NATIONAL STEEL CO Form 20-F April 30, 2014

As filed with the Securities and Exchange Commission on April 30, 2014

### **UNITED STATES**

### SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 20-F

1	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, 2013
	OR
1	TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF
	THE SECURITIES EXCHANGE ACT OF 1934
	OR
1	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)

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(Address of principal executive offices)

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

<u>Title of each class</u> Common Shares without par value American Depositary Shares, (as evidenced by American Depositary Receipts), each representing one share of Common Stock Name of each exchange on which registered

New York Stock Exchange\* 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.

1,457,970,108. 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.

### R Yes 1 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.

#### 1 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 1 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).

### 1 Yes 1 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 1 Non-accelerated Filer 1

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

U.S. GAAP 1

Other 1

### 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 1 Item 18 1

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).

1 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 reported in International Financial Reporting Standards as issued by the IASB – IFRS as of December 31, 2011 and 2012 and for the years ended December 31, 2010, 2011 and 2012, together with the corresponding Reports of 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;

- the ongoing effects of the global financial markets and economic slowdown;
- changes in competitive conditions and in the general level of demand and supply for our products;
- management's expectations and estimates concerning our future financial performance and financing plans;
- our level of debt;
- 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, 2013 and 2012 and for the years ended December 31, 2013, 2012 and 2011 contained in "Item 18. Financial Statements" have been presented in thousands of *reais* (R\$) and prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (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, 2013, 2012, 2011, 2010 and 2009.

The consolidated financial statements included in this annual report have been prepared in accordance with IFRS, as issued by the IASB, in *reais*. However, we have translated some of the *real* amounts contained in this annual report into U.S. dollars. The rate used to translate such amounts in respect of the year ended December 31, 2013 was R\$2.343 to U.S.\$1.00, which was the commercial rate for the purchase of U.S. dollars in effect as of December 31, 2013, 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 *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 and Financial Data

The following tables present summary historical consolidated financial and operating data for us for each of the periods indicated. Solely for the convenience of the reader, *real* amounts as of and for the year ended December 31, 2013 have been translated into U.S. dollars at the commercial market rate in effect as of December 31, 2013 as reported by the Central Bank of R\$2.343 to U.S.\$1.00. The selected financial data below should be read in conjunction with "Item 5. Operating and Financial Review and Prospects."

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 amendments provide 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 and the opening balance sheet as of January 1,

2012 have been restated for the effects of the retrospective adoption of these new standards. Our financial statements as of and for the year ended December 31, 2011 remain unchanged and as disclosed previously. The selected financial data for the years ended December 31, 2011, 2010 and 2009 have not been retrospectively adjusted and, as a result, are not comparable with the information as of and for the years ended December 31, 2012.

	Year Ended December 31,					
Income Statement Data:	2013 (in million of U.S.\$, except per share	2013	2012	<b>2011</b> <sup>(2)</sup>	<b>2010</b> <sup>(2)</sup>	2009 <sup>(2)</sup>
	data)	(in milli	on of R\$, ex	cent ner	sharo da	ta)
Net operating revenues	7,389	17,312	15,229	16,520	14,451	10,978
Cost of products sold	(5,302)	(12,423)	(11,259)	(9,801)	(7,883)	(7,211)
Gross Profit	2,087	4,889	3,970	6,719	6,568	3,768
Operating expenses	_,	-,	- ;	-,	-,	-,
Selling	(373)	(875)	(774)	(604)	(482)	(447)
General and administrative	(207)	(486)	(468)	(576)	(537)	(480)
Equity in results of affiliated	. ,	× ,		. ,		. ,
companies	67	158	642	-	-	-
Other expenses	(484)	(1,134)	(2,763)	(501)	(599)	(648)
Other income	242	567	111	719	49	1,369
Total	(755)	(1,770)	(3,252)	(962)	(1,569)	(206)
Operating income Non-operating income (expenses),	1,332	3,120	719	5,757	4,998	3,561
net			• • •			
Financial income	73	171	391	717	643	586
Financial expenses	(1,145)	(2,683)	(2,543)	(2,723)	(2,555)	(832)
Income before taxes Income tax	259	608	(1,433)	3,751	3,087	3,315
Current	(551)	(1,291)	(322)	(136)	(363)	(577)
Deferred	519	1,217	(322)	(130)	(207)	(377) (123)
Detened	017	-,,	1,270	52	(207)	(120)
Total	228	534	(481)	3,667	2,516	2,615
Net income	228	534	(481)	3,667	2,516	2,615
Net loss attributable to noncontrolling interest	11	25	(61)	(39)	-	(4)
Net income attributable to Companhia Siderúrgica Nacional	217	509	(421)	3,706	2,516	2,619

Basic earnings per common share	0.14901	0.34913	-0.28815	2.54191	1.72594	175,478
Diluted earnings per common share	0.14901	0.34913	-0.28815	2.54191	1.72594	175,478

	As of December 31,					
<b>Balance Sheet Data:</b>	2013	2013	2012	2011 <sup>(2)</sup>	<b>2010</b> <sup>(2)</sup>	<b>2009</b> <sup>(2)</sup>
	(in million of U.S.\$)		(in million of R\$)			
Current assets	7,001	16,403	19,099	21,945	15,794	12,835
Investments	5,756	13,487	10,840	2,088	2,104	322
Property, plant and						
equipment	6,364	14,911	18,519	17,377	13,777	11,133
Other assets	2,391	5,602	4,825	5,460	6,380	6,436
Total assets	21,512	50,403	53,283	46,870	38,055	30,726
Current liabilities	2,375	5,564	6,551	6,497	4,456	3,998
Non -current liabilities	15,694	36,770	37,724	31,956	25,776	20,139
Stockholders' equity	3,444	8,069	9,008	8,417	7,823	6,589
Total liabilities and						
stockholders' equity	21,512	50,403	53,283	46,870	38,055	30,726
Paid-in capital (in millions						
of R\$)	1,938	4,540	4,540	1,681	1,681	1,681
Common shares (quantities)	622	1,457	1,457	1,457	1,457	1,457
Dividends declared and interest on						
stockholders' equity (in						
millions of R\$) <sup>1</sup>	341	800	300	1,200	1,856	1,819
Dividends declared and				,	,	,
interest on						
stockholders' equity per						
common share (in <i>reais</i> ) <sup>1</sup>	0.23	0.55	0.21	0.82	1.27	1.25

- (1) Amounts consist of dividends declared and accrued interest on shareholders' equity during the year. For a discussion of our dividend policy and dividend and interest payments made in 2013, see "Item 8A. Consolidated Statements and Other Financial Information-Dividend Policy."
- (2) The selected financial data for the years ended December 31, 2011, 2010 and 2009 have not been retrospectively adjusted for the effects of the adoption of IFRS 10 and 11 as permitted by the transition guidance related to these standards. See note 2(y) and 3 to our consolidated financial statements.

### **Exchange Rates**

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 the recent decades.

Between 2000 and 2008, the *real* fluctuated significantly against the U.S. dollar, reaching a peak of R\$3.53 per U.S.\$1.00 at the end of 2002 and a low of R\$1.56 per U.S.\$1.00 in August 2008. In the context of the crisis in the global financial markets after mid-2008, the real depreciated 31.9% against the U.S. dollar throughout 2008, reaching R\$2.337 per U.S.\$1.00 on December 31, 2008. From 2009 to 2011, the real appreciated 19.7% against the U.S. dollar and reached R\$1.876 per U.S.\$1.00 at year end 2011. In 2012, the real depreciated 17.6% and on December 31, 2012 the exchange rate was R\$2.04 per U.S.\$1.00. In 2013, the real depreciated 15% and on December 31, 2013 the exchange rate was R\$2.343 per U.S.\$1.00. On April 29, 2014 the exchange rate was R\$2.200 per U.S.\$1.00. 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 *real* to float freely or will intervene in the exchange rate market through a currency band system or otherwise. The *real* may depreciate or appreciate against the U.S. dollar substantially.

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

			Average	
Year ended	Low	High	(1)	Period-end
December 31, 2009	1.702	2.422	1.994	1.741
December 31, 2010	1.655	1.881	1.759	1.666
December 31, 2011	1.535	1.902	1.675	1.876
December 31, 2012	1.702	2.112	1.955	2.044
December 31, 2013	1.953	2.446	2.161	2.343
Month ended	Low	High	Average	Period-end
October 2013	2.161	2.213	2.189	2.203
November 2013	2.243	2.336	2.295	2.325
December 2013	2.310	2.382	2.346	2.343
January 2014	2.334	2.440	2.382	2.426
February 2014	2.333	2.424	2.384	2.333
March 2014	2.260	2.365	2.326	2.263
April 2014 (through April 29, 2014)	2.197	2.281	2.233	2.220

### Source: Central Bank.

(1)

Represents the daily average of the close exchange rates during the period.

We will pay any cash dividends and make any other cash distributions 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 *real* and the U.S. dollar may also affect the U.S. dollar equivalent of the *real* price of our common shares on BM&FBOVESPA.

### **3B.** Capitalization and Indebtedness

Not applicable.

### 3C. Reasons for the Offer and Use of Proceeds

Not applicable.

### **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 exercises significant influence over the Brazilian economy. This influence, as well as Brazilian political and economic conditions, could materially and adversely affect us.

The Brazilian government frequently intervenes in the Brazilian economy and occasionally makes significant changes in policy and regulation. See "—Government efforts to combat inflation may hinder the growth of the Brazilian economy and could harm our business" and "Item 5A. Operating Results—Brazilian Macro-Economic Scenario, Effects of Exchange Rate Fluctuations." The Brazilian government's actions, policies and regulations have involved, among other measures, increases in interest rates, changes in tax policies, price controls, currency devaluations, capital controls and limits on imports. Our business, financial condition and results of operations may be adversely affected by political, social, and economic developments in or affecting Brazil, and by changes in policy or regulations at the federal, state or municipal levels 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 shortages and rationing programs;
- liquidity of the domestic capital and lending markets;
- regulatory policy for the mining and steel 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.

Recent economic and political instability may lead to legislative or regulatory changes that could negatively affect us. In addition, such changes may also lead to further economic uncertainty and to heightened volatility and negative perception of the Brazilian securities markets which may adversely affect us and the trading price of our common shares.

Political crisis in Brazil in the past have affected the development of the Brazilian economy and the trust of foreign investors, as well as the public in general. Recent popular unrest in Brazil has led to large demonstrations in mid-2013, which serves as an example of the population's growing dissatisfaction with corruption and certain political measures.

