted their scales to concentrate them at the port of Santos. Therefore, in 2016, there was a decrease in the volume of containers operated by the terminal, which handled 140,024 units, a decrease of 8% compared to 2015.

We exported 804,460 tons of steel products in 2016, a decrease of 13% compared to 926,155 tons in 2015. In other cargo, we also handled a volume of 24,576 tons.

Our Cement Segment

Our cement segment is comprised of cement plant in Volta Redonda, in the state of Rio de Janeiro, and in Arcos, in the state of Minas Gerais.

In 2015, two new grinding facilities were delivered in Arcos, increasing its annual capacity by 2.3 million tons of cement. In 2016, a new clinker kiln line was delivered allowing CSN to achieve self-sufficiency in the production of this raw material.

Production

The cement production is held at Volta Redonda and Arcos and begins with the influx of raw materials: clinker, limestone, gypsum and slag. The clinker is produced in our plant in Arcos, where limestone, clay and other correctives such as iron ore and bauxite are ground in a raw mill and calcined inside the kiln. The clinker and limestone are stored in silos and warehouses and come in part from Arcos to Volta Redonda by rail. Slag is a by-product of iron and steel, produced in the blast furnace, and is also stored in the warehouse, arriving at the plant by road. CSN uses natural gypsum, which arrives at the plant by truck and is stored in the warehouse.

All transportation of raw materials within the plant is carried out by conveyor belts, placing inputs in scales according to a predefined formula and delivering them to the mills. In Volta Redonda, there are two grinding lines and each mill has a nominal capacity of 170 tons/h and in Arcos the other two grinding lines have a nominal capacity of 160 tons/h each, resulting in an annual plant capacity of 2.4 million tons of cement in Volta Redonda and 2.3 million tons in Arcos. The mill has a hydraulic roller system, which uses pressure to grind the layer of material on the turntable. In Volta Redonda, a hot gas, derived from the combustion of natural gas or petroleum coke, is used in the mills to dry materials.

The types of cement we produce are: CP III-40 RS, CP II-E-32,CP II-E-40 and CP II-F in bagged and bulk forms. Our Volta Redonda plant has four silos, two of them with 10,000 tons of capacity and two with 5,000 tons of capacity. Our Arcos plant has a multichamber silo with 7 chambers and 28,000 tons of total capacity. Cement can be shipped in bagged and bulk forms.

Our Energy Segment

Our energy segment is comprised of generation plants and is aimed at enabling us to maintain our self-sufficiency in energy, reducing our production cost and our exposure to fluctuations or availability of certain energy sources.

Our energy related assets include:

Thermoelectric Co-Generation Power Plant

We completed the construction of a 235.2 MW thermoelectric co-generation power plant at the Presidente Vargas Steelworks in December 1999. Since October 2000, the plant has provided the steelworks with approximately 60% of the electric energy needed in its steel mills. Aside from operational improvements, the power plant supplies our strip mills with electric energy, processed steam and forced air from the blast furnaces, benefiting the surrounding environment through the elimination of flares that burn steel-processing gases into the atmosphere. In addition, we installed a new turbine generator in 2014, which added 21 MW to our existing installed capacity. This turbine is located near our Blast Furnace No. 3, and uses the outlet gases from the iron making process to generate approximately 11,72 MW of firm guaranteed output energy in 2016.

Itá Hydroelectric Facility

CSN and ENGIE each own 48.75% of ITASA, a special-purpose company formed for the purpose of owning and operating, under a 30-year concession granted in 2000, 60.5% of the Itá hydroelectric facility on the Uruguay river in Southern Brazil. Companhia de Cimento Itambé, or Itambé, owns 2.5% of ITASA. Tractebel directly owns the

remaining 39.5% of the Itá hydroelectric facility.

The power facility was built using a project finance structure with an investment of approximately US$860 million. The long-term financing for the project was closed in March 2001 and consisted of US$78 million in debentures issued by ITASA, a US$144 million loan from private banks and US$116 million of direct financing from BNDES, all of which were paid in February 2013. The sponsors of the project have invested approximately US$306 million in this project.

Itá has an installed capacity of 1,450 MW, with a firm guaranteed output of 668 MW, and became fully operational in March 2001.

We and the other shareholders of ITASA have the right to take our pro rata share (proportional to our ownership interest in the project) of Itá's output pursuant to 30-year power purchase agreements at a fixed price per megawatt hour, adjusted annually for inflation. Since October 2002, we have been using our entire Itá take internally.

Igarapava Hydroelectric Facility

We own 17.9% of a consortium that built and has the right to operate for 30 years the Igarapava hydroelectric facility. Other consortium members are Aliança, Votorantim Metais Zinco and AngloGold Ashanti Mineração Ltda. The plant has an installed capacity of 210 MW, corresponding to 136 MW of firm guaranteed output. We have been using our 23 MW take from Igarapava to supply energy to the Arcos mines and our other units.

Marketing Organization and Strategy

Flat Steel

Our steel products are sold both domestically and abroad as a main raw material for several different manufacturing industries, including the automotive, home appliance, packaging, construction and steel processing industries.

Our sales approach is to establish brand loyalty and achieve a reputation for quality products by developing relationships with our clients and focusing on their specific needs, providing tailor-made solutions for each of our clients.

Our commercial area is responsible for sales of all of our products. This area is divided into two major teams, one focused on international sales and the other on domestic sales. The domestic market oriented sales team is divided into seven market segments: Packaging, Distribution Network, Automotive Industry (Automakers and Auto Parts), Home Appliances, Original Equipment Manufacturer, or OEM, Construction and Pipes. The commercial area also has a team called "Special Sales" which is responsible for selling all the process residues, such as blast furnace slag, pitch and ammonia, which are widely used as inputs in chemical and cement industries.

The Distribution Network division is responsible for supplying large steel processors and distributors. Besides the independent distributors, CSN also has its own distributor, called Prada Distribuição. The Pipes division supplies oil and gas pipe manufacturers as well as some industries that produce small diameter pipe and light profiles. The Packaging unit acts in an integrated way with suppliers, representatives of the canning industry and distributors to respond to customer needs for finished-products. The Automotive unit is supplied by a specialized mill, CSN Porto Real, and also by a portion of the galvanized material produced at Presidente Vargas Steelworks, benefitting from a combined sales strategy.

Historically, our export sales were made primarily through international brokers. However, as part of our strategy to establish direct, longer-term relationships with end-users, we have decreased our reliance on such brokers. We have focused our international sales on more profitable markets in order to maximize revenues and shareholder returns.

All of our sales are on an order-by-order basis and have an average delivery time of 45 days. As a result, our production levels closely reflect our order log book status. We forecast sales trends in both the domestic and export markets based on the historical data available and the general economic outlook for the near future. We have our own data systems to remain informed of worldwide and Brazilian market developments. Further, our management believes that one of the keys to our success is maintaining a presence in the export market. Such presence gives us the flexibility to shift between domestic and export markets, thereby allowing us to maximize our profitability.

Unlike with other commodity products, there is no exchange trading of steel, or uniform pricing, as wide differences exist in terms of size, quality and specifications. In general, exports are priced based on international spot prices of steel at the time of sale in U.S. dollars or Euros, depending on the destination. Sales are normally paid up front, or within 14 or 28 days, and, in the case of exports, usually backed by a letter of credit and an insurance policy. Sales are made primarily on cost and freight terms.

Sales by Geographic Region

In 2016, we sold steel products to customers in Brazil as well as to customers in 35 other countries. The fluctuations in the portion of total sales assigned to domestic and international markets, which can be seen in the table below, reflect our ability to adjust sales in light of variations in the domestic and international economies, as well as steel demand and prices, both domestically and abroad.

The two main export markets for our products are Europe and North America, representing approximately 57% and 37%, respectively, of our export sales volume in 2016.

In North America, we utilize our subsidiary CSN LLC, which acts as a commercial channel for our products. CSN has historically shipped hot-rolled to CSN LLC which is then processed and transformed into more value-added products at CSN LLC's plant, such as cold-rolled coil and galvanized. Moreover, we are able to export cold-rolled coils which can be directly sold or processed by CSN LLC in order to manufacture galvanized products.

CSN – Sales of All Steel Products by Destination

(In thousands of tons and millions of R$)

	2016				**2015**				**2014**			
	Tons	**% of Total**	**Net Operating Revenues(2)**	**% of Total**	**Tons**	**% of Total**	**Net Operating Revenues(2)**	**% of Total**	**Tons**	**% of Total**	**Net Operating Revenues(2)**	**% of Total**
Brazil	2,784	57.31%	6,815	60.82%	2,968	59.50%	6,612	60.40%	3,718	72.00%	8,493	75.40%
Export	2,073	42.69%	4,391	39.18%	2,023	40.50%	4,332	39.60%	1,460	28.00%	2,764	24.60%
Total	**4,857**	**100%**	**11,205**	**100%**	**4,990**	**100%**	**10,944**	**100%**	**5,178**	**100%**	**11,257**	**100%**
Exports by Region												
Asia	18	1%	31	1%	9	0%	17	0%	48	3.20%	78	2.80%
North America(1)	759	36.62%	1,802	41.05%	802	39.70%	1,834	42.30%	289	19.70%	669	24.20%
Latin America	95	4.58%	260	5.91%	115	5.70%	376	8.70%	59	4.00%	161	5.80%
Europe	1,189	57.34%	2,269	51.69%	1,090	53.90%	2,087	48.20%	1,057	72.10%	1,840	66.60%
All Others	12	1%	29	1%	7	0%	18	0%	7	0.50%	16	0.60%

(1) Sales to Mexico are included in North America.
(2) Net operating revenues presented above differ from amounts in our IFRS consolidated financial statements because they do not include revenues from non-steel products (non-steel products include mainly by-products, iron ore, logistics services and cement).