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

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The Brazilian currency has long experienced frequent and substantial variations in relation to the U.S. dollar and other foreign currencies. For example, the *real* appreciated 11.8%, 8.7% and 17.2% against the U.S. dollar in 2005, 2006 and 2007, respectively. In 2008, as a result of the worsening global economic crisis, the *real* depreciated 32% against the U.S. dollar, closing at R\$2.337 to U.S.\$1.00 on December 31, 2008. For the years ended December 31, 2009 and 2010, the *real* appreciated 25.5% and 4.2%, respectively, against the U.S. dollar, closing at R\$1.741 and R\$1.666 to U.S.\$1.00 on December 31, 2009 and 2010, respectively. For the years ended December 31, 2012 and 2013 the *real* depreciated 12.6%, 8.9% and 14.6%, respectively, against the U.S. dollar, closing at R\$1.876, R\$2.044 and R\$2.343 to U.S.\$1.00, respectively. On April 29, 2014 the exchange rate was R\$2.220 per U.S.\$1.00.

Depreciation of the *real* against major foreign currencies could create inflationary pressures in Brazil and contribute to Central Bank increases in interest rates, which could negatively affect us and the growth of the Brazilian economy, may curtail access to foreign financial markets and may prompt government intervention, which could include recessionary measures. Depreciation of the *real* can also, as in the context of an economic slowdown, lead 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 major foreign currencies could lead to a deterioration of Brazilian foreign exchange current accounts, as well as affect 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 our 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 had total U.S. dollar-denominated or -linked indebtedness of R\$10,875 million, or 39.03% of our total indebtedness, as of December 31, 2013.

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

Brazil has in the past experienced extremely high rates of inflation, which has led the government to pursue monetary policies that have contributed to one of the highest real interest rates in the world. Since the implementation of the *Real* Plan in 1994, the annual rate of inflation in Brazil has decreased significantly, as measured by the National Broad Consumer Price Index (*Índice Nacional de Preços ao Consumidor Amplo*, or IPCA). Inflation measured by the IPCA index was 6.5%, 5.8% and 5.9% in 2011, 2012 and 2013, respectively. Inflation and the Brazilian government's inflation containment measures, mainly through monetary policies, have had and may have significant effects on the Brazilian economy and our business. Tight monetary policies and interest rate decreases may restrict Brazil's growth and the availability of credit. Conversely, more lenient policies and 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*.

# Developments and 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 investors' 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 or impossible for us to access the capital markets and finance our operations on acceptable terms.

### 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. Reduced demand can lead to overcapacity and excessive downtime, lower utilization of our significant fixed assets and therefore reduced operating profitability. In addition, flat steel competes with other materials that may be used as substitutes, such as aluminum (particularly in the automobile 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 for steel and iron ore in the domestic or export markets served by us could have a material adverse effect on us.

# 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 2013, raw material costs accounted for 53.2% 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 56.8% 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 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, 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 recently 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 in the future.

Since 2010, steel companies in Brazil have faced strong competition from imported products, mainly as a result of the reduction in demand for steel products in mature markets, the exchange rate appreciation and tax incentives. The Brazilian government adopted measures to contain imported products and, as a result, prices of imported products stabilized as compared to local products. These measures had a positive effect in 2011 and subsequent years, when imports were consistently reduced. If the Brazilian Government fails to act against cheaper 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.

# Adverse economic developments in China 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 last few years, effectively driving global prices for iron ore and steel. In 2013, China accounted for 68% of the global seaborne iron ore trade. The percentage of our iron ore sales volume to consumers in China was 52% in 2013. A contraction of China's economic growth could result in lower global demand for iron ore and steel and increase the global steel industry 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 consumers of carbon steel in China, could also negatively impact our results.

### 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 duties and safeguard measures were imposed in the late 1990s and early 2000s by foreign governments representing the main markets for our exports. In 2011, both the anti-dumping duties imposed by Argentina and the anti-dumping and countervailing duties imposed by the United States were terminated. Restrictions imposed by Canada on imports of hot-rolled products from Brazil remain in effect. In addition, technical or safety measures, such as those imposed by the European Union on imports of certain chemical substances contained either in products used to protect and/or pack steel products, may be adopted and as a result create barriers to steel exports. 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 are subject to governmental authorizations, concessions, licenses or permits, which include environmental licenses for our infrastructure projects and concessions, such as for our railways. Although we believe that such authorizations, concession, 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. We also cannot guarantee that our controlled entities that hold concessions will timely comply with its obligations under any relevant Concession Agreement or in Terms of Undertaking (Termos de Ajustamento de Conduta), or TACs, entered into with governmental regulatory agencies. Any of these events may result in the loss or early termination of concessions. The loss or inability to obtain and/or renew any authorization, concession, permit or license, or changes in the regulatory

framework that we operate in, may materially and adversely affect us.

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. These changes and additional costs may have a negative impact on the profitability of our projects or even make certain projects economically or otherwise unfeasible.

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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. The Brazilian Congress is currently reviewing a bill that proposes significant changes to the Mineral Code, including a potential increase of the royalties (CFEM) charged for our mining activities. See "Item 4B. Business Overview–Government Regulation and Other Legal Matters–Brazil – mining regulation –Mineral Rights and Ownership."

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

As of December 31, 2013, our total debt outstanding amounted to R\$27,864 million, consisting of R\$2,674 million of short-term debt and R\$25,190 million of long-term debt. See "Item 5B. Liquidity and Capital Resources" and "Item 18. Financial Statements." Although we had R\$9,996 million of cash and cash equivalents as of December 31, 2013, our planned investments in all of our business segments will require a significant amount of cash over the course of 2014 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 us more vulnerable in the event of a 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.

# Malfunctioning equipment or accidents on our premises, railways or ports may decrease or interrupt production, internal logistics or distribution of our products.

The steel and iron ore production processes depend on certain critical equipment, such as blast furnaces, steel converters, continuous casting machines, 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. In 2006, there was an accident involving the gas cleaning system adjacent to Blast Furnace No. 3 at the Presidente Vargas Steelworks, which prevented us from operating this blast furnace for approximately six months. Similar or any other significant interruptions in our production process, internal logistics or distribution channels (including our ports and railways) could materially and adversely affect us.

### 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), carrier liability, life insurance, personal accidents, health, auto insurance, D&O, general liability, erection risks, boiler and machinery coverage, trade credit insurance, surety, ports and terminal liabilities. We also have an operational risks policy for the Presidente Vargas Steelworks and some of our branches and subsidiaries for a total insured value of U.S.\$500 million out of a total risk amount of U.S.\$15.4 billion. Under the terms of this policy we remain responsible for the first U.S.\$300 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 or delay or 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:

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• 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.

## Current, new or more stringent environmental, safety and health regulations imposed on us may result in increased liabilities and increased 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, restrictions on business expansions, native forest preservation requirements, and the obligation to create privately owned conservation areas, 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 Mudancas 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. The federal 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.

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. 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 penalties, criminal sanctions and closure orders for non-compliance with these regulations. 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 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."

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#### Our governance and compliance processes 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 processes may not prevent future 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 failure to comply with applicable laws and other standards could subject us to fines, loss of operating licenses and reputational harm, which may materially and adversely affect us.

## Some of our operations depend on joint ventures, 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 and consortia with other companies. We have, among others, established a joint-venture with an Asian consortium at our 60% joint-controlled investee Nacional Minérios S.A., or Namisa, to mine iron ore; 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, 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 a joint-venture with Tractebel Energia S.A. and Cia. de Cimento Itambé at Itá Energética S.A., or ITASA, to produce electricity, and a consortium with Vale S.A., Votorantim Metais Zinco S.A., CEMIG Geração e Transmissão S.A. and Anglo Gold Ashant Córrego do Sítio Mineração S.A. at Igarapava Hydroelectric Power Plant to produce electricity.

Our forecasts and plans for these 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. In addition, certain of our joint-venture agreements also provide for customary dispute and deadlock resolution mechanisms, as well as put and call options exercisable under certain circumstances, which may require us to incur substantial disbursements. Any of these events may have a material adverse effect on us.

# 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 and 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."

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# 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 in 2011, 2012 and 2013, respectively, 35%, 26% and 27% of our total net revenues. Our ability to rapidly increase production capacity is limited, which could render us unable to fully satisfy demand for our products. 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.

Conversely, 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.

### 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.

### 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 of water supply, leakages, accidents, telecommunications and information technology system failures, as well as political and economic instability, including a global economic slowdown. 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 could affect our iron ore and logistics 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 liability, 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 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. Strikes and other labor disruptions at any of our facilities or labor disruptions involving third parties who may provide us with goods or services, have in the past and may in the future materially and adversely affect the operation of our facilities, 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 claims. For some of these legal proceedings and claims, we have not established any provision on our balance sheet or have only established provisions for part of the amounts in question, based on our external 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 permits 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 10.D. 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 our bylaws, the first call for a shareholders' meeting must be published at least 15 days in advance of the meeting, and the second call must be published at least eight 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 51.8% of the total market capitalization of the BM&FBOVESPA as of December 31, 2013. The top ten stocks in terms of trading volume accounted for 36.9%, 43.0% and 47.2% of all shares traded on the BM&FBOVESPA in 2013, 2012 and 2011, 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 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."

# Item 4. Information on the Company

## 4A. History and Development of the Company

## History

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 Congonhas, Minas Gerais, and the Arcos Mine, located in Arcos, 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 U.S.\$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. We are now an important exporter of iron ore, drawing from our high quality iron ore reserves in the Casa de Pedra and Namisa mines, located in the state of Minas Gerais. We also own the concession to operate the Terminal de Carvão, or TECAR, the solid bulks terminal, located in Itaguaí Port in the state of Rio de Janeiro, through which we export iron ore and import 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 to the production of flat steel, a new plant for production of long steel products has been installed at Volta Redonda and started assisted 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. We expect this plant to reach 500,000 t/year when fully operational, providing the domestic market with products for civil construction.

# General

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 Presidente Vargas Steelworks, production of crude steel increased by 2% as compared to 2012, while the production of rolled steel products decreased 2% when compared to 2012. We also operate in the mining, cement, logistics and energy businesses, which have become increasingly important to our operations and growth.

## Steel

Our fully integrated manufacturing facilities at the 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 production process is based on the integrated steelworks concept. Below is a brief summary of the steel making process at our Presidente Vargas Steelworks:

- Iron ore produced from our own mines is processed in continuous sintering machines to produce sinter;
- Sinter and lump ore direct charges are smelted with lump coke and injected powdered coal in blast furnaces to produce pig iron;
- Pig iron is then refined into steel via basic oxygen converters;
- Steel is continuously cast in slabs; and
- Slabs are then hot rolled, producing hot bands that are coiled and sent to finishing facilities.

We currently obtain all of our iron ore, limestone and dolomite requirements, and a portion of our tin requirements from our own mines. Using imported coal, we produce approximately 56.8% 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.

On January 31, 2012, in an effort to strengthen our position in the long steel segment, we acquired SWT for  $\notin$ 483.4 million. SWT is a long steel producer in Germany with annual production capacity of approximately 1.1 million tons of steel profiles.

In addition to the production of flat steel, a new plant for production of long steel products has been installed at Volta Redonda and started assisted 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. We expect this plant to reach 500,000 t/year when fully operational, providing the domestic market with products for civil construction.

# Mining

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 mine, located in Congonhas, and we have a jointly-controlled investee, Namisa, which includes the Fernandinho mines, located in Itabirito, Engenho and Congonhas. Our mining assets also include TECAR, Mineração Bocaina, located in Arcos, in the state of Minas Gerais, which produces dolomite and limestone and Estanho de Rondônia S.A., or ERSA, located in Ariquemes, in the state of Rondônia, which mines and casts tin.

# Logistics

Our verticalization strategy and intense synergies among our business units are strongly dependent on the logistics created 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 manage two port terminals at Itaguaí, in Rio de Janeiro, one for bulk solids (TECAR) and one for containers (Sepetiba Tecon).

We also have interests in three railways: we share control in MRS Logística, which operates the former Southeast Network of the Federal Railway Network, along the Rio de Janeiro-São Paulo-Belo Horizonte axis; we also have an interest in jointly-controlled investee Transnordestina Logística S.A., or TLSA; and we control Ferrovia Transnordestina Logística S.A, or FTL, which operates the former Northeastern Railway System, or RFFSA.

Cement

We entered the cement market in May 2009, driven by the high synergy with our current 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.

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

We are one of Brazil's largest industrial electric power consumers. Since 1999, we have invested in power generation projects in order to ensure self-sufficiency. Our electrical assets include: (i) CSN's 29.5% stake in the Itá Hydroelectric Power Plant, in Santa Catarina, corresponding to 167 MW, through a 48.75% equity interest in ITASA; (ii) CSN's 17.9% interest in the 210-MW Igarapava Hydroelectric Power Plant in Minas Gerais, corresponding to 23 MW; and (iii) a 235.2 MW cogeneration thermoelectric power plant in Presidente Vargas Steelworks, which is fueled by the waste gases from the steel production process. These three plants give CSN an average generation capacity of 425 MW, supplying the group's total need for power.

# **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, 19<sup>th</sup> and 20<sup>th</sup> floors and 15<sup>th</sup> floor - part, 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 an almost fully integrated steelmaker. This is due to our captive sources of raw materials, principally iron ore, and our owned 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 purchase their iron ore from mining companies such as Vale S.A., or Vale. In addition to our iron ore reserves, we have captive dolomite and limestone mines that supply our Presidente Vargas Steelworks. See "—Our mining segment" and "Item 4D—Property Plant and Equipment."

*Profitable mining business.* We have in recent years invested significantly in our mining business, placing CSN in a prominent position among the country's leading mining firms. In a first expansion phase, we plan to increase Casa de Pedra's production capacity to 40 million tons per year, and we expanded the iron ore shipment capacity of TECAR, our cargo terminal in Port of Itaguaí, to 45 million tons in 2013.

The Company has high-quality iron ore reserves in the Casa de Pedra and Namisa mines (Engenho and Fernandinho), all located in Minas Gerais. Our mining activities provide strong revenue generation. We sold 17.5 million tons in 2009, 18.6 million tons in 2010, 23.8 million tons in 2011, 20.2 million tons in 2012 and 21.5 million tons in 2013 (taking into account our proportional interest in Namisa throughout this period). The company's mining assets also include TECAR with a capacity for 45 mtpy, located in Itaguaí Port (RJ), Mineração Bocaina, located in Arcos (MG), which produces dolomite and limestone and ERSA, which mines and casts tin.

*Thoroughly developed transport infrastructure.* We have a thoroughly developed transport infrastructure, connecting our iron ore mine to our steel mill and to our ports. 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 principal 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 33.27% 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 exports and most of our steel exports. Since we obtained the concession to operate MRS railway, in 1996, we have significantly improved its tracks and developed its business, with increased cash generation. We also own concessions to operate two deep-sea water terminals through which we export our products, and import coal and small amounts of coke, the only important raw materials that we need to purchase from third parties.

*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 inside the Presidente Vargas Steelworks. We also sell the excess energy we generate in the energy market. Our 235.2 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 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. We have been using part of our 23 MW of assured energy from Igarapava to supply energy to the Casa de Pedra and Arcos mines.

*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. Other factors that lead to these margins are the strategic location of our steelworks facility, the use of state of the art technology and our well qualified work force.

*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, representing 76% of our steel sales in the domestic market. In addition, we use our subsidiaries CSN LLC and Lusosider also as sales channels for our flat steel products in the United States and in Europe, with approximately 9% of our total sales in 2013. Direct exports accounted for 3% of our total sales in 2013. 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 2013, SWT accounted for 12% of our total sales.

# Strategies

Our goal is to increase value for our shareholders by further benefiting from our competitive cost advantages, maintaining our position as one of the world's lowest-cost steel producers, becoming an important iron ore global

player, developing our cement business and optimizing our infrastructure assets (including ports, railways and power generating plants). To achieve this goal we developed specific strategies for each of our business segments, as described below.

# Steel

The strategy for our steel business involves:

ü A focus on the domestic market, in which we have historically recorded higher profit margins and increased competitiveness, by expanding our market share in flat steel and entering in the Brazilian long steel market;

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

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

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

ü Increasing market share by expanding our services and distribution network;

ü Geographical diversification through our flat and long steel facilities abroad.

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 expand our mining assets, Casa de Pedra and Namisa, and search for investment opportunities, primarily in mines in operation or in an advanced stage of development.

In a first expansion phase, we plan to increase Casa de Pedra's production capacity to 40 million tons per year, and we expanded the iron ore shipment capacity of TECAR, our cargo terminal in Port of Itaguaí, to 45 million tons in 2013. In order to maximize the profitability of our product portfolio, we will also focus on pellet and pellet-feed, by using Itabirito's deposits and investing with strategic partners and clients in pellet capacity.

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 take advantage of and 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), with low cost and efficiency by integrating and increasing the use of rail transportation, and by providing more distribution centers.

In addition to investments in TECAR, we will strengthen Sepetiba TECON, our container terminal, in order to accommodate larger ships, increasing its capacity and competitiveness by adding services to strengthen client loyalty.

In terms of railways, the Transnordestina Logística project is being developed to explore a logistic potential through terminals and regional cargo, 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.

On September 20, 2013 we entered into an investment agreement with our partners in TLSA, Valec Engenharia, Construções e Ferrovias S.A. and Fundo de Desenvolvimento do Nordeste – FDNE, two Brazilian federal government entities focused on infrastructure and the development of the northeastern region, to implement the partial spin-off of TLSA. The operation was part of a business reorganization and resulted in the segregation of the assets of the Northeastern railway system into two systems: (i) Railway System I, operated by FTL, comprising the stretches between the cities of São Luís – Mucuripe, Arrojado – Recife, Itabaiana – Cabedelo, Paula Cavalcante – Macau and Propiá – Jorge Lins and (ii) the Railway System II, operated by TLSA, comprising the stretches between Missão Velha – Salgueiro, Salgueiro – Trindade, Trindade – Eliseu Martins, Salgueiro – Porto de Suape and Missão Velha – Porto de Pecém.

As a result of the partial spin-off and the subsequent entry into effect of the new shareholders' agreement, control of TLSA is now shared with other shareholders, who have veto rights over certain important corporate decisions. As a result, we ceased to consolidate TLSA and began recognizing it in accordance with the equity accounting method. See "Item 4B. Business—Our Logistics Segment—Railways—Northeastern Railway System."

# Cement

Our cement business strategy involves the utilization of the limestone reserves in our Arcos mine and the slag generated by our blast furnaces in our cement plant in Volta Redonda, inaugurated in 2009, with capacity to produce 2.4 million tons per year. In 2011, we began producing clinker in the Arcos plant with the aim of reducing our production costs. We intend to expand our cement production capacity to 5.4 million tons per year over the next few years. We expect that the additional 3.0 million tons per year capacity will come from a new plant that will be integrated with a grinding unit and clinker furnace in Arcos, where we already operate a clinker furnace, using limestone from our own mine.

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, joint ventures and brownfield or greenfield projects to increase or complement our steel, cement and mining production and 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

The following chart reflects our flat steel production cycle in general terms.

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 "—Product 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.

# 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, mechanical construction and other 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. Compared to hot-rolled products, cold-rolled products have more uniform thickness and better surface quality and are used in applications such as automotive bodies, home appliances and construction. In addition, cold-rolled

products serve as the base for galvanized and tin mill products. We supply cold-rolled coils in thicknesses of between 0.30 millimeters and 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:

• bodies for automobiles, trucks and buses;

• 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 heavy machinery.

In addition to standard galvanized products, we produce *Galvanew*®, galvanized steel that is subject to a special annealing process following the 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 cold-rolled material coated with a zinc-aluminum alloy. The production process is similar to hot-dip galvanized coating, and 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 value-added galvanized products present one of our best opportunities for profitable growth because of the anticipated 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 coating 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.

# **Production Process**

The main raw materials used in flat production in an integrated steelworks are iron ores, coals, coke, and fluxes such as limestone and dolomite. The iron ore consumed at the Presidente Vargas Steelworks is extracted, crushed, classified, screened (treatment process) and transported by railway from our Casa de Pedra mine, located in the city of Congonhas, in the State of Minas Gerais, 328 km away from the Presidente Vargas Steelworks. The high quality ores mined and sized at Casa de Pedra, with iron content of approximately 60%, and its low extraction costs are major contributors to our low steel production costs.

We import all the hard coking coals required for coke production and PCI coals for the blast furnace process, due to the lack of hard coking and PCI coals with the appropriate quality in Brazil. The hard coking coals are then charged in coke batteries to produce coke through a distillation process. See "—Raw Materials and Suppliers—Raw Materials and Energy Requirements." This coal distillation process also produces coke oven gas as a byproduct, which we use as a main source of fuel for our thermoelectric co-generation power plant. After being screened, coke is transported to blast furnaces, where it is used as a combustion source and also as a component to transform iron ore to hot metal. In 2013, we produced approximately 59% of our coke needs and imported the balance, compared to 67 % in 2012.

At sintering plants, fine-sized iron ore and coke breeze or other fine-sized solid fuels are mixed with fluxes (limestone and dolomite) to produce sinter. The sinter, lump iron ore, iron ore pellets, which are 100% acquired in the domestic market, fluxing materials and coke are then loaded into our two operational blast furnaces for smelting. We operate a pulverized coal injection facility, or PCI, which allows to inject low-cost pulverized coals directly into the blast furnaces, replacing approximately one-third of the total coke demand.

The iron ore and iron ore pellets are reduced to pig iron through successive chemical reactions with carbon monoxide (from the coke and PCI) at the blast furnaces, which operate 24 hours a day. The iron and iron ore pellets are gradually reduced, then melts and flows downward. Impurities are separated from the hot metal to form a liquid slag with the loaded fluxes (limestone and dolomite). From time to time, hot metal (white-hot liquid iron) and slag are drained from

the bottom of the furnace. Slag (containing melted impurities) is granulated and used to produce cement.