Sales by Product

The following table sets forth our sales breakdown by product in Brazil for 2016, 2015 and 2014.

CSN Domestic Market Share	2016	2015	2014
Hot-Rolled Products	33%	36%	41%
Cold-Rolled Products	18%	19%	18%
Galvanized Products	30%	28%	28%
Tin Mill Products	13%	12%	11%
Long Steel	6%	5%	1%

Sales by Industry

We sell our steel products to manufacturers in several industries. The table below shows our domestic shipments breakdown by volume for the last three years among our market segments:

	2016	2015	2014
	(In percentages of total domestic volume shipped)		
Distribution Network	46%	45%	37%
Packaging	14%	13%	11%
Automotive	15%	11%	18%
Home Appliances	9%	9%	9%
OEM	4%	4%	4%
Construction	12%	18%	21%

We believe we have a particularly strong domestic and export position in the sale of tin mill products used for packaging in Latin America. Our customers for these products include some of the world's most important food processing companies, as well as many small and medium-sized entities. We also maintain a strong position in the sale of galvanized products for use in the automobile manufacturing, construction and home appliance industries in Brazil and abroad, supplied by CSN Porto Real and CSN Paraná. No single customer accounts for more than 10% of our net operating revenues.

For further information on steel sales, see "Item 5A. Operating Results—Steel Markets and Product Mix— Sales Volume and Net Operating Revenues by Steel Products and Markets" and "Item 5A. Operating Results— Results of Operations—Year 2016 Compared to Year 2015—Net Operating Revenues."

Seasonality

Steel demand is stronger in the second quarter of the year and weaker in the last quarter. Nevertheless, our production is continuous throughout the year.

Long Steel – SWT

Our long steel products are sold both in Germany (about 30%) and other countries, mainly in Europe (60%), for industrial, infrastructure, civil construction and engineering industries.

Our sales approach is to establish brand loyalty and to maintain our reputation of high quality products and excellent delivery performance by developing long term relationships with our clients. SWT focuses on meeting specific customer needs, developing solutions for both low temperature and high temperature resistant applications, as well as optimized section shapes for special applications.

Our commercial area is responsible for sales of all of our products worldwide. This area is divided into the direct sales team which is organized in 13 agencies located in Germany and in our core markets in Europe, the commercial back office department (order management from entry via tracking to the final delivery and invoicing), logistics contracting (truck, rail, vessel, maritime, inventory worldwide) and a rail logistics department.

SWT does not possess its own distribution network, instead cooperating with the big steel distributors and traders in Europe and other countries. All of our sales are on an order-by-order basis. The delivery time is related to the logistics chain and varies between 2 to 6 weeks depending on Incoterm and section type. As a result, our production levels closely reflect our order log book status. We forecast sales trends in both the European and export markets based on the historical data available from the last two years and the general economic outlook for the near future. We believe that our presence in the export market outside of Europe gives us more flexibility to optimize production and maximize our profitability.

Sections are not sold based on uniform pricing in Europe, as wide differences exist in terms of size, quality and specifications. In general, exports are priced based on international spot prices of steel at the time of sale in U.S. dollars or Euros, depending on the destination. Sales are normally paid within 30 days, and, in the case of exports, usually backed by a letter of credit and an insurance policy. All SWT businesses are 100% covered by EulerHermes risk insurance, a bank guarantee or a letter of credit. Sales are made primarily on cost and freight terms.

Long Steel – Volta Redonda

In 2013, CSN started the production of long steel in Volta Redonda. This plant has production capacity of 500kt/y when fully operational, providing the domestic market with products for civil and industrial construction.

Divided in wire rod, rebar CSN 50 and rebar CSN 25, the products were developed using high technology and in accordance with the highest quality and sustainability standards, with all tradition and reliability of our products.

The commercial team is comprised of its own sales force ready to meet all the needs of the market, not only the needs of small clients, but also the needs of large wholesales. Following the model already successfully deployed by us, in which we seek a diversified and pulverized service to our customers, we will be able to count on a real partner to boost our business.

In order to optimize the process, the product's outflow will be made in operational synergy with the flat steel units, using the same distribution centers, strategically located so as to deliver to all national territory.

This is another addition for the products from our portfolio, which is already comprised of cement, structural section products derived by flat steel, such as tile, tube, among others, so as to offer a portfolio that thoroughly covers the civil construction segment.

Iron Ore

Iron ore products are commercialized by our commercial team located in Brazil, Austria and Hong Kong. These three marketing units allow us to maintain close relations with our customers worldwide, understand the environment where they operate, monitor their requirements and provide all necessary assistance in a short period of time. Market intelligence analysis, planning and administration of sales are handled from Brazil by the staff in our São Paulo office, while our domestic sales team is located at Casa de Pedra mine, in the State of Minas Gerais.

We supply our iron ore to the steel industry, and our main destinations are Brazil, Europe and Asia. Prevailing and expected levels of demand for steel products directly affect demand for iron ore. Demand for steel products is correlated to many factors, such as GDP, global manufacturing production, urbanization, construction and infrastructure spending.

We believe our competitiveness has been improved by our customer service and market intelligence. It is paramount for us to have a clear understanding of our customers' businesses in order to address their needs, surpass their expectations and build long-term relationships. We have a customer-oriented marketing policy and specialized local

personnel in direct contact with our clients in order to help determine the mix that best suits each particular client.

	2016				2015							
	Tons	**% of total**	**Net Operating Revenues**	**% of total**	**Tons**	**% of total**	**Net Operating Revenues**	**% of total**	**Tons**	**% of total**	**Net Opera Reven**	
Brazil	4,120	11%	542,027	12%	539	2%	175,223	6%	138	1%	306	
Export	32,863	89%	4,039,875	88%	23,322	98%	3,012,027	95%	25,107	100%	3,802	
Total	**36,983**	**100%**	**4,581,902**	**100%**	**23,861**	**100%**	**3,187,250**	**100%**	**25,245**	**100%**	**4,109**	
Exports to												
Asia	29,349	89%	3,519,713	87%	21,963	95%	2,836,505	95%	24,334	97%	3.674	
North America	-	-	-	-	-	-	-	-	-	-		
Europe	3,514	11%	434,378	11%	1,028	4%	132,792	4%	773	3%	127	
Latin America	-	-	-	-								
Others	-	-	85,784	2%								

(*) Iron ore sales volumes presented in this table take into consideration sales by CSN and by our subsidiaries and jointly controlled entities proportionally to our interest (Namisa 60% until November 2015 and 100% stake in CSN Mineração as of December 2015).

The first step to our entry into the international iron ore market was taken in February 2007, with the completion of the first phase of the expansion of our coal seaport terminal in Itaguaí, in the State of Rio de Janeiro, which enabled us to also handle and export iron ore and to load from our own facilities the first shipment of our iron ore products.

In 2016, our iron ore sales reached 37.0 million tons, 32.9 million tons to third parties and 4.1 million tons to CSN steel mills, an increase of 21%[1] compared to 2015. Total mining net revenue increased 44% in 2016, mainly due to higher volumes sold to third parties and volumes that used to be transferred and since December 2015 are sold to the Presidente Vargas plant. The share of mining segment revenue in CSN's total net revenue increased from 21% in 2015 to 27% in 2016.

In 2016, 89% of our iron ore export sales went to the Asian market, mainly China and 11% were sold in the European market. Of our total sales volume to third parties, 72% were sinter feed, 11% pellet feed, 13% lump ore and 4% concentrated.

As global iron ore markets are highly competitive, we focus on our flexibility, reliability and efficient manner of supplying iron ore to the world market.

Through our marketing offices, we have long-term relationships with most players in the steel industry in China, Japan, Taiwan, South Korea, Europe and Brazil.

Cement

We have a diverse client base of approximately 20,000 clients, including construction material stores, home centers, concrete producers, construction companies, mortar industries and cement artifact producers.

The focus of our sales strategy is on retail. In this segment, we have a strong presence in sales points, where we reinforce the quality of the product to final customers. The retail segment operates with a low level of inventory, and a significant percentage of repurchase in the month, which highlights the competitive advantage of CSN’s distribution centers.

In 2016, despite the ongoing Brazilian economics crisis, we significantly increased our sales, reaching 2,814 thousand tons, marking a growth of 29% as compared to 2015. All our cement production is sold in the domestic market.

CSN – Cement Sales Figures

(In thousands of metric tons and millions of R$)

	2016		2015		2014	
	Tons	**Net Operating Revenues**	**Tons**	**Net Operating Revenues**	**Tons**	**Net Operating Revenues**
Brazil	2,814	491	2,182	432	2,185	440

1 The comparison considers a total volume of 30.7 million tons in 2014, which includes 5 million tons of volume transferred and sold to UPV.

Insurance

We and our subsidiaries maintain several types of insurance policies. These insurances are contracted in line with the risk management of our business and attempt to follow the market practices for similar activities. Coverage in such policies encompasses domestic and international (import and export) cargo transportation (by road, rail, sea or air), life insurance, personal accidents, health, auto insurance, D&O, general liability, CAR (construction and erection risks), boiler and machinery coverage, trade credit insurance, surety, named perils, ports and terminal liabilities. These policies may not be sufficient to cover all risks we are exposed to.

We also have an insurance policy covering the operational risks, material damages and loss of profits of our following branches and subsidiaries: Presidente Vargas Steelworks, CSN Mineração, Container Terminal Sepetiba TECON. This policy was negotiated with domestic and foreign insurers and reinsurers and is valid until March 31, 2019, with a limited indemnity of US$600 million (for an insured value of US$9.1 billion) with a deductible of US$385 million for material damages and 45 days to loss of profits. Under the terms of the policy, we remain responsible for the first tranche of US$385 million in losses (material damages and loss of profits).

Intellectual Property

We maintain a special unit for managing our intellectual property rights, which include trademarks, patents and industrial designs, ensuring adequate protection for us and the possibility of commercialization through technology transfer agreements. We also maintain cooperation agreements with universities and research institutes for the exchange of technical cooperation and developments related to new processes and/or products.

Competition in the Steel Industry

Both the worldwide and the Brazilian steel markets are intensely competitive. The primary competitive factors in these markets include quality, price, payment terms and customer service. Further, continuous advances in materials, sciences and resulting technologies have given rise to improvements in products such as plastics, aluminum, ceramics, glass and concrete, permitting them to serve as substitutes for steel for certain purposes.

Competition in the Brazilian Steel Industry

The primary competitive factors in the domestic market include quality, price, payment terms and customer service.

The following table sets forth the production of crude steel by Brazilian companies for the years indicated:

	2016	**2015**	**2014**
	Production *(In million tons)*	**Production** *(In million tons)*	**Production** *(In million tons)*
Gerdau[(2)]	6.8	7.0	7.4
Usiminas	3.1	5.0	6.0
ArcelorMittal Tubarão	7.0	6.8	5.3
CSN	3.1	4.2	4.4

ArcelorMittal Aços Longos	3.1	3.1	3.2
CSA	4.2	4.2	4.1
Others	3.9	1.9	3,4
Total	**31.2**	**32.2**	**33.8**

Source: IABr

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Competitive Position — Global

During 2016, Brazil maintained its place as the largest producer of crude steel in Latin America, with a production output of 30.2 million tons and a 1.8% share of total world production, according to data from the World Steel Association, or WSA. In 2016, Brazil dropped one position in the global ranking, becoming the ninth largest steel producer globally, accounting for more than half of total production in Latin America, approximately one third more than Mexico's or 38% of the U.S.' steel production, according to data from the WSA. According to IABr, Brazilian exports in 2015 amounted to 13.4 million tons of finished and semi-finished steel products, a decrease of 2% as compared to 2015.

We compete on a global basis with the world's leading steel manufacturers. We have positioned ourselves in the world market with a product mix characterized by high margin and strong demand, such as tin plate and galvanized products. We have relatively low-cost and sufficient availability of labor and energy, and own high-grade iron ore reserves. These global market advantages are partially offset by costs of transporting steel throughout the world, usually by ship. Shipping costs, while helping to protect our domestic market, put pressure on our export price. To maintain our position in the world steel market in light of the highly competitive international environment with respect to price, our product quality and customer service must be maintained at a high level. See "Item 4B. Business Overview—Government Regulation and Other Legal Matters—Proceedings Related to Protectionist Measures" for a description of protectionist measures being taken by steel-importing countries that could negatively impact our competitive position.

Competitive Advantages of the Brazilian Steel Industry

Brazil's principal competitive advantages are its abundant supply of low-cost, high-grade iron ore and energy resources. Brazil also benefits from a vast internal market with a large growth potential, a privatized industry making investments in plant and equipment and deep water ports allowing the operation of large ships, which facilitates access to export markets.

Brazilian domestic steel prices have historically been higher than its export prices. However, in 2010 and 2011, lower demand in mature markets, the appreciation of the *real* against the U.S. dollar, certain tax incentives, and imported steel products forced Brazilian producers to adjust prices closer to export price levels in order to maintain competitiveness. In 2012, with the depreciation of the *real* against the U.S. dollar and protective government measures which raised taxes on steel imports, export prices fell and domestic prices increased again.

Despite the increase in the overall steel sheet demand in 2013, prices in the USA, Germany and China decreased by 5.2% compared to 2012, while in 2014, the global average sheet prices decreased by 4.3% compared to 2013.

In 2015 and 2016, sales in the external market became more attractive, due to the depreciation of the *real* against the U.S. dollar, lower domestic demand and an increase of more than 50% in international prices. During 2016, imports of flat steel in Brazil decreased by 51% compared with the same period in 2015.

Government Regulation and Other Legal Matters

Environmental Regulation

We are subject to Brazilian federal, state and municipal environmental laws and regulations governing air emissions, waste water discharges, solid and hazardous waste handling and disposal, wildlife management, forest maintenance, dangerous products transportation and preservation of traditional communities. We are committed to controlling the substantial environmental impact caused by our steelmaking, mining, cement and logistics operations, in accordance with international standards and in compliance with environmental laws and regulations in Brazil. We believe currently we are largely in compliance with applicable environmental requirements. While the Brazilian government has authority to promulgate environmental regulations setting forth minimum standards of environmental protection, state and local governments have the power to enact more stringent environmental regulations.

We are subject to regulation and supervision by the Brazilian Ministry of Environment, the Environmental National Council, or CONAMA, which is the federal body responsible for enacting technical regulations and environmental protection standards, and by the Brazilian Institute of Environment and Renewable Natural Resources, or IBAMA, which is responsible for enforcing environmental laws at the federal level. The environmental regulations of the State of Rio de Janeiro, in which the Presidente Vargas Steelworks (UPV) is located, are enforced by the INEA. In the state of Minas Gerais, where our main mining operations are located, we are subject to regulations and supervision by the Environmental Policy Council, or COPAM, by the Regional Superintendent of Environment and Sustainable Development, or SUPRAM-CM, the Water Management Institute of Minas Gerais, or IGAM, the State Forestry Institute, or IEF, and the State Environmental Foundation, or FEAM, which are the competent bodies of the Secretary of State for the Environment and Sustainable Development of Minas Gerais, or SEMAD. Specific goals and standards are established in operating permits or environmental accords issued to each company or plant. These specific operational conditions complement the standards and regulations of general applicability and are required to be observed throughout the duration of the permit or accord. The terms of such operating permits are subject to change and are likely to become stricter. All of our facilities currently have or are in the process of obtaining/renewing their operating permits.

With the publication of the new Decree 47,137 in Minas Gerais in January 2017 and a joint determination between the environmental agencies to reduce bureaucracy and standardize the documents necessary for the processes of environmental regularization in the state, it is expected that the analysis periods for the release of Environmental Licenses in the state of Minas Gerais will be reduced.

Environmental Expenditures and Claims

Promoting responsible environmental and social management is part of our business. We prioritize processes and equipment that offer modern and reliable technologies on monitoring and control of environmental risks. All environmental controls are audited to comply with Sarbanes-Oxley (SOX) guidelines, helping to mitigate the environmental risks of our operations.

We have an Environmental Management System, or EMS, certified by ISO 14001 in Casa de Pedra Mine (Congonhas, MG), Presidente Vargas Steelworks (Volta Redonda, RJ), Porto Real (Porto Real, RJ), Bocaina Mine (Arcos, MG), CSN Paraná (Araucária, PR), TECON (Sepetiba, RJ) and Prada Distribution (Mogi das Cruzes, SP). The other sites are in process of implementing the EMS and have been following a corporate program for their progressive advancement following the guidelines of ISO 14001.

In addition, we have established (i) an internal committee for environmental management composed of professionals from different departments of CSN's units, whose goal is to regularly discuss any problems that may arise and to identify risks and aspects of the operations in which the group can act pro-actively in order to prevent possible environmental harm and (ii) a sustainability committee composed of external advisors, which provides guidelines for our strategic decisions. The environmental controls implemented since 2006 also contribute to mitigate environmental risks of CSN's operations.

To further understand our potential social and environmental risks, we use mapping criteria in accordance with the Global Reporting Initiative (G4), or GRI, for all of our operations. Resulting data and indicators in environmental, social and economic categories allow us to track our performance, structure and monitor action plans, in an effort to improve and enhance our results.

Since 2010, we have been conducting a survey of greenhouse gas emissions at our main sites following the guidelines of the GHG Protocol. Additionally, in response to a law enacted by the State of Rio de Janeiro in 2012 and in effect

since 2013, which requires steel making and cement industries to present action plans to reduce greenhouse gas emissions when renewing or applying for operational licenses, we are conducting such survey under the supervision of INEA. CSN intends to use this information in the development of a corporate carbon management program and related strategies to reduce emissions, as well as to identify current risks and opportunities for improvement.