The hot metal is transported to the steelmaking shop by 350-ton capacity torpedo cars and charged in basic oxygen furnaces together with scrap and fluxes. At the basic oxygen furnaces, oxygen is blown onto the liquid burden to oxidize its remaining impurities and to lower its carbon content, thus producing liquid steel. The molten steel is conveyed from the basic oxygen furnaces to the secondary refining equipment (degasser, ladle furnace and Argon Stirring Station). After adjusting the chemical composition, the molten steel is transferred to the continuous casting machines from which crude steel (i.e., rectangular shaped slabs) is produced. A portion of the slab products can be sold directly in the export market.

In the hot rolling process, reheated slabs from the continuous casting machines are fed into hot strip mills to reduce the thickness of the slabs from 250 millimeters to a range of between 1.2 and 12.7 millimeters. At the end of the hot strip mill, the long, thin steel strip from each slab is coiled and conveyed to a cooling yard. Some hot-rolled coils are dispatched directly to customers in the as-rolled condition. Others are further processed at the pickling lines, in a hydrochloric bath, to remove surface oxides and improve surface quality. After pickling, the hot-rolled coils selected to produce thinner materials are sent to be rolled at cold strip mills. CSN has three cold strip mills, one of which was revamped in September 2011, adding 150,000 tons per year to CSN's cold rolling capacity. The better surface characteristics of cold-rolled products enhance their value to customers when compared to hot-rolled products. Additional processing related to cold-rolling may further improve surface quality. Following cold-rolling, coils may be annealed, coated (by a hot dip or electrolytic tinning process) and painted, to enhance medium-and long-term anti-corrosion performance and also to add characteristics that will broaden the range of steel utilization. Coated steel products have higher profit margins than bare steel products. Of our coated steel products, tin mill and galvanized products are our highest margin products.

Steel plant equipment regularly undergo scheduled maintenance shutdowns. Typically the rolling mills and coating lines are maintained on a weekly or monthly basis whereas the blast furnaces and other special equipment are scheduled for routine maintenance on a semi-annual or annual basis.

Our business encompasses operational and commercial activities. Our operations are undertaken by our production sector, which is composed of the following two units:

- The operational unit responsible for steel production operations, repair shops, in-plant railway, and process development at our Presidente Vargas Steelworks; and
- The support unit responsible for production planning, management of product stockyards, energy and utility facilities and work force safety assistance at the Presidente Vargas Steelworks.

The production sector is also responsible for environment and quality consultancy, new product development, capital investment implementation for steel production and processing, and the supervision of CSN Porto Real's and CSN Paraná's operations.

# Quality Management Program

We maintain a Quality Management System that is certified to be in compliance with the International Standardization Organization ISO 9001 standard and the automotive industry's Technical Specification ISO/TS 16949. Our Quality Management System has maintained certification of compliance to ISO 9000 standards since March 1993, when we were awarded the ISO 9002 certificate of compliance and in April 1996 when we were awarded the ISO 9001 certificate of compliance to QS 9000 standards in April 1998. In June 2004, we made the transition from the QS 9000 standard and were awarded the automotive industry's Technical Specification ISO/TS 16949. The most recent renewal to the ISO 9001:2008 version, awarded in August 2011, is for the design and manufacture of slabs, hot rolled flats, pickled and oiled steel products, cold rolled, galvanized steel products and tin mill products. In September 2011, we were awarded the ISO/TS 16949:2009, third edition, for the manufacture of hot-rolled, pickled and oiled, cold-rolled and galvanized steel products. Our intention is to renew these certificates of

compliance by August 2014 and include in the scope of the ISO 9001 certificate of compliance the manufacture of rebar, bars and rods that will be produced by our new long products plant.

## **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)		
2013	34,2	4,5	13,2%
2012	34.7	4.8	13.8%
2011	35.2	4.9	13.9%
2010	32.8	4.9	14.9%
2009	26.5	4.4	16.6%

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**

	2013	2012	2011
	(In millions of	(In millions of	(In millions of
	tons)	tons)	tons)
Production of:			
Iron Ore *	15.4	19.8	20.1
Molten Steel	4.6	5.0	5.0
Crude Steel	4.5	4.9	4.9
Hot-Rolled Coils and Sheets	5.0	4.8	4.8
Cold-Rolled Coils and Sheets	2.7	2.6	2.4
Galvanized Products	1.5	1.2	1.4
Tin Mill Products	0.7	0.5	0.7
Consumption of Coal for Coke Batteries	1.5	1.9	2.1
Consumption of Coal for PCI	0.6	0.7	0.6
*Casa de Pedra			

#### **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.

#### Raw Materials and Energy Requirements

In the first half of 2011, prices of the main raw materials used by CSN continuously increased due to unbalanced supply and demand. In the second half of 2011, prices decreased, mainly due to the worsening of the European crisis.

In the first nine months of 2012, prices of the main raw materials used by CSN continued to fall due to the global crisis in the steel market caused mainly by the decline in China's growth rates and the European crisis. In the fourth quarter of 2012, prices increased, mainly due to the restocking of Chinese mills in preparation for the winter and Chinese holidays.

In 2013, coal and coke prices continued decreasing until the third quarter, when the prices remained flat.

These commodity segments are highly concentrated in the hands of a few global players and there can be no assurance that price increases will not be imposed on steel producers in the future.

#### Iron Ore

We are able to obtain all of our iron ore requirements from our Casa de Pedra mine located in the State of Minas Gerais. For a description of our iron ore segment see "– Our Mining Segment."

## Coal

In 2013, our metallurgical coal consumption totaled 2.1 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 2013 totaled 0.6 million tons, all imported. The sources of the hard coking coal consumed in our plants in 2013 were as follows: USA (53.2%), Australia (41.7%) and Canada (5.1%) and for PCI: Russia (69.2%), Australia (25.9%). It is important to mention that Russian's participation increased when compared to 2012 due to the better cost benefit offered by its coal, which ended up reducing the average PCI price purchased during 2013.

During 2013, CSN's coking coal and PCI coal costs decreased when compared to 2012. The quarterly benchmark price for metallurgical coal began its drop and ended the year at its lowest price (U.S.\$143.00) since 2010. The deals for the first quarter of 2014 are U.S.\$9.00/mt lower than for the fourth quarter of 2013. The previous lowest settlement amout had been for the fiscal year 2009-10, when it was priced at U.S.\$129.00/mt.

#### Coke

In 2013, in addition to the approximately 1.1 million tons of coke we produced, we also consumed 700,830 tons of coke bought from third parties in China, Colombia and Brazil, an increase of 3.6% as compared to our consumption in 2012, due to a revamp in our coke plants, which will last through the next few years. The demand for coke has been increasing significantly since 2002 because China, a major player in the sea-borne trade, has increased its internal consumption and adopted restrictive export quotas. In addition, India has become a major consumer of coke, considerably increasing its imports in the past years. Due to logistical reasons, China supplies most of India's coke and this increase in consumption tightened even more the worldwide supply-demand balance of metallurgical coke.

In 2013, Chinese coke prices continued decreasing until the third quarter, when the prices remained flat.

# Limestone and Dolomite

Our Bocaina mine is located in Arcos, in the State of Minas Gerais, and has been supplying, since the early '70s, 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 biggest and best reserves of limestone in the world, which is used in the production of various products, including cement.

The annual production of limestone and dolomite for our steelworks is approximately 2.4 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 sintering: used in the production of "sinter", in our steelworks. The sinter is composed of fine ores, solid fuel and flux, which enable semi-melting and sintering ore. The sinter is used in blast furnaces as a source of iron for the production of pig iron.

Beginning in 2009, with our entry into the cement market, the mine in Arcos also became responsible for supplying limestone for cement manufacturing in Volta Redonda.

## 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 38, 24 and 36 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 2013, we used 673,084 tons of oxygen to produce 4.5 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 94% of the water used in the steelmaking process is recirculated and the balance, after 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\$3.3 million.

# Electricity

Steelmaking also requires significant amounts of electricity to power rolling mills, production lines, hot metal processing, coking plants and auxiliary units. In 2013, our Presidente Vargas Steelworks consumed approximately 3.0 million MWh of electric energy or 636 kilowatt hours per ton of crude steel. This level means we are one of the largest consumers of electricity in Brazil, accounting for approximately 8% of the overall consumption of electricity in the State of Rio de Janeiro.

Our main source of electricity is our 235.2 MW thermoelectric co-generation power plant at the Presidente Vargas Steelworks, besides the Itá and Igarapava hydroelectric facilities, from which we have ensured energy of 167 MW and 23 MW, respectively. In addition, 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.

# 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 2013, the Presidente Vargas Steelworks consumed 480,934 dam<sup>3</sup> 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 2012, 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 2013, our consumption totaled 43,622 kiloliters of diesel oil, for which we paid U.S.\$35.88 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 2013 we consumed 613,000 tons of third party slabs.

Our main raw materials suppliers are set forth below:

Main Suppliers	<b>Raw Material</b>
Açominas and CSA	Slabs
BHP Billiton, Jim Walter Resources, Alpha Natural Resources,	
Rio Tinto and Marubeni	Coal
CI Milpa and ThyssenKrupp	Coke
RBA and Alubar	Aluminum
Votorantim Metais <sup>(1)</sup>	Zinc
White Solder, ERSA and Melt Metais e Ligas SA	Tin
Sotreq, Ecolab Quimica, Metso, Continental, MB Komatsu,	
Nortel, Deva Veiculos and MTU do Brasil	Spare parts
Magnesita, RHI, Vesuvius and Saint Gobain	Refractory bricks
Daido, Ipiranga and Quaker	Lubricants

(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, three continuous galvanizing lines, four continuous annealing lines exclusively for tin mill products and six electrolytic tinning lines.

Our major operational units and corresponding effective capacities as of December 31, 2013, including CSN LLC and Lusosider, are set forth in the following chart:

#### **Effective Capacity**

	Tons per year	Equipment in operation
Process:		
Coking plant	1,680,000	3 batteries
Sintering plant	6,930,000	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	1,030,000	6 lines

#### Downstream Facilities

#### CSN Paraná

Our CSN Paraná branch produces and supplies plain regular galvanized, *Galvalume*® and pre-painted steel products for the 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, and 220,000 tons of pickled hot-rolled coils in excess of the coils required for the coating process.

#### Metalic

We have a 99.99% ownership interest in Cia. Metalic Nordeste, or Metalic. Metalic is one of the few two-piece steel can producers in all the Americas. It has approximately 12% of the packaging market for carbonated drinks in the Northeastern regions of Brazil. Currently, we are Metalic's only supplier of the steel used to make two-piece cans. The development of drawn-and-wall-ironed steel for the production of two-piece cans is an important achievement in the production process at the Presidente Vargas Steelworks.

#### 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. On December 30, 2008, we merged one

of our subsidiaries, Indústria Nacional de Aços Laminados S.A., or INAL, into Prada. INAL was a distributor of laminated steel founded in 1957 and, after the merger, it became a branch of Prada responsible for distribution of Prada's products, or Prada Distribuição.

Prada Distribuição is one of the leader in the Brazilian distribution market, with 460,000 tons per year of installed processing capacity. Prada Distribuição has one steel service centers and six distribution centers strategically located in the Southeast region Brazil. The main 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-rolled 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—Anti-Dumping Proceedings—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 producer of hot-dip galvanized products and cold-rolled located in Seixal, near Lisbon, Portugal. Lusosider produces approximately 240,000 tons of galvanized products and 50,000 tons of cold-rolled per year. Its main customers include service centers and tube making industries.

# CSN Distribuição

We have 2 service centers, one located in the city of Camaçari, in the State of Bahia and one in the city of Jaboatão dos Guararapes, state of Pernambuco, to support sales in the Northeastern and North regions. There is also a Distribution Center in the city of Canoas, state of Rio Grande do Sul, to support sales in the South region of Brazil.

# Long Steel SWT

The acquisition in February 2012 of SWT, located in Unterwellenborn, Germany, marks 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.

The following chart reflects our production cycle in general terms.

#### **Production Process**

Scrap arrives at the mill by rail or road. Two gantry cranes are used to transfer the scrap to a stockyard. Two remote-controlled diesel-hydraulically driven transfer wagons carry the recycled steel in containers, which also function as charging vessels to the melting shop.

The electric arc of the DC-furnace is generated between a graphite electrode and the bottom of the furnace, which functions as the anode. This energy, supplemented by natural gas/oxygen burners, is used to convert this material into molten steel.

After the smelting process, the molten metal is tapped into the ladle in a wagon, which is then positioned under the ladle furnace. The purpose of this process is to achieve the desired composition, by the addition of alloys, and the necessary final temperature of the steel. The ladle is then transported to the casting shop with the transport wagon and is elevated onto the turret that rotates it into the casting position. The tundish distributes the steel to four strands of water-cooled copper moulds that provide the desired beam blank shape. As soon as the strands pass through the moulds they undergo an intensive cooling process. After solidification is complete, the strands pass through guides which transport and straighten the strands out of the casting arc into the horizontal plane, where they are then cut into pieces of the required length with automatic flame-cutting torches. A transfer manipulator passes the beam blanks to the roller table of the rolling mill.

The rolling mill provides facilities for both duo and universal rolling processes. In contrast to the continuous operation where the sections are rolled in strands arranged one after the other, in this reversing mill the section bar is run forwards and backwards in several passes through rolls that either have "grooves" or function according to the universal rolling principle.

The three stand assemblies in the rolling mill include, a break down stand coupled with a cropping saw, a tandem group and a finishing group. After having passed the finishing strand, the dimensional accuracy of the rolled section is measured using laser technology.

The next stage is the finishing department, where the sections, which can be up to 100m long, cool down on a walking beam cooling bed, before being straightened. The sections are then cut on a cold saw plant to lengths between 6m and 28m, as requested by customers.

## **Production Output**

#### **Certain Operating Statistics**

	2013	2012
	(In thousan	ds of tons)
Production of:		
Beam Blank	813	885*
Long Steel (Finished Products)	765	827*

\*2012 operating figures cover SWT's production during the full year of 2012. As we have consolidated SWT's results as of February 2012, its 2012 production after this date was of 812 thousand tons of beam blank and 755 thousand tons of long steel (finished products).

#### **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

During 2010 and 2011, prices for scrap continuously increased due to unbalanced supply and demand in Europe and increasing globalization of scrap trading worldwide. Prices in the European market were particularly affected by prices in Turkey and Asia. In 2013, the scrap average price decreased significantly until the middle of the year and after that the prices increased slightly. In 2013, our scrap consumption totaled approximately 919 million tons and accounted for nearly 64 % of our production cost. We are able to obtain 80% 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 and foaming coal we have to buy these materials from traders. 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.

**Raw Material** 

#### 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 450 GWh of electric energy and an equal amount 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**

Scholz, TSRScrapVerbundElectric EnergyE.on RuhrgasNatural gasRHIRefractorySGL, Graftec, NCKElectrodesSiemens, Schneider, VoithSpare partsIrle, Walzengießerei CoswigRolls

# Facilities

SWT possesses a 28km internal railway system, and the logistics infrastructure to ensure supply of scrap and delivery of finished products. 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**

	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

# Long Steel – Volta Redonda

### **Plant Characteristics**

We completed a new plant for production of long steel products in Volta Redonda and started assisted 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 – wire rod and rebar. We expect this plant to reach 500,000 t/year output when full operational, providing the domestic market with products for civil construction.

Melt Shop

Designed for annual output 383,000 t/year, this unit has main process equipment which includes one 50t electric arc furnace, one 50t ladle furnace, one continuous casting machine for billets with three strands and auxiliary equipment.

### Rolling Mill

Designed for 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 Process - Rebar and Wire-rod

#### Steelmaking

The process of steelmaking begins with the arrival of scrap metal at our facilities by wagons and trucks. After being benefited, the scrap metal is destined for scrap bucket preparation in the yard. The scrap buckets are prepared based on the type of steel that will be manufactured in the melting shop.

The scrap bucket mixed with pig iron is, with the help of a crane, brought to the electric arc furnace. After loading, the furnace begins the melting process, which involves the creation of steel through use of electrodes, burners and oxygen injectors. In the furnace, the scrap metal becomes liquid steel after reaching the appropriate temperature and is tapped into a previously prepared ladle.

During tapping, alloys are added to the liquid steel and the mixture is placed in a ladle furnace. In the ladle furnace, chemical composition corrections are made to the mixture. The ladle, containing the liquid steel is then brought to the continuous casting machine.

The liquid steel is then poured into a tundish where it is cast into the molds, beginning the process of solidification and transformation of steel in billets. After being solidified, the billets are cut into particular sizes according to the intended application.

#### Rolling Mill

The rolling mill is comprised of a blooming mill, a roughing mill, an intermediate mill, a pre-finishing mill and a wire finishing mill in order to reduce the steel thickness and make the thickness uniform. When using 250x250mm cut slabs, the slabs will be moved by a chain shifting device, which has heat insulation, that brings the slabs to the delivery table in the blooming mill before they are rolled into transfer bar of 150x150mm and then cropped and divided by a 250t hot shear. Afterwards the transfer bars are sent by the heat retaining table and chain shifting device

to the roughing mill. Then, in line with product requirements, for straight pieces the transfer bar will be fed into roughing mill, intermediate rolling mill and pre-finishing mills to be rolled continuously into straight thread rebar or round bar. In order too produce wires, the rolling piece leaving the pre-finishing mill will be fed into high-speed wire finishing mill where it is rolled into the desired wire coils.

For feed stock of a 150x150mm billet supplied by EAF, the billet will be sent straight to the roughing mill, intermediate rolling mill, pre-finishing mill and finishing wire mill through the heat retaining table and rolled into the desired size according to order requirements.

The production flow chart is showed below:

## **Raw Materials and Suppliers**

#### Raw Materials and Energy Requirements

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.

#### Scrap

Scrap prices in the domestic market may be affected by prices in North America, Europe and Asia. As we started produce long steel in the end of 2013, our consumption of scrap was negligible. We are generally able to obtain 100% of our scrap needs from within a 350 km vicinity.

#### Ferroalloys, lime and foaming coal

Because we do not own any sources of pig iron, alloys and foaming coal, we have to buy these materials from domestic market suppliers. Lime is supplied by our lime production plant in Volta Redonda.

## Other raw materials

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

Water

The technology used in the construction of the Long Steel plant provides most water recirculation (the water used continues in the same process). Due to this, water consumption is not significant for the UPV.

#### Electricity and Natural Gas

Steelmaking also requires significant amounts of electricity and natural gas, for which we use the same supply as our flat steel plant. Under normal conditions, when fully operational, we expect we will consume approximately 340 GWh of electric energy and 980 TJ of natural gas.

Our main raw materials suppliers are set forth below:

Main Suppliers	Raw Material
Domestic Market	Scrap
Magnesita – Saint Gobain	Refractory
Graphitec – SGL Carbon	Electrodes
Siemens, EVG, DEM Contruzionni, Matsui Corp., Mitsubishi Corp, Sund Birsta, Italvibras,	
Ishikawajima, Hitachi, Mitsubishi Electric, Lankhorst	Spare parts
Gerdau and San Agostino	Rolls

### **Our Mining Segment**

Our mining activities are one of the largest in Brazil and are mainly driven by the exploration of one of the richest Brazilian 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 of Minas Gerais, in Brazil, Austria, Madeira Islands, Portugal and Hong Kong.

#### **Our Mines**

Location, Access and Operation

#### Casa de Pedra

Casa de Pedra mine is an open pit mine located next to 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 has been incorporated to CSN in 1941, but has been in operation since 1913.

Our iron ore at Casa de Pedra is currently excavated by a fleet composed of P&H 1900AL electric shovels, Komatsu PC5500 hydraulic shovels, wheel loaders (Caterpillar 994F, Caterpillar 994H, Komatsu WA1200 and LeTourneau 1850) and then hauled by a fleet of Terex Unit Rig MT3300AC (150 tons), Caterpillar 793D (240 tons) and Terex Unit Rig MT4400AC (240 tons). This fleet has a total mine handling installed annual capacity of approximately 100

million tons.

The ore is then processed in our treatment facilities, which have an installed capacity of 21 million tons of products per year. In Casa de Pedra, we use electrical power provided by hydroelectric plants.

Casa de Pedra mine is wholly-owned by us and supplies all of our iron ore needs, producing lump ore, sinter feed and pellet feed fines with high iron content. The maps below illustrate the location of our Casa de Pedra mine:

### Namisa

We own additional iron ore assets through Namisa, our 60% jointly-controlled investee, which acquired CFM (Companhia de Fomento Mineral e Participações) in July 2007. CFM was formed in 1996 with the purpose of utilizing and enhancing the ore treatment facilities of the Itacolomy mines, for the beneficiation of crude ore extracted from the Engenho mine.

The Engenho mine is also an open pit mine located at 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. The map below illustrates the location of our Engenho mine:

The Engenho mine was incorporated into the Namisa mine in 2007, but its operations started in 1950. The ore in this mine is excavated by a fleet of wheel loaders (Komatsu WA470-6) and excavators (Komatsu PC600LC-8) and then hauled by a fleet of Iveco Trakker 410T42 trucks.

Then the ore is processed in Pires treatment facilities, which have an installed capacity of 7 million tons of products per year. In the Engenho mine and Pires Complex, we use electrical power provided by hydroelectric plants.

The Fernandinho mine, which we also hold through Namisa, is located in the city of Itabirito, in the State of Minas Gerais. This city is located in the Middle-East 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 map below illustrates the location of our Fernandinho mine:

The Fernandinho mine was incorporated to Namisa in 2007 but its operation also started in 1950. The ore in this mine is excavated by a fleet of wheel loaders (Komatsu WA470-6) and excavators (Komatsu PC350LC-8) and then hauled by a fleet of Iveco Trakker 410T42 and Iveco Trakker 380T42 trucks. Then the ore is processed in Fernandinho treatment facilities, which have an installed capacity of 750 thousand tons of products per year. In the Fernandinho mine, we use electrical power provided by hydroelectric plants.