Other strategies are being adopted by us in order to improve our environmental commitment. Since 2012, we participate in the *Climate Forum* organized by the Ethos Institute for Social Responsibility and in 2015 we joined the *Open Letter to Brazil on Climate Change* initiative, with the aim that the Brazilian government assume a leadership position during the 21st United Nations Framework Convention on Climate Change (UNFCCC) Conference, or COP-21. In 2015, we confirmed our commitment to sustainable development by signing the Sustainable Development Charter of Industry promoted by the World Steel Association, which is comprised of 75 leading steel companies committed to the seven principles of sustainability in the industry, and we also received the Gold Standard of the GHG Protocol, which confirms that we are in compliance with the standards imposed by the GHG Protocol and ensures that our GHG inventory was duly verified by a third party. We report the guidelines followed by our management with respect to climate change, supply chain and water resources to the Carbon Disclosure Project – CDP, and actively participates in the network NICOLE Brazil, a Brazilian leading organization that develops and promotes solutions for the management of contaminated areas. We also develop environmental education projects and promote understanding of the historical and natural patrimony, especially in the Arcos and Casa de Pedra plants. To reaffirm our commitment to the transformation of values and attitudes through new habits and knowledge, we started the Environmental Education Program (PEA), an initiative managed by the CSN Foundation that uses art as a dialogue between students, teachers and employees.

In 2015, CSN mapped all the emissions of its Hot Rolled Coil (HRC) production chain and was able to obtain the ABNT Carbon Footprint Certification. This certification positions our product in a more transparent way regarding the quality of the process and climate change risk and opportunity management. In the same year, CSN chose to integrate the group of Brazilian companies that, under the coordination of the Ellen McArthur Foundation, is expanding knowledge, and disseminating the practices of Circular Economy. In relation to our expenditures for environmental programs, and given the potential risk of water shortages, especially in the Southeast of the Brazil, we have continued with various actions aimed at increasing the efficiency of water usage in our production processes, with an emphasis on accomplishing a water reuse rate of, at least, 92% in the Presidente Vargas steel mill. In 2014, we hired a consultancy to prepare a water inventory, which provided us knowledge of how and to what extent our operations affect water resources, allowing us to develop plans and take actions to improve our efficiency and reduce potential pollution in local watersheds.

Since our privatization, we have invested heavily in environmental protection and remediation programs. We had environmental expenditures (capitalized and expensed) of R$369 million in 2016, of which R$102 million relate to capital expenditures (CAPEX) and R$267 million relate to operational expenditures (OPEX). Our total environmental expenditures were R$405 million in 2015 and R$361million in 2014. Our investments in environmental projects during 2016 were mainly related to: (i) operation, maintenance and retrofitting of environmental control equipment; (ii) development of environmental studies for permit applications; (iii) studies, monitoring, and remediation of environmental liabilities due to prior operations, especially before our privatization; and (iv) human resources (environmental team), Environmental Management System, sustainability projects and compliance programs.

Our environmental guidelines also comprehend monitoring of our tailing dams, which are used to contain the waste of the beneficiation process of iron ore and to contain sediments from the waste dumps and mining activities. On an annual basis, all our tailing dams are audited by independent audit companies. The most recent audit report confirmed and attested that all tailing dams are stable, in accordance with technical standards and relevant legislation. In addition to that, CSN´s tailing dams are built using the “downstream” method, which is considered the safest method of tailing dams’ construction.

TACs

In 2010, we signed with the Rio de Janeiro State Government a Term of Undertaking (*Termo de Ajustamento de Conduta*), or TAC ("TAC 2010"), that required new investments and studies to retrofit our environmental control equipment at the UPV plant. The TAC 2010 initially estimated the total amount to be disbursed in connection with the implementation of the required projects to be R$216 million. This initial estimate was updated to R$260 million as we obtained more accurate cost estimates for the completion of the projects. In 2013, we signed an amendment to the TAC 2010 regarding certain items pending conclusion and also included new obligations, as determined by the Rio de Janeiro State Environmental Agency (*Instituto Estadual do Ambiente*), or INEA, resulting in an additional investment of R$165 million, which has already been made by us. Given the deadline of the TAC 2010 in 2015, CSN, the Rio de Janeiro State and INEA came into a new agreement for complementary actions and signed a new TAC – TAC INEA No. 03/2016, in April 13, 2016 ("TAC 2016"). The TAC 2016 determines an additional investment of R$178 million for environmental controls at the UPV plant and the payment, by CSN, to the Rio de Janeiro state authorities of environmental fines in the amount of R$22 million, which will be allocated to environmental programs in the Volta Redonda region. As a consequence, the TAC 2016 concludes legal proceedings related to the TAC 2010. In April 2016, INEA executed one of the letters of guarantee in the amount of R$13 million and such amount has already been paid by CSN.

Other Environmental Proceedings and Liabilities

In July 2012, the Environmental Public Prosecutor of the State of Rio de Janeiro (*Ministério Público Estadual do Rio de Janeiro*) filed a judicial proceeding against us claiming that we must (i) remove all waste disposed in two areas used as an industrial waste disposal site in the city of Volta Redonda and (ii) relocate 750 residences located in the adjacent neighborhood Volta Grande IV Residential, also in the city of Volta Redonda. Later in 2012, we received notices for lawsuits brought by certain home owners at Volta Grande IV Residential claiming indemnification for alleged moral and material damages. Trial Courts in Rio de Janeiro have been adopting a split position as to whether the individual claims shall or not remain suspended until production of technical evidence on the Public Civil Action. Some cases remain suspended and others advanced to nomination of the judicial experts that will conduct the evidence production phase. For more information, please see "Item 8A. Consolidated Statements and Other Financial Information—Legal Proceedings—Other Legal Proceedings."

In 2015, the Federal Public Prosecutor of Rio de Janeiro (*Ministério Público Federal do Rio de Janeiro*) filed a public civil action against CSN to request an adjustment to emissions thresholds of the UPV plant. According to Resolução Conama 436, CSN is required to reduce emissions by December 2018. Currently, CSN is complying with state regulations.

In respect to other allegedly contaminated areas located in the city of Volta Redonda, State of Rio de Janeiro, the Federal and State Prosecutors have initiated lawsuits seeking remediation and indemnification in relation to the areas known as Marcia I, Marcia II, III and IV, Wandir I and II and Reciclam. These legal proceedings are in an initial phase and currently we are conducting environmental studies, which will determine the extent of the impacts arising from the contamination, and implementing measures in order to comply with the applicable laws. Once concluded, these environmental studies will be presented and attached to each respective legal proceeding. Therefore, at this moment, no amount has been determined in relation to any significant disbursement and/or investment to be made by us.

Our main environmental claims as of December 31, 2016, were associated with recovery services at former coal mines decommissioned in 1989 in the state of Santa Catarina, and recovery services due to previous operations in our UPV plant.

We record a provision for remediation costs and environmental lawsuits when a loss is probable and the amount can be reasonably estimated. This provision is included in our statements of income in "Other Operating (Expenses) Income." We do not include in our reserves environmental liabilities related to ERSA, as these are contractually supported by its former owner.

As of December 31, 2016, we had provisions for environmental liabilities in the total amount of R$ 273.5 million, which we believe are sufficient to cover all probable losses. Such amount compares to R$262.3 million as of December 31, 2015, and R$211.5 million as of December 31, 2014. The increase in our provisions for environmental liabilities in 2016 as compared to 2015 is mainly due to the critical review of the remediation strategy and environmental management for external landfill areas, especially the areas of (i) the Southern Region of Santa Catarina State (environmental recovery of a former coal mine) under agreements with the Public Prosecutor Office seeking the recovery of environmental liabilities caused by coal mining in the Southtern Region of Santa Catarina until the 1990s, and (ii) Estação Ecológica de Corumbá (management of a nature conservation area in the State of Minas Gerais), under our 2011 Conduct Adjustment Agreement (Termo de Ajustamento de Conduta - "TAC"), which we have observed and which are accompanied by the Public Prosecutor Office and by the competent environmental agency with the expectation of the discharge of the obligations in 2017.

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The changes in the provision for environmental liabilities on our financial statements are as follows:

	Amounts (in millions of R$)
December 31, 2014	**211.5**
Term of Undertaking (TAC)(1)	72.8
Decommissioned Coal Mines (Santa Catarina)	(12.9)
Landfills and other(2)	(9.1)
December 31, 2015	**262.3**
Term of Undertaking (TAC)(1)	6.3
Decommissioned Coal Mines (Santa Catarina)	0.4
Landfills and other(2)	4.4
December 31, 2016	**273.4**

(1) Refers to environmental compensation agreed in the TAC but not related to investments in equipment.

(2) Refers to an estimate calculation of recovery costs related to landfills remediation obligations.

Brazil – Mining Regulation

Under the Brazilian Constitution, all mineral resources in Brazil belong to the federal government. The Brazilian Constitution and Mineral Code impose various regulatory restrictions on mining companies relating to, among other things:

- the manner in which mineral deposits must be exploited;
- the health and safety of workers and the safety of residential areas located near mining operations;
- the protection and restoration of the environment;
- the prevention of pollution; and
- the support of local communities where mines are located.

Mining companies in Brazil can only prospect and mine pursuant to prospecting authorizations or mining concessions granted by the National Department of Mineral Production (*Departamento Nacional de Produção Mineral*), or DNPM, an agency under the Ministry of Mines and Energy of the Brazilian Government. DNPM grants prospecting authorizations to a requesting party for an initial period of one to three years. These authorizations are renewable at DNPM's discretion for another period of one to three years, provided that the requesting party is able to show that the renewal is necessary for proper conclusion of prospecting activities. On-site prospecting activities must start within 60 days of official publication of the issuance of a prospecting authorization. Upon completion of prospecting activities and geological exploration at the site, the holder of the prospecting authorization must submit a final report to DNPM. If the geological exploration reveals the existence of a mineral deposit that is technically and economically exploitable, the grantee has one year (which DNPM may extend) from approval of the report by DNPM to apply for a mining concession by submitting an economic exploitation plan or to transfer its right to apply for a mining concession to an unrelated party. When a mining concession is granted, the holder of such mining concession must begin on-site mining activities within six months. DNPM grants mining concessions for an indeterminate period of

time lasting until the exhaustion of the mineral deposit. After extraction, the mineral products that are specified in the concession belong to the holder of the concession. With the prior approval of DNPM, the holder of a mining concession can transfer it to an unrelated party that is qualified to own concessions. Under certain circumstances, mining concessions may be challenged by unrelated parties.

Mining Concessions

Our iron ore mining activities at Casa de Pedra mine are performed based on Manifesto de Mina, which gives us full ownership over the iron ore deposits existing within our property limits. Our iron ore mining activities at Engenho and Fernandinho mines are based on a concession by the Ministry of Mines and Energy, which grants us the right to exploit mineral resources from the mine for an indeterminate period of time lasting until the exhaustion of the mineral deposit. Our limestone and dolomite mining activities at the Bocaina mine and our tin mining activities at Ariquemes (ERSA mine) are based on concessions under similar conditions. See “Item 4D. Property, Plant and Equipment” for further information.

On October 30, 2015, and upon prior approval of DNPM, the Manifesto de Mina for Casa de Pedra was transferred by CSN to CSN Mineração (formerly named Congonhas Minérios S.A.), which was also granted the Engenho mining concession from Nacional Minérios S.A. ("Namisa") by the end of the year of 2015. In the same occasion, Fernandinho mining concession and the mining rights of Cayman and Pedras Pretas were transferred by Namisa to Minérios Nacional. For further information, see "Item 4D. Property, Plant and Equipment."

Mineral Rights and Ownership

Our mineral rights for Casa de Pedra mine include the mining concession, a beneficiation plant, roads, a loading yard and a railway branch, and are duly registered with the DNPM. We have also been granted by DNPM easements in 19 mine areas located in the surrounding region, which are not currently part of Casa de Pedra mine. These areas are needed to expand our operations and as operating support areas.

In addition, we have obtained and are in compliance with all environmental licenses and authorizations for our operations and projects at Casa de Pedra mine.

The exploitation in Casa de Pedra mine is subject to mining lease restrictions, which were duly addressed in our iron ore reserve calculations. Quality requirements (chemical and physical) are the key "modifying factors" in the definition of ore reserves at Casa de Pedra and were properly accounted for by our mine planning department.

The Brazilian government charges us a royalty known as the Financial Compensation for Exploiting Mineral Resources (*Compensação Financeira pela Exploração de Recursos Minerais*), or CFEM, on the revenues from the sale of minerals we extract, net of taxes, insurance costs and costs of transportation. DNPM is responsible for enacting regulations on CFEM and auditing the mining companies to ensure the proper payment of CFEM. The current CFEM rates are progressive and vary according to the mineral substance exploited.

The Mineral Code and ancillary mining laws and regulations also impose other financial obligations. For example, mining companies must compensate landowners for the damages and loss of income caused by the use and occupation of the land (either for exploitation or exploration) and must also share with the landowners the results of the exploration (in a rate of 50% of the CFEM). Mining companies must also enter into agreements with the Brazilian government to use public lands and eventually compensate the government for damages caused to such public lands. A substantial majority of our mines and mining concessions are on lands owned by us or on public lands for which we hold mining concessions.

The Brazilian Congress is reviewing a bill that proposes significant changes in the Mineral Code, including more stringent rules for dams and a potential increase of the CFEM rates, which may have a material impact on our mining operations.

Antitrust Regulation

We are subject to various laws in Brazil which seek to maintain a competitive commercial environment. The competition law and practice in Brazil are governed by Law No. 12,529, dated November 30, 2011, which came into force on May 30, 2012, and provided for significant changes in the Brazilian Antitrust System's structure, including the creation of the new Conselho Administrativo de Defesa Econômica (CADE). Referred law introduced a mandatory pre-merger notification system, as opposed to the post-merger review system previously in force. The new CADE is now formed by an Administrative Tribunal of Economic Defense *(Tribunal Administrativo de Defesa Econômica)*, a General-Superintendence *(Superintendência-Geral)* and a Department of Economic Studies *(Departamento de Estudos Econômicos)*.

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CADE is responsible for the control of anti-competitive practices in Brazil. If CADE determines that certain companies have acted collusively to raise prices, it has the authority to impose fines on the offending companies, prohibit them from receiving loans from Brazilian government sources and bar them from bidding on public projects. In addition, CADE has the authority to prevent or impose certain conditions to mergers and acquisitions and/or to impose certain restrictions or conditions on M&A transactions (for instance, require a company to divest assets or take other anti-dumping measures) should it determine that the industry in which it operates is insufficiently competitive or that the transaction creates a market concentration which can affect competition.

For further antitrust-related information, see "Item 8A. Consolidated Statements and Other Financial Information—Legal Proceedings."

Regulation of Other Activities

In addition to mining, environmental and antitrust regulation, we are subject to comprehensive regulatory regimes for certain of our other activities, including railway transportation, electricity generation and ports.

Since January 1998, we have held the exclusive rights to operate the Cargo Railway Transport at the Northeast Railway System. In 2005, we executed a letter of intention to carry out a Northeastern Railway System enlargement and improvement project, or Project Nova Transnordestina, jointly with the Federal Government as grantor. In 2013 and 2014, we executed the respective agreements to start Project Nova Transnordestina. In order to direct the private-public funding agreed upon with the Government bodies exclusively to Project Nova Transnordestina, we divided the Northeastern Railway System management into two sub-railway systems:

(i) Northeast Railway System I (operational stretch), which encompasses the stretches between the cities of São Luís – Mucuripe, Arrojado – Recife, Itabaiana – Cabedelo, Paula Cavalcante – Macau and Propiá – Jorge Lins, and is operated by our subsidiary Ferrovia Transnordestina Logística S.A, or FTL, and;

(ii) Northeast Railway System II (under construction) which encompasses the stretches between Missão Velha – Salgueiro, Salgueiro – Trindade, Trindade – Eliseu Martins, Salgueiro – Porto de Suape and Missão Velha – Porto de Pecém, and is operated by our subsidiary Transnordestina Logística S.A, or TLSA.

Our railway business is subject to regulation and supervision by the Brazilian Ministry of Transportation and ANTT, and operates pursuant to Concession Contracts granted by the federal government, which impose certain limitations and obligations.

Our port business is subject to regulation and supervision by the Brazilian Secretariat of Ports (*Secretaria dos Portos*, or SEP), the Ministry of Transportation, Ports and Civil Aviation (Ministério do Transportes, Portos e Aviação Civil) and the National Water Transportation Agency (*Agência Nacional de Transportes Aquaviários*, or ANTAQ). As of December 31, 2016, we owned a 99.99% participation in TECON, which has a concession to operate the container terminal at Itaguaí Port for a 25-year term until 2026, renewable for an additional 25 years. The concession to operate TECAR, a solid bulks terminal at Itaguaí Port, expires in 2047 and is explored since December 31, 2015, by our controlled company CSN Mineração (formerly named Congonhas Minérios S.A.) due to the transaction entered into with the Asian Consortium. For more information regarding the transaction with the Asian Consortium, please see "Item 5A. Operating Results."

Our electricity generation business is subject to regulation and supervision by the Brazilian Ministry of Mines and Energy, the National Agency for Electric Energy (*Agência Nacional de Energia Elétrica*), or ANEEL, and the National Electric System Operator (*Operador Nacional do Sistema Elétrico*, or ONS). As of December 31, 2015, we owned the following energy related assets: (i) a 235.2 MW thermoelectric co-generation power plant at our Presidente Vargas Steelworks, (ii) a 48.75% participation in ITASA, which owns and operates 60.5% of the Itá hydroelectric facility on the Uruguay river in Southern Brazil under a renewable 30-year concession until 2030, and (iii) a 17.9% participation in the consortium that built and has the right to operate the Igarapava hydroelectric facility in Southeast Brazil under a renewable 30-year concession until 2028.

For further information on our logistics and energy segments, see “Item 4B. Business Overview.”

Proceedings Related to Protectionist Measures

Over the past several years, exports of steel products from various countries and companies, including Brazil and us, have been the subject of anti-dumping, countervailing duty and other trade related investigations from importing countries. These investigations resulted in duties that limit our access to certain markets.

In Brazil, we are subject to regulation and supervision by the Ministry of Development, Industry and Foreign Trade, the Secretary of Foreign Trade (*Secretaria de Comércio Exterior*), or SECEX, and the Commercial Defense Department (*Departamento de Defesa Comercial*), or DECOM. Worldwide, our exports are subject to the protectionist measures summarized below.