The map below shows the location of Casa de Pedra, Engenho and Fernandinho Mines:

#### 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. The Bocaine mine 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.

The ore in this mine is excavated by a fleet wheel loaders (Caterpillar 990 and Caterpillar 950 Gll) and excavators (Komatsu PC350LC-8) and then hauled by a fleet of Iveco Trakker 8 x 4 and Caterpillar 775 trucks.

This mining facility has an installed annual production capacity of approximately 4.0 million tons. We use electrical power provided by a hydroelectric plant in Arcos. This mining facility has sufficient limestone and dolomite reserves to adequately supply our steel production, at current levels, for 37 years.

The Bocaina mine is wholly-owned by us. The map below shows the location of this mine:

## Tin

We own a tin mine in Itapuã do Oeste, in the State of Rondônia, through our subsidiary ERSA. This facility has an installed annual production capacity of approximately 3,600 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. Except for Namisa's mines, in which we have a 60% ownership interest, we own 100% of each of our 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 (our property), Pires Beneficiation Plant and Fernandinho Mine (both Namisa's property).

# Casa de Pedra

Our mining rights for Casa de Pedra mine 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 the type of each of our mines, period of operation, projected exhaustion dates and percentage of our interest:

Mine Iron:	Туре	Operating Since	Projected exhaustion date	CSN % interest
Casa de Pedra				
(Congonhas,				
Minas Gerais)	Open pit	1913	2041	100
Engenho (Congonhas,		2007 (Start of operation		
Minas Gerais)	Open pit	by Namisa)	2041	60
Fernandinho (Itabirito,		2007 (Start of operation		
Minas Gerais)	Open pit	by Namisa)	2030	60
Limestone and Dolomite:				
Bocaina (Arcos, Minas				
Gerais)	Open pit	1946	2050	100
Tin	openpi	1710	2000	100
Santa Barbara (Itapuã				
do Oeste, Rondonia)	Open pit	1950	2054	100

The following table 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. In the case of the Engenho and Fernandinho mines, where we own 60% of interests, the mineralized materials disclosed are for the entire mine, and not just for our proportional interest in the mine.

According to the report "Audit of Ore Reserves for CSN Casa de Pedra Iron Mine", prepared by Golder Associates in May 2007, our reserve estimation process is subject to some smoothing, but does not reflect losses for mine dilution and mining recovery. We intend to perform studies regarding those losses during the preparation process for the new reserve audit. Likewise, Namisa's estimation process for the Engenho and Fernandinho mines does not reflect losses for mine dilution and mining recovery.

Presently we only have audited reserves for our Casa de Pedra mine. In 2013 we conducted drilling campaigns in Casa de Pedra, Engenho and Fernandinho and we expect to have new Audit Reports for these three mines by the end of 2014. We do not have resources/reserves studies for our Bocaina mine and only disclose mineralized materials for this property. 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 our Bocaina and Santa Barbara properties in light of their reduced materiality to our business. We do not have audited data for resources estimates, only for reserves estimates.

Mine Name	Ore T	Proven a onnage <sup>(3)</sup>	and Probable I	Reserves(1) Rock	Recoverable Product <sup>(5)</sup> (millions of	Quantity Estimates for Mineralized Material <sup>(2)</sup> Tonnage (millions of
and Location	(million Proven <sup>(6)</sup>	ns of tons) Probable <sup>(7)</sup>	Grade(4)	Туре	tons)	tons)
Iron:	1 i o von	11004010				
Casa de Pedra(Congonhas,				Hematite (21%)		
,				Itabirite		
Minas Gerais) Engenho	933	514	47.79% Fe	(79%)	819	8,202
(Congonhas, Minas				Itabirite		
Gerais) Fernandinho			46.07%	(100%)		850
				Itabirite		
(Itabirito, Minas Gerais)			40.21%	(100%)		578
<b>Total Iron:</b> (Congonhas, Minas Gerais)	933	514			819	9,630
Limestone and Dolomite:	Proven <sup>(6)</sup>	Probable <sup>(7)</sup>				
				Limestone		
Bocaina			41.3%CaO	(86%) Delemite		
(Arcos, Minas Gerais)			5.99%MgO	Dolomite (14%)		1,190

#### MINERAL RESERVES AND QUANTITY ESTIMATES FOR MINERALIZED MATERIAL – As of December 31, 2013

(2) Mineralization that has been sufficiently sampled at close enough intervals to reasonably assume continuity between samples within the area of influence. This material does not yet qualify as a reserve.

(3) Represents ROM material.

- (4) Grade is the proportion of metal or mineral present in ore or any other host material.
- (5) Represents total product tonnage after mining and processing losses.

(6) 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

<sup>(1)</sup> 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 Engenho and Fernandinho. The reserves for the Casa de Pedra mine were audited in 2006 and we have reduced the amount of proven reserves by our annual production since then.

and mineral content of reserves are well- established.

(7) 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.

Summary of Casa de pedra Mine Ore Reserves(1)						
Proven - 2013	Probable - 2013	Total	- 2013	<b>Total - 2012</b>		
Ore Tonnage(2)	Ore Tonnage	Ore Tonnage	Grade(3)	Ore Tonnage	Grade	

## Iron:

CSN

Casa de Pedra (Congonhas, Minas Gerais)9335141.44747.49%1.47147.49%(1) Reserves means the part of a mineral deposit which could be economically and legally extracted or produced at<br/>the time of the reserve de termination. The reserves for the Casa de Pedra mine were audited in 2006 and we have<br/>reduced the amount of proven reserves by our annual production since then.9335141.44747.49%1.47147.49%

(2) Represents ROM material.

(3) Grade is the proportion of metal or mineral present in ore or any other host material

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 2013, the metallurgical recovery factor obtained by Casa de Pedra concentration plant was 72.4%. That same factor was 66.3% for the Engenho plant and 58.6% for the Fernandinho plant.

The cutoff grade is the minimum ore percentage that determines which material will be fed in the processing plant. We also plan to perform studies to determine the cutoff grade value during the preparation process for the new audit in Casa de Pedra. In the audit performed in 2006, the Benefit Function considered the lithologies to separate iron from waste. The cutoff grade value for Namisa is also yet to be determined.

The prices used in the 2006 audit for the estimation of Casa de Pedra reserves are shown in the following table (Golder's Final Report for the Audit of Ore Reserves for CSN Casa de Pedra Iron Mine, 2007). As shown, the product price we assumed to estimate our reserves is conservative in comparison to the actual three-year average prices.

### PRICE FOR THE THREE YEARS PRIOR TO THE AUDIT

	Price for the three years prior to the audit			Average	Product Price
		(U.S.\$/t)		(U.S.\$/t)	(U.S.\$/t)
	2004	2005	2006	From 2004 to 2006	Assumption
Lump	28.80	49.40	58.79	45.66	25.26
"Hematitinha"	12.08	28.34	35.75	25.39	18.14
Sinter Feed	21.91	37.58	44.73	34.74	20.73
Pellet Feed Fines	21.40	36.69	43.66	33.92	20.44

Namisa does not yet have a reserve audit; therefore, we have not established prices to estimate reserves for its mines.

### Casa de Pedra

In 2006, we concluded an extensive, multi-year study of our iron ore reserves at Casa de Pedra. The study consisted of three phases. Phase one, which was completed in 1999, covered the ore bodies that are currently being mined or are close to the current operating open pits. Phase two, which was completed in early 2003, covered the other iron ore deposits at Casa de Pedra site. Phase three started in 2005 and involved a complete revaluation of our mineral reserves at Casa de Pedra.

We conducted extensive work throughout 2006 to document and classify all information related to both the current and future operations of the Casa de Pedra mine. In 2006, we hired Golder Associates S.A., or Golder, to undertake an independent analysis of the Casa de Pedra iron ore reserves. Golder carried out a full analysis of all available information and has independently validated our reported reserves.

Golder accepts as appropriate the estimates regarding proven and probable reserves made by us, totaling 1,631 million tons of iron ore (as of December 31, 2006) at a grade of 47.79% Fe and 26.63% SiO2. This new estimate of our iron ore reserves at Casa de Pedra is significantly larger than our estimate of 444 million tons, contained in an appraisal report prepared in 2003.

Over the course of the Casa de Pedra Mine's life we have executed different drilling campaigns and, in total, we have drilled 91,515 meters until 2011. The last completed campaign started in May 2010 and ended in April 2011. In the course of that campaign, we drilled 11,069 meters. We are extending our drilling campaign by an additional 30,000 meters to increase and improve our knowledge about the iron ore deposits at Casa de Pedra. This campaign includes the programming of laboratory tests for approximately 1,800 samples. It started in October 2012 and by December 2013 we had drilled a total of 18,604 meters. We will use this new campaign and the 2010-2011 campaign for the new reserve audit. The first stage of the new reserve audit will be conducted in July 2014 and we expect to have the new Audit Report ready by the end of 2014. The second stage of the drilling campaign is expected to be concluded by November 2014.

### Namisa

An initial study was conducted at Fernandinho and Engenho mines to define the geological reserves and final pits. In 2008 and 2009, we extended our drilling campaign with an additional 5,179 meters at Engenho mine and 2,771 meters at Fernandinho mine (totaling a campaign of 7,950 meters) to increase and improve our knowledge about the iron ore deposits at these mines. In November 2012 we started a new drilling campaign with an additional 10,000 meters in the Engenho Mine. By December 2013, we had drilled a total of 5,652 meters and we will use this campaign and the ones from 2008-2009 to conduct the first stage of the new reserve audit in July 2014. Finally, we also started a drilling campaign of an additional 10,000 meters in the Fernandinho Mine and from January 2013 to December 2013 we have drilled 8,193 meters. We will use this campaign and the ones from 2008-2009 to conduct the first stage of the new freserves will be incorporated into our mineral deposits in the new Audit Report by the end of 2014. The second stage of the drilling campaigns both to Engenho and Fernandinho is expected to be concluded by November 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 100.0 million tons and 21 million tons, respectively.

#### Namisa

Namisa has two beneficiation plants: one is the Pires Plant, which receives material from our Engenho mine (located at the northern border of the Casa de Pedra mine) and the other is the Fernandinho Plant, which receives material from our Fernandinho mine (located in the city of Itabirito). The beneficiation plant at Pires also processes crude ore acquired from other companies, which along with its own ROM, generates final products such as: lump ore, small lump ore (hematitinha), sinter feed and concentrates. The beneficiation plant at Fernandinho generates sinter feed and fines as final products.

Namisa complements our strategy to be a world leading producer of high quality iron ore. Namisa remains fully integrated with our railway and port logistics corridor, through long-term contracts, which provide sufficient railway and port logistics capacity for Namisa's current and future production. Namisa is a leading company in iron ore mining and trading, with mining and processing operations in the State of Minas Gerais. Trading iron ore is obtained from small mining companies in the neighborhood and other trading companies.

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

Casa de Pedra (Mt)	20.1	19.8	15.4
Grade (%)	65.3%	64.4%	63.8%
Pires <sup>(2)</sup> (Mt)	5.7	4.1	3.4
Grade (%)	62.3%	62.2%	61.6%
Fernandinho <sup>(2)</sup> (Mt)	0.7	0.5	0.6
Grade (%)	58.6%	57.4%	59.4%

(1) In addition to its own production, Namisa also purchases iron ore from third parties. Third party purchase volumes totaled 7.5 million tons, 9.3 million tons and 11.9 million tons in 2011, 2012 and 2013, respectively.

(2) Production information considers 100% of the mines, not just our 60% interest.

Consolidated Sales (Mt)	23.8	20.2	21.5
Consolidated Net Revenue Per Unit (U.S.\$/t)	135	97	98

(1) Consolidated sales consider our proportional 60% interest in Namisa.

## 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 railway 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, 2013, we held 33.27% of MRS's total capital. 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. 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 23% of the Brazilian Southeastern railway system's total volume. We are jointly and severally liable, along with the other main MRS's 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. Resolution No. 4,042/2013 issued by the transportation regulatory agency (*Agência Nacional de Transportes Terrestres*), or ANTT, authorized the partial spin-off of TLSA and, as a result, the Northeastern railway system is currently divided into the Railway System I, operated by FTL, and the Railway System II, operated by TLSA.

As of December 31, 2013, we held 88.41% of the capital stock of FTL, which has a concession to operate the Railway System I (which encompasses the stretches between the cities of São Luís – Mucuripe, Arrojado – Recife, Itabaiana – Cabedelo, Paula Cavalcante – Macau and Propiá – Jorge Lins) of Brazil's Northeastern railway system until 2027, renewable for an additional 30 years. The Railway System I consists of 4,238 km of railways. As of December 31, 2013, R\$98 million in concession payments was outstanding over the remaining 15 years of the concession.

As of December 31, 2013, we held 77.30% of the capital stock of TLSA, which has a concession to operate the Railway System II (which encompasses the stretches between Missão Velha – Salgueiro, Salgueiro – Trindade, Trindade – Eliseu Martins, Salgueiro – Porto de Suape and Missão Velha – Porto de Pecém) of Brazil's Northeastern railway system. Once concluded, the Railway System II will have an extension of 1,728 km of tracks that will connect the interior of Northeast Brazil to Pecém and Suape Ports. This concession was granted in 1997 and recently had its original term extended until the earlier of 2057 or the date when TLSA reaches a rate of annual return of 6.75% of its total investment. For more information, see "Item 5E. Off-Balance Sheet Arrangements."

## Port Facilities

#### Solid Bulks Terminal

We hold a wide and modern logistics structure. As part of this structure, we own and operate TECAR through a lease agreement expiring in 2022, renewable for another 25 years at our option.

TECAR is connected to road and rail system 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 732,911 m<sup>2</sup>, 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, internal road system, bulk storage yards, 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 concession, we undertook to load and unload at least 3.0 million tons of bulk cargo annually. Among the approved investments that we had previously announced was the development and expansion of the solid bulks terminal at Itaguaí, which pahse 1 expansion was completed in 2013 to handle up to 45 million tons of iron ore per year. 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, 2013, approximately U.S.\$122 million of the cost of the concession remained payable over the next 13 years of the lease. 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 represents more than 50% of the Brazilian gross domestic product, or GDP, according to the Brazilian Geography and Statistics Institute (*Instituto Brasileiro de Geografia e Estatística*). The Brazilian Federal Port Agency has spent more than U.S.\$48 million in the past few years in port infrastructure projects such as expanding the maritime access channel and increasing its depth. In addition, significant investments were made by the Brazilian federal government in adding two extra lanes to the Rio-Santos road, and are being made in constructing the Rio de Janeiro Metropolitan Bypass (ongoing project), a beltway that will cross the Rio de Janeiro metropolitan area. These factors, combined with favorable natural conditions, like 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, resulting in the terminal being a major hub port in Brazil.

Investments made from 2007 to 2013, mainly in two Super Post Panamax Portainers and two Rubber Tired Gantry, or RTG cranes, 6 new Reach Stackers and 8 forklifts, among others, have shown to be successful. These investments,

along with a focused marketing and sales strategy, enabled the terminal to rank first in market share among the three terminals of the state of Rio de Janeiro in 2013, with 42% of the total moves in those terminals.

We have invested in infrastructure and equipment in Sepetiba TECON, such as the Berth 301 Equalization and the acquisition of two new Super Post Panamax Portainers and four new RTG cranes to yard operations, that were delivered in the first quarter of 2014. We have carried out the dredging of Sepetiba Tecon's Berths 302/303 and access channel to 15.5m depth. We expect these investments will increase TECON's capacity from 320,000 containers (or 480,000 TEUs) to 440,000 containers (or 670,000 TEUs) per year. In 2013, the terminal continued to grow, reaching 257,045 units handled, an increase of almost 19% as compared to 2012, when we handled 216,460 units. We also exported 116,830 tons of steel products, a difference of 40% compared to 83,466 tons in 2012.

## **Our Cement Segment**

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

### Production

The production process in our cement factory in Volta Redonda begins with the influx of raw materials: clinker, limestone, gypsum and slag. We consume clinker produced in our clinker plan in Arcos and eventually we will import clinker to supply demand. Limestone comes from Arcos by rail. Clinker is stored in a silo (capacity: 45,000 tons) and limestone in a warehouse (capacity: 10,000 tons). Slag is a by-product of iron and steel, produced in the blast furnace, and is also stored in the warehouse (capacity: 20,000 tons), arriving at the plant by road. CSN uses natural gypsum, from Ouricuri, in the state of Pernambuco, which arrives at the plant by truck and is stored in the warehouse (capacity: 10,000 tons).

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. There are two grinding lines and each mill has a nominal capacity of 170 tons/h. Annual plant capacity is 2.4 million tons of cement. The mill has a hydraulic roller system, which uses pressure to grind the layer of material on the turntable. Hot gas, derived from the combustion of natural gas or petroleum coke, is used in the mills to dry materials.

The type of cement we produce is CP III-40 RS (Sulfator resistant), which is then taken through a bucket elevator to be stored in silos. The plant has four silos, two of them with 10,000 tons of capacity and two with 5,000 tons of capacity. Cement can be shipped in bagged and bulk forms. We have two baggers with 12 filling nozzles (nominal capacity of 3600 bags/hour) and two palletizers for bagging cement.

## **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.

## Itá Hydroelectric Facility

Tractebel and CSN 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 and renewable for an equal term, 60.5% of the Itá hydroelectric facility on the Uruguay river in Southern Brazil. Companhia de Cimento Itambé, or Itambé, owns the remaining 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 U.S.\$860 million. The long-term financing for the project was closed in March 2001 and consisted of U.S.\$78 million in debentures issued by ITASA, a U.S.\$144 million loan from private banks and U.S.\$116 million of direct financing from BNDES, all of which are due by 2013. The sponsors of the project have invested approximately U.S.\$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 Vale, Companhia Mineira de Metais, Votorantim Metais Zinco, AngloGold Ashanti Mineração Ltda., and Companhia Energética de Minas Gerais, or CEMIG. The plant has an installed capacity of 210 MW, corresponding to 136 MW of firm guaranteed output as of December 31, 2012. We have been using part of our 23 MW take from Igarapava to supply energy to the Casa de Pedra and Arcos mines.

### **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.

In 2013, about 66% of our domestic sales were made through our own sales force directly to customers. The remaining sales were to independent distributors and Prada Distribuição for subsequent resale to smaller clients.

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 2013, we sold steel products to customers in Brazil as well as to customers in 32 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 Latin America and Europe, representing 36% and 28%, respectively, of our export sales volume in 2013.

In North America, we take advantage of our subsidiary CSN LLC, which acts as a commercial channel for our products. In order to gain a cost advantage among our U.S. competitors, CSN is able to export 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 Steel Products by Destination (In thousands of metric tons and millions of $R$ \$)												
2013 2012 2011												
			Net				Net				Net	
		% of	Operating	% of		% of	Operating	% of		% of	Operating	% of
	Tons	Total	Revenues <sup>(2)</sup>	Total	Tons	Total	Revenues <sup>(2)</sup>	Total	Tons	Total	Revenues <sup>(2)</sup>	Total
Brazil	4,650	76.0%	9,529	78.5%	4,495	77.1%	8,338	78.5%	4,216	86.1%	8,033	86.8%
Export	1,467	24.0%	2,603	21.5%	1,334	22.9%	2,278	21.5%	680	13.9%	1,219	13.2%
Total	6,117	100.0%	12,132	100%	5,829	100.0%	10,616	100.0%	4,896	100.0%	9,252	100.0%
Exports by	7											
Region												
Asia	30	2.1%	45	1.7%	17	1.3%	31	1.3%	21	0.4%	31	0.3%
North												
America <sup>(1)</sup>	298	20.3%	597	22.9%	289	21.7%	552	24.2%	270	5.5%	473	5.1%
Latin												
America	59	4.0%	148	5.7%	81	6.1%	199	8.8%	58	1.2%	144	1.6%
Europe	1,071	73.0%	1,793	68.9%	942	70.6%	1,484	65.2%	312	6.4%	545	5.9%
All Others	9	0.6%	21	0.8%	5	0.3%	12	0.5%	19	0.4%	27	0.3%

(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 market shares for steel sales in Brazil of hot-rolled, cold-rolled, galvanized and tin mill products for 2012, 2011 and 2010. Market share information for 2013 was not yet available as of the date of this annual report.

CSN Domestic Market Share	2012	2011	2010
Hot-Rolled Products	61.9%	55.8%	47.1%
Cold-Rolled Products	29.7%	28.2%	20.7%
Galvanized Products	36.9%	35.5%	32.8%
Tin Mill Products	86.9%	82.5%	80.8%

Source: IABr and CSN data

### 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:

### Sales by Industrial Segment in Brazil

	2013	2012	2011
	(In percentages	of total domestic	volume shipped)
Distribution Network	44%	44%	41%
Packaging	8%	7%	9%
Automotive	17%	15%	16%
Home Appliances	7%	7%	7%
OEM	5%	6%	6%
Construction	20%	21%	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 2013 Compared to Year 2012—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 situated in Germany and 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. We expect this plant to reach 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 and overseas. In Europe and Asia, our offices also include our technical assistance management. These three marketing units allow us to stay in close contact 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 targets are the Brazilian, European, Middle Eastern and Asian markets. 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, civil 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 to help determine the mix that best suits each particular customer.