United States

Anti-dumping (AD) and Countervailing Duties (CVD). In the U.S., we are subject to regulation and supervision by the U.S. Department of Commerce, or DOC, the International Trade Commission, or ITC, the International Trade Administration, or ITA, and the Import Administration, or IA.

On July 28, 2015, AK Steel Corporation, ArcelorMittal USA LLC, Nucor Corporation, Steel Dynamics, Inc. and United States Steel Corporation filed antidumping and countervailing duty ("AD/CVD") petitions with respect to certain cold-rolled flat steel products from Brazil, China, India, Japan, Korea, Russia, and the United Kingdom at the ITC and the DOC. On August 24, 2015, the DOC initiated both AD/CVD investigations with respect to cold-rolled steel from Brazil. On September 10, 2015, the ITC announced affirmative preliminary injury determinations with respect to cold-rolled imports from Brazil.

On August 11, 2015, AK Steel Corporation, ArcelorMittal USA LLC, Nucor Corporation, SSAB Enterprises, LLC, Steel Dynamics, Inc., and United States Steel Corporation filed AD/CVD petitions with respect to certain hot-rolled steel products from Australia, Brazil, Japan, the Republic of Korea, the Netherlands, Turkey, and the United Kingdom. On September 9, 2015, the DOC initiated both AD/CVD investigations with respect to hot-rolled steel from Brazil. On September 24, 2015, the ITC announced affirmative preliminary injury determinations with respect to hot-rolled steel imports from Brazil.

In December 2015 and January 2016, the DOC reached preliminary determinations on the CVD investigation, these determinations imposed a rate of 7.42% for the exports of both hot-rolled and cold products. In February 2016, the DOC issued its preliminary determination on the anti-dumping investigation of cold-rolled products, which was reviewed in April 2016, in which the rate imposed on exports to the US was 20.84% as of March 7, 2016. In March 2016, the DOC issued the preliminary determination on the AD investigation of hot-rolled products, in which the rate imposed was 33.91%. The final determination for AD and CVD of cold rolled was issued in July 2016, imposing a rate of 11.31% for CVD and a rate of 19.56% for AD with a cash deposit of 15.49%. The final determination for hot rolled products was issued in August 2016 and the rates imposed were 11.31% for CVD and 33.14% for AD with a cash deposit of 29.07%.

European Union

Anti-dumping (AD). In the European Union, we are subject to regulation and supervision by the European Commission, or the Commission.

On July 7, 2016, the European Commission initiated an anti-dumping investigation concerning imports of certain hot-rolled flat steel products originating from Brazil, Iran, Russia, Serbia and Ukraine.

On July 29, 2016, the Commission decided to limit its investigation to a reasonable number of exporting producers by using a sample in accordance with Article 17(1) of Regulation (EU) 2016/1036 of the European Parliament. The criteria used to select the sample was the volume of the product concerned exported to the European Union during the investigation period. As a result, three companies, Arcelor Mittal, CSN and Usiminas, responsible for 97% of total exports to the EU, were chosen to represent Brazil in the investigation.

In January 2017, the Commission issued a regulation establishing that imports of hot–rolled flat steel products originated from Brazil and Russia are subject to registration with customs. The consequence of the registration is that all imports cleared after January 7, 2017, will be exposed to the risk of being subject to retroactive collection of duties against Brazil at the end of the investigation.

The preliminary determination was issued in April 2017 by the European Commission, which opted not to impose provisional duties on the imports of Hot Rolled products from Brazil into the European Union. In October 2017, the Commission imposed a definitive anti-dumping duty of 53.4 euros/ton on imports from us. The duties imposed for other Brazilian companies were 54.5 euros/ton for Arcelor Mittal, 55.8 euros/ton for Gerdau and 63 euros/ton for Usiminas.

Canada

Anti-dumping. In Canada, we are subject to regulation and supervision by the Canadian International Trade Tribunal, or CITT, the Canada Border Services Agency, or CBSA, and the Anti-dumping and Countervailing Directorate.

In January 2001, the Canadian government initiated an anti-dumping investigation process involving hot-rolled sheets and coils exported from Brazil. The investigation was concluded in August 2001, with the imposition by Canada of an anti-dumping order. Despite the limitations imposed by Canada, we are not currently affected by this anti-dumping order since we do not export hot rolled coil to Canada.

Overview of Steel Industry

World Steel Industry

The worldwide steel industry comprises hundreds of steelmaking facilities divided into two major categories, integrated steelworks and non-integrated steelworks, depending on the method used for producing steel. Integrated plants, which accounted for approximately 2/3 of worldwide crude steel production in 2013, typically produce steel by smelting in blast furnaces the iron oxide found in ore and refining the iron into steel, mainly through the use of basic oxygen furnaces or, more rarely, in electric arc furnaces. Non-integrated plants (sometimes referred to as mini-mills), which accounted for approximately 1/3 of worldwide crude steel production in 2013, produce steel by melting scrap metal, occasionally complemented with other metallic materials, such as direct reduction iron or hot-briquette iron, in electric arc furnaces. Industry experts expect that a lack of a reliable and continuous supply of quality scrap metal, as well as the high cost of electricity, may restrict the growth of mini- mills.

Steel continues to be the material of choice in the automotive, construction, machinery and other industries. Notwithstanding potential threats from substitute materials such as plastics, aluminum, glass and ceramics, especially for the automotive industry, steel continues to demonstrate its economic advantage. From 2006 through 2015, total global crude steel production averaged approximately 1.5 billion tons per year. According to the WSA, in 2016, production reached 1.6 billion tons, which represents an increase of 0.8% as compared to 2015.

China’s crude steel production in 2016 reached 808 million tons, an increase of 1.2% as compared to 2015. Production volume in China has almost doubled in the last ten years, from 421 million tons in 2006. China’s share of world steel production increased from 49.4% in 2015 to 49.6% in 2016. In 2016, Asian countries increased their production by 1.6%, reaching 1.125 billion tons, according to WSA.

All major producing countries, except for India, decreased their production levels in 2016. According to the World Steel Associatiom, in 2016 the global crude steel production increased, slightly and, considering that 2014 was a record production year, the production levels remained in line with 2015 figures.

Brazilian Steel Industry

Since the 1940s, steel has been of vital importance to the Brazilian economy. During the 1970s, strong government investments were made to provide Brazil with a steel industry able to support the country's industrialization boom. After a decade of little to no investment in the sector in the 1980s, the government selected the steel sector as the first for privatization commencing in 1991, resulting in a more efficient group of companies operating today.

A Privatized Industry

During almost 50 years of state control, the Brazilian flat steel sector was coordinated on a national basis under the auspices of Siderbrás, the national steel monopoly. The state had far less involvement in the non-flat steel sector, which has traditionally been made up of smaller private sector companies. The larger integrated flat steel producers operated as semi-autonomous companies under the control of Siderbrás and were each individually privatized between 1991 and 1993. We believe that the privatization of the steel sector in Brazil has resulted in improved financial performance, as a result of increased efficiencies, higher levels of productivity, lower operating costs, a decline in the labor force and an increase in investment.

Domestic Demand

Historically, the Brazilian steel industry has been affected by substantial fluctuations in domestic demand for steel. Although national per capita consumption varies with GDP, fluctuations in steel consumption tend to be more pronounced than changes in economic activity. Crude steel consumption per capita in Brazil has decreased from 147 kilograms in 2010 to 114 kilograms in 2015. It is considered low when compared to the levels of some developed countries, such as the United States and Germany.

From 2006 to 2016, Brazilian GDP grew on average 2.2%. In 2008 and 2009, overall global economic activity slowed significantly and domestic apparent steel consumption amounted to 24.0 million tons and 19.1 million tons, respectively. In 2010, with the recovery of the global economy, domestic demand rose by 38.8% to 26.6 million tons. On the other hand, in 2011, domestic steel demand decreased 1.2% to 26.2 million tons, mainly due to high levels of inventory held by distributors and increased indirect imports. In 2012, the slowdown of the Brazilian economy led to another decrease in steel consumption of 17.6% to 21.6 million tons.

The Brazilian flat steel sector is shifting production to the higher value-added consumer durable sector. This sector is highly dependent on domestic consumer confidence, which, in turn, is affected by economic policies and certain expectations of the current government administration. Over the past years, automobile manufacturers made significant investments in Brazil. In 2009 and 2010, vehicle production recovered from the 2008 financial crisis in response to government incentives such as tax cuts. In 2012, the Brazilian market reached a record 3.8 million vehicles sold, reflecting a specific government measure, which reduced the industrialized products tax. On the other hand, exports decreased by 20.1%. In 2013, with the postponement of the reduction in industrialized products tax, the Brazilian market maintained the level of vehicles sales, but had an increase of 13.5% in exports, according to the Auto Manufacturers' Association, or ANFAVEA, data. In 2014, the decrease in the family consumption and the employment level, allied with the end of government incentives resulted in a reduction of 7.1% in vehicles sales, respectively, according to the ANFAVEA data. In 2015 and 2016, vehicles sales decreased 26.6% and 20.2%, respectively, due to the economic recession, a large number of vehicles in stock and by the return of the industrialized products tax.

Market Participants

According to IABr (Instituto Aço Brasil), the Brazilian steel industry is composed of 29 mills managed by 11 corporate groups, with an installed annual capacity of approximately 48.9 million tons, producing a full range of flat, long, carbon, stainless and specialty steel.

Capacity Utilization

The installed capacity in 2016 was estimated at 50.3 million tons, in 2015 was 47.4 million tons, the local steel industry operated at approximately 62% utilization in 2016, a reduction of 5% compared to the level recorded in 2015.

Exports/Imports

Brazil has been playing an important role in the export market, primarily as an exporter of semi-finished products. The Brazilian steel industry has taken several steps towards expanding its capacity to produce value-added products. In 2012, exports of semi-finished products were 6.6 million tons, a 7.4% decrease in relation to the previous year, representing 68% of total exports. In 2013, the exports of semi-finished products reached 5.3 million tons, representing 65% of total exports. In 2014, Brazilian steel exports totaled 9.8 million tons, an increase of 21% compared to 2013 and steel imports increased by 7%, compared to 2013, according to IABr. In 2015, the exports of semi-finished and finished steel products reached 13.7 million tons, an increase of 40% compared to 2014.

In 2016, Brazilian steel exports totaled 13.4 million tons and accounted for US$5.6 billion in export earnings for Brazil. Over the last 20 years, the Brazilian steel industry has been characterized by a structural need to export, which is demonstrated by the industry's supply demand curve. The Brazilian steel industry has experienced periods of overcapacity, cyclicality and intense competition during the past several years. Demand for finished steel products, as measured by domestic apparent consumption, has consistently fallen short of total supply (defined as total production plus imports). In 2015, steel imports were 3.2 million tons, or 15% of apparent domestic consumption, in line with the figures from 2014. In 2015, steel imports decreased by 19% as compared to 2014. In 2016, steel imports decreased by 2.1% as compared to 2015, according to IABr.

For information on the production by the largest Brazilian steel companies, see "Item 4B. Business Overview—Competition—Competition in the Brazilian Steel Industry."

4C. Organizational Structure

We conduct our business directly and through subsidiaries. For more information on our organizational structure, see Note 2(b) to our consolidated financial statements included in "Item 18. Financial Statements."

4D. Property, Plant and Equipment

Our principal executive offices are located in the city of São Paulo, the State of São Paulo at Avenida Brigadeiro Faria Lima, 3,400, 20th, 19th and 15th - part floors (telephone number 55-11-3049-7100), and our main production operations are located in the city of Volta Redonda, in the State of Rio de Janeiro, located approximately 120 km from the city of Rio de Janeiro. Presidente Vargas Steelworks, our steel mill, is an integrated facility covering approximately 4.0 square km and located in the city of Volta Redonda in the State of Rio de Janeiro. Our iron ore, limestone and dolomite mines are located in the State of Minas Gerais, which borders the State of Rio de Janeiro to the north. Each of these mines lies within 500 km of, and is connected by rail and paved road to, the city of Volta Redonda.

The table below sets forth certain material information regarding our property as of December 31, 2016. For more information, see Note 11 to our consolidated financial statements included in "Item 18. Financial Statements."

Facility	Location	Size	Use	Productive Capacity	Title	Encumbrances
Presidente Vargas Steelworks (1)	Volta Redonda, State of Rio de Janeiro	4.0 square km	steel mill	5.6 million tons per year	owned	none
CSN Cimentos (2)	Volta Redonda, State of Rio de Janeiro	0.08 square km	cement plant	2.4 million tons per year	owned	none
CSN Porto Real	Porto Real, State of Rio de Janeiro	0.27 square km	galvanized steel producer	350,000 tons per year	owned	none
CSN Paraná	Araucária, State of Paraná	0.98 square km	galvanized and pre-painted products	100,000 tons of pre- painted product and 220,000 tons of pickled hot-rolled coils	owned	none

Prada	São Paulo, State of São Paulo and Uberlândia, State of Minas Gerais	SP – 0.14 square km; MG – 0.02 square km;	steel can manufacturer	1 billion cans per year	owned	none
CSN, LLC	Terre Haute, Indiana, USA	0.78 square km	cold-rolled and galvanized products	800,000 tons of cold-rolled products and 315,000 tons per year of galvanized products	owned	none
Lusosider	Seixal, Portugal	0.39 square km	hot-dip galvanized, cold-rolled and tin products	240,000 tons of galvanized products and 50,000 tons of cold-rolled products per year	owned	none
Prada	Mogi das Cruzes, State of São Paulo	0.20 square km	distributor	730,000 tons per year	owned	none

CSN MineraÃ§Ã£o	**Congonhas, State of Minas Gerais**	**78.41 square km**	**iron ore mine**	**32 mtpy(4) of iron ore**	**Owned / concession**	**none**
Arcos Plant and Bocaina mine	Arcos, State of Minas Gerais	5.35 square km	limestone and dolomite mines	2.3 mtpy of cement	concession	none
ERSA mine	Ariquemes, State of RondÃ´nia	0.015 square km	tin mine	3,200 tons	concession	none
Thermoelectric co-generation power pl**ant**	Volta Redonda, State of Rio de Janeiro	0.04 square km	power plant	235.2 MW	owned	none
ItÃ¡(8)	Uruguay River - Southern Brazil	9.87 square km	power plant	1,450 MW	concession	none
Igarapava(9)	State of Minas Gerais	5.19 square km	power plant	210 MW	concession	none
Southeastern (MRS)	Southern and Southeastern regions of Brazil	1,674 km of tracks	railway	--	concession	none
FTL	Northern and northeastern regions of Brazil	4,238 km tracks of railway 1	railway	--	concession	none
TLSA	Northern and northeastern regions of Brazil	-600 km tracks of railway 2	railway	--	concession	none
TECAR at ItaguaÃ– Port	ItaguaÃ–, State of Rio de Janeiro	0.69 square km	Iron ore shipment	45 mtpy	concession	none
Container terminal - **TECON at ItaguaÃ– port**	ItaguaÃ–, State of Rio de Janeiro	0.44 square km	containers	660 K TEUs py	concession	none
Property	State of Rio de Janeiro	31.02 square km	Real Estate / Land	--	owned	pledge(10)/Collateral
Property	State of Santa Catarina	6.22 square km	Real Estate / Land	--	owned	pledge(10)/Collateral
Property	State of Minas Gerais	13.70 square km	Real Estate / Land	--	owned	none
Property	State of Piaui	861.69 square km	Land		owned	none
Steel plant with rolling mill (SWT)	Europa / Germany / Unterwellenborn	0.898 square km	production of sections	1 million tons per year	owned	none

(1) Includes the Volta Redonda Long Steel Plant, which has an expected production capacity (when fully operational) of 500,000 tons per year.

(2) Our CSN Cimentos cement plant is included in the same area as our Presidente Vargas Steelworks.

(3) Property owned by our controlled company CSN MineraÃ§Ã£o (87.52%).

(4) Information on installed capacity of products. For information on mineral reserves at our Casa de Pedra mine, see â€œâ€”Reserves at Casa de Pedra Mineâ€ and table under â€œâ€”Casa de Pedra Mineâ€ below.

(5) Based on the Manifesto de Mina. See â€œItem 4B. Business Overviewâ€”Government Regulation and Other Legal Mattersâ€”Mining Concessions.â€

(6) Information on equipment fleet installed annual ROM capacity.

(7) Property owned by our controlled company MinÃ©rios Nacional (100%).

(8) Property 29.5% owned by us.

(9) Property 17.9% owned by us.

(10) Pledged pursuant to various legal proceedings, mainly related to tax claims.

For information on environmental issues with respect to some of the facilities described above, see â€œItem 4B. Business Overviewâ€”Government Regulation and Other Legal Mattersâ€”Environmental Expenditures and Claims.â€ In addition, for information on our plans to construct, expand and improve our facilities, see â€œItem 4. Information on the Companyâ€”D. Property, Plant and Equipmentâ€”Planned Investmentsâ€ and Note 10 to our financial statements included elsewhere in this Form 20-F.

The map above shows the locations of the Presidente Vargas Steelworks, CSN Paraná, Prada, CSN Porto Real (formerly known as GalvaSud), Metalic, Lusosider, ERSA, CSN LLC and SWT facilities, our iron ore, limestone and dolomite mines, the power generating facilities in which we have an ownership interest, and the main port used by us to export steel products and import coal and coke, as well as the main railway connections.

Acquisitions and Dispositions

Usiminas

On December 31, 2016, we owned, directly and indirectly, 20.86% of the preferred shares and 15.19% of the common shares of Usinas Siderúrgicas de Minas Gerais S.A. ("Usiminas"), resulting from various acquisitions in the market since mid-2010. For more information on the value of these assets, please see "Item 5A. Operating Results—Critical Accounting Estimates—Impairment of Long-Lived Assets, Intangible Assets, Goodwill and Financial Assets." We are assessing strategic alternatives in relation to our investment in Usiminas. For more information on the antitrust matters regarding our investment in Usiminas see "Item 8. Financial Information—A. Consolidated Statements and Other Financial Information Selected Financial Data—Legal Proceedings—Antitrust."

As of March 2016, Usiminas' Board of Directors approved a capital increase amounting to R$64,882 thousand, through the issuance of 50,689,310 preferred shares. Consequently, on April 19, 2016, CSN exercised its right of subscription, paying R$11,603 thousand for 9,064,856 preferred shares.