		2013			CSN – Sales of Iron Ore Products by Destination (In thousands of metric tons and millions of R\$) 2012						2011	
			Net				Net				Ne	
		% of	Operating	% of		% of	Operating	% of		% of	Opera	
	Tons	Total	Revenues	Total	Tons	Total	Revenues	Total	Tons	Total	Reven	
Brazil	157,041	0.7%	679,974	13%	478,626	2.4%	713,445	15.9%	1,457,381	6.1%	834	
Export	21,377,106	99.3%	4,616,754	87%	19,702,695	97.6%	3,772,102	84.1%	22,392,132	93.9%	5,107	
Total	21,534,147	100%	5,296,728	100%	20,181,321	100%	4,485,549	100%	23,849,513	100%	5,941	
Exports by												
Asia	16,956,231	79.3%	3.610.625	78%	15,230,579	77.3%	2,964,154	78.6%	18,815,484	84.0%	4,250	
North America Europe	4,420,875	- 20.7%	1.006.129	- 22%	94,942 4,377,173	0.5% 22.2%	16,589 791,361	0.4% 21%	- 3,576,648	0.0% 16.0%	857	

(\*) 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%).

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 2013, CSN's iron ore sales reached 21.5 million tons, a 6.7% increase compared to 2012. According to our consolidated financial statements, total mining net revenue increased 18% over the past year, mainly due to higher volumes and iron ore prices. The share of mining revenue in CSN's total net revenue increased from 29% in 2012 to 31% in 2013.

In 2013, 79% of our iron ore export sales went to the Asian market, mainly China and 21% were sold in the European market. Of our total sales, 84% were sinter feed, 7% pellet feed, 6% lump ore and 3% 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.

For further information on iron ore sales, see "Item 5A. Operating Results - Results of Operations - Year 2012 Compared to Year 2011 – Net Operating Revenues."

## Cement

We sell cement type CPIII 40 RS in bagged and bulk forms and import CPII F. We operate in the markets of Rio de Janeiro, Minas Gerais, São Paulo and the northeast region (with imported cement). With the purpose of expanding and increasing competitiveness, we own six distribution centers located in strategic points: three in São Paulo, two in Rio de Janeiro and one in Minas Gerais. Supply to these distribution centers is made through railways and road transport, using mainly the MRS railway.

We have a diverse client base of over 10,000 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 2013, we significantly increased our sales, reaching 2,045 thousand tons, representing a growth of 4% when compared to 2012. All our cement production is sold in the local market.

	CSN – Sales of Cement by Destination								
	(In thousands of metric tons and millions of $R$ \$)								
20	13	20	)12	20	011				
	Net		Net		Net				
	Operating		Operating		Operating				
Tons	Revenues	Tons	Revenues	Tons	Revenues				
2,045	5 415	1,972	2 388	1,755	5 333				

Brazil

### 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), carrier liability, life insurance, personal accidents, health, auto insurance, D&O, general liability, erection risks, boiler and machinery coverage, trade credit insurance, surety, 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, Casa de Pedra Mine, Paraná Branch, TECAR, Container Terminal TECON, Namisa, CSN Handel and Namisa Handel. This policy was negotiated with domestic and foreign insurers and reinsurers and is valid until June 30, 2014 for a total insured value of U.S.\$500 million (out of a total risk amount of U.S.\$15.4 billion). Under the terms of the policy, we remain responsible for the first tranche of U.S.\$300 million in losses (material damages and loss of profits).

## **Intellectual Property**

We own intellectual property rights comprising: brands, patents, industrial designs, ensuring suitable business protection and the possibility of economically exploring, through technology transfer contracts, the results of our creative production. We also maintain cooperation agreements with universities and research institutes for the exchange of technical information and reports related to processes and/or products. Our production capacity or product trading does not depend on any of these intellectual property rights or technical cooperation agreements.

## **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. Also, several foreign steel companies are significant investors in Brazilian steel mills.

The following table sets forth the production of crude steel by Brazilian companies for the years indicated<sup>(2)</sup>:

	2012			2011	2010		
	Ranking	<b>Production</b> (In million tons)	Ranking	<b>Production</b> (In million tons)	Ranking	<b>Production</b> (In million tons)	
Gerdau <sup>(1)</sup>	1	8.2	1	8.8	1	8.2	
Usiminas	2	7.2	2	6.7	2	7.3	
CSN	3	4.8	4	4.9	4	4.9	
ArcelorMittal Tubarão ArcelorMittal Aços	4	4.4	3	5.4	3	6.0	
Longos	5	3.4	5	3.5	5	3.4	
Others		6.5		5.9		3.1	
<b>Total</b> Source: IABr		34.5		35.2		32.9	
Source. IADI							

1. Data from Aços Villares have been merged into data from Gerdau.

2. Information for 2013 was not yet available as of the date of this annual report.

## Competitive Position — Global

During 2013, Brazil maintained its place as the largest producer of crude steel in Latin America, with a production output of 34.2 million tons and a 2.1% share of total world production, according to data from the World Steel Association, or WSA. In 2013, Brazil also maintained its position as the ninth largest steel producer globally, accounting for around three-quarters of total production in Latin America, approximately twice the size of Mexico's or 40% of the U.S.' steel production, according to data from the WSA. According to IABr, Brazilian exports in 2013 amounted to 8.1 million tons of finished and semi-finished steel products.

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 slowdown of European demand and the depreciation of the real against the U.S. dollar, export prices fell and domestic prices rose again. This movement was also influenced by protective government measures which raised taxes on steel imports.

### **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, and solid and hazardous waste handling and disposal. 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 we are currently in substantial 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 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, and the State Environmental Foundation, or FEAM. Specific goals and standards are established in operating permits or environmental accords issued to each company or plant. These specific operation conditions complement the standards and regulations of general applicability and are required to be observed throughout the life 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.

### **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 environmental risks monitoring and control. We operate a corporate environmental department managed under an Environmental Management System, or EMS, compliant with ISO 14001:2004 requirements. 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 the risks of environmental compliance of CSN's operations.

To further understand our potential social and environmental risks, we use mapping criteria in accordance with the Global Reporting Initiative, 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.

Finally, in response to a law enacted by the State of Rio de Janeiro in effect since 2013 requiring steel making and cement facilities to present action plans to reduce greenhouse gas emissions when renewing or applying for operational licenses, we have conducted a survey of greenhouse gas emissions at our main sites in 2012, and plan to use this information in the development of a corporate carbon management program and related strategies to reduce emissions.

Since our privatization, we have invested heavily in environmental protection and remediation programs. We had environmental expenditures (capitalized and expensed) of R\$382.0 million in 2013, of which R\$77.71 million relate to capital expenditures and R\$304.2 million relate to operational expenditures. Our environmental expenditures were R\$436.2 million in 2012 and R\$310.6 million in 2011.

Our investments in environmental projects during 2012 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.

In 2010, we signed with the Rio de Janeiro State Government a TAC that required new investments and studies to retrofit our environmental control equipment at the Presidente Vargas Steelworks. The TAC initially estimated the total amount to be disbursed in connection with implementation of the required projects thereunder to be R\$216 million. This initial estimate was updated to R\$260 million as we obtained more accurate cost estimates for completion of the projects. Although we have not yet concluded the process of obtaining updates for cost estimates for all projects under the TAC, we expect that investments required may exceed our last estimates.

Our main environmental claims as of December 31, 2012 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 Presidente Vargas Steelworks.

In July 2012, the Ministério Público Estadual do Rio de Janeiro (Environmental Public Prosecutor of the State of 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. For more information, please see "Item 8A. Consolidated Statements and Other Financial Information—Legal Proceedings."

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 seller. As of December 31, 2013, we had provisions for environmental liabilities in the total amount of R\$346.5 million, which we believe are sufficient to cover all probable losses. Such amount compares to R\$383.4 million as of December 31, 2012, and R\$312.6 million as of December 31, 2011. The decrease in our provisions for environmental liabilities in 2013 as compared to 2012 is mainly due to the compensation stated in the TAC settlement and the partial reversal of the Rio Paraiba do Sul remediation provision by the substitution of the sediments remediation technique from dredging to capping, authorized by local authorities. The changes in the provision for environmental liabilities on our financial statements are as follows:

	Amounts
	(in millions of R\$)
December 31, 2011	312.6
Landfills <sup>(1)</sup>	34.9
Decommissioned Coal Mines (Santa Catarina)	32.1
Other	6.5

Adoption of IFRS 10 and 11 <sup>(3)</sup>	-2,7
December 31, 2012	383.4
Term of Undertaking (TAC) <sup>(2)</sup>	-30.8
Other	-6.2
December 31, 2013	346.5

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

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

(3) We no longer consolidate our jointly controlled investee Namisa.

### 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, a government agency within the jurisdiction of 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 as of the 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 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. 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. Extracted minerals 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 mineral deposits existing within our property limits. Our iron ore mining activities at Engenho and Fernandinho mines are based on concessions granted by the Ministry of Mines and Energy, which grant us the right to exploit mineral resources from such mines for an indeterminate period of time lasting until the exhaustion of the mineral deposits. Our limestone and dolomite mining activities at the Bocaína 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.

### 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 hold title to all of our proved and probable reserves. In addition, we have been granted by DNPM easements in 15 mine areas located in the surrounding region, which are not currently part of Casa de Pedra mine, with the purpose to expand our operations.

In addition, we have obtained and are in compliance with all 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 annual rates are:

- 3% on bauxite, potash and manganese ore;
- 2% on iron ore, kaolin, copper, nickel, fertilizers and other minerals; and
- 1% on gold.

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 request the relevant governmental entity to use public lands when mining in such land and compensate such entities for any damages caused to such public lands, if applicable. 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 currently reviewing a bill that proposes significant changes in the Mineral Code, including 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 used to be governed primarily by Law No. 8,884/94, the *Lei de Defesa da Concorrência*, or Competition Defense Law, under which terms the Brazilian Antitrust System was composed of three agencies, namely *Secretaria de Direito Econômico (SDE)* and *Conselho Administrativo de Defesa Econômica (CADE)*, both entailed to Brazil's Ministry of Justice, and *Secretaria de Acompanhamento Econômico (SEAE)*, entailed to Brazil's Ministry of Treasury. SDE had broad authority to promote economic competition among companies in Brazil, including the ability to suspend price increases and investigate collusive behavior between companies.

A new Antitrust Law was enacted in 2011 (Law No. 12,529/11) and came into force on May 30, 2012, which provided for significant changes in both structure, including the creation of the new CADE, and proceedings. The main change was the introduction of 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*).

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 dissolve mergers and to require a company to divest assets should it determine that the industry in which it operates is insufficiently competitive.

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.

Our railway business is subject to regulation and supervision by the Brazilian Ministry of Transportation and the ANTT and operates pursuant to concession contracts granted by the federal government, which impose certain limitations and obligations. As of December 31, 2013, we owned the following railway related assets: (i) a 33.27% participation in MRS Logística S.A., which holds a concession to operate Brazil's Southeastern railway system until 2026, renewable for an additional 30 years, (ii) a 77.30% participation in TLSA, which holds a concession to operate the Railway System II (which encompasses the stretches between Missão Velha – Salgueiro, Salgueiro – Trindade, Trindade – Eliseu Martins, Salgueiro – Porto