In April 2016, the Usiminas Shareholders' Meeting approved an increase in its share capital amounting to R$1,000,000 through the issuance of 200,000,000 new common shares, with a deadline for exercising the preferential right to acquire the said shares up to 23 May 2016. On May 20, 2016, CSN exercised its right of subscription, paying R$178,832 thousand for 35,766,351 common shares.

On April 28, 2016, CSN elected, for two years' term of office, two fixed and two alternate members on the Usiminas' Board of Directors and, for one year's term, one fixed and one alternate member on the Usiminas' Fiscal Committee. The election was made possible through the flexibility and exceptional decision from CADE (Administrative Council for Economic Defense) in relation to the TCD (Performance Commitment Agreement) signed by CSN and CADE in 2014. The mentioned decision permitted CSN to elect pre-approved members to the Board of Directors and Fiscal Committee of Usiminas, and was rendered by the majority of CADE's members at its April 27, 2016, session. Even though CADE's decision is currently subject to litigation, there is no judicial order in place overturning or otherwise suspending its effects.

Namisa / CSN Mineração

By the end of 2015, we restructured our iron ore business by means of the combination into CSN Mineração, a CSN subsidiary, of the iron ore businesses and related logistics assets of CSN and Nacional Minérios S.A. ("Namisa"), resulting in a fully integrated operation. As part of the restructuring, Nacional Minérios S.A was merged into CSN Mineração.

Previously, in 2008, a consortium of Asian companies composed of Itochu Corporation, JFE Steel Corporation, Kobe Steel, Ltd, Nisshin Steel Co. Ltd., Posco and China Steel Corporation, or the Asian Consortium, made an investment in our subsidiary Namisa. The joint control of Namisa was governed by a shareholders' agreement entered into with the Asian Consortium. In addition, we entered into certain other agreements, including a share purchase agreement and long-term operational agreements, which provided for certain obligations that, in case breached and not cured within the relevant cure period, could give rise, in certain situations, to the right of the non-breaching party to exercise a call or a put option, as the case may be, with respect to the Asian Consortium's ownership interest in Namisa.

In 2013, we and the Asian Consortium initiated negotiations to resolve certain matters that (i) were subject to qualified quorum under the shareholders' agreement, and (ii) related to the fulfillment of certain obligations under the agreements mentioned above. In parallel, we engaged in discussions with the Asian Consortium aiming at the combination of the iron ore business and related logistics assets of CSN and Namisa.

On November 30, 2015, the aforementioned discussions resolved upon the closing of an agreement between the Asian Consortium and us, providing for the combination of CSN's and Namisa's iron ore business and related logistics assets. The transaction consisted of a joint venture whereby the Asian Consortium contributed its 40% ownership interest in Namisa to CSN Mineração (formerly named Congonhas Minérios S.A.) and CSN contributed the Casa de Pedra iron ore mine, its 60% ownership interest in Namisa, an 8.63% ownership interest in MRS and the rights to manage and operate the port concession in the Itaguaí Port (TECAR). In addition, long-term "offtake" agreements were executed for the supply by CSN Mineração of iron ore products to the Asian Consortium members and to us, as well as a long term port services agreement was executed between CSN Mineração and CSN to guarantee the use of TECAR by CSN to import raw materials necessary for our other activities.

Considering CSN's and the Asian Consortium's contributions in the transaction, adjustments arising from the negotiations between the parties, as well as debt, cash and working capital adjustments, immediately after the closing, CSN and the Asian Consortium became shareholders of CSN Mineração with ownership interests of, respectively, 87.52% and 12.48%. The transaction also included an earn-out mechanism which, in the event of a qualified liquidity event under certain valuation parameters occurring within an agreed period of the closing of the transaction, could dilute the Asian Consortium's ownership interest in CSN Mineração from 12.48% down to 8.71%.

CSN Mineração is currently a fully integrated operation (mine, rail and port), which includes an 18.63% ownership interest in MRS (comprised of Namisa's former 10% ownership interest in MRS and the 8.63% ownership interest contributed by CSN), access to rail transportation in the form of long term agreements and the TECAR port concession.

As a result of this transaction, CSN and the Asian Consortium put an end to the discussions initiated in 2013 and CSN Mineração captured synergies among the businesses involved, including process optimization, efficiencies in the operation and reduction of operational costs and capital expansion and increased shareholder value, creating a world class company.

Metalic

On August 15, 2016, CSN's Board of Directors approved the sale of all shares issued by Metalic to Can-Pack Brasil Indústria de Embalagens Ltda., a subsidiary of the Polish metallic packaging company Can-Pack S.A., manufacturer and marketer of metallic packaging. The value of the transaction was R$372.5 million and the sale was effective as of November 30, 2016. For more information, see Note 4 to our consolidated financial statements included in "Item 18. Financial Statements."

Capital Expenditures

In 2016, the investments made by us totaled approximately R$1.6 billion, highlighting:

• Cement: R$657 million mainly for completion of the new clinker plant;

• Steel: R$588 million, mainly for sustaining investments in coke plants at UPV (Presidente Vargas plant), environmental projects at UPV, general repair for resuming operations of Blast Furnace No.2, technological

modernization projects at UPV and maintenance projects;

• Mining: R$257 million, mainly sustaining investment projects;

• Other investments: R$130 million for running investments in other operations (such as FTL and Tecon) and corporate projects (such as IT).

Planned Investments

In 2017, our investment budget prioritizes the sustainment of existing investments in order to maintain operational capability and to comply with environmental and safety requirements. New investments are evaluated considering the market conditions, financial results and projection of additional cash flow generated by each project.

Considering these guidelines, investments planned for 2017 amounted to R$1.0 billion, highlighted below:

• Steel: R$467 million, mainly for sustaining investments in coke plants UPV, environmental projects, technological modernization projects at the UPV plant, and maintenance projects in other units;

• Mining (projects at CSN Mineração, including Tecar): R$343 million, mainly for running projects in iron ore beneficiation, maintenance of tailings dams, expansions studies for Phase 60 Mtpa in Tecar (engineering and environmental studies) and sustaining investment projects in the units;

• Cement: R$96 million, especially sustaining projects in the units;

• Other investments: R$94 million for sustaining investments in other operations (such as FTL and Tecon) and corporate projects (such as IT);

Our planned investments in steel, iron ore, cement and logistics are described below.

Steel

The investment plan in the coming years prioritizes the sustainment of existing investments for efficiency gains, including the revamp of coke ovens, steel mill, pickling, casting, and execution of environmental projects, technological modernization projects at the UPVs and maintenance projects in other units.

Mining

The investment plan in the coming years prioritizes the sustainment of existing investments. Depending on the market conditions, financial results and projection of additional cash flow generated by each project, we intend to expand the production capacity in Casa de Pedra to 40 million tons per year. In addition, we plan to expand the and the port capacity in Itaguai / RJ (Tecar) from 45 million tons to 60 million tons.

Cement

In the second half of 2016, we began operating a new clinker kiln in Arcos in addition to our existing clinker kiln at the same location, where we use our own limestone and two cement mills. We also plan to evaluate the benefits of deploying an advanced milling unit to add 1 million tons of capacity.

Additional Investments

In addition to the currently planned investments and capital expenditures, we continue to evaluate possible acquisitions or divestitures, joint controlled entities and brownfield or greenfield projects to increase or complement our steel, cement and mining production and logistics capabilities, logistics infrastructure, energy generation and return on capital.

4E. Unresolved Staff Comments

None.

Item 5. Operating and Financial Review and Prospects

The following discussion should be read in conjunction with our consolidated financial statements as of December 31, 2016 and 2015, and for each of the years ended December 31, 2016, 2015 and 2014, included in "Item 18. Financial Statements." Our consolidated financial statements were prepared in accordance with IFRS as issued by the IASB and are presented in thousands of *reais* (R$), as explained in Note 2(a) to our consolidated financial statements included in "Item 18. Financial Statements."

The consolidated financial statements for the year ended December 31, 2015 have been restated to reflect the outcomes of a detailed review of the business combination transaction that occurred on November 30, 2015, involving our mining and related logistics assets, as well as the outcomes of the in-depth review we performed of various components and transactions, including studies that support the recognition and maintenance of the amounts of long-lived assets, investments in subsidiaries and associates, goodwill, property, plant and equipment and tax credits. The reviews mentioned above resulted in material adjustments to the following items:

(a) Business Combination

1. The Business Combination involving CSN Mineração and Namisa;

2. Adjustments to the participation of the non-controlling interest of CSN Mineração resulting from a change in the interpretation of the application of the IFRS 3 accounting pronouncement.

(b) Expected realization of income tax and social contribution tax credits.

For more information, see Note 2.a.a to our consolidated financial statements included in "Item 18. Financial Statements."

5A. Operating Results

Overview

Brazilian Macro-Economic Scenario

As a company with the vast majority of its operations and a large portion of its sales in Brazil, we are affected by the general economic conditions of Brazil. The rate of growth in Brazil is important in determining our growth capacity and the results of our operations.

The following table shows some Brazilian economic indicators for the periods indicated:

	Year ended December 31,		
	2016	**2015**	**2014**
GDP growth	(3.6%)	(3.8%)	0.1%
Inflation (IPCA)[1]	6.3%	10.7%	6.4%
Inflation (IGP-M)[2]	7.2%	10.5%	3.7%
CDI[3]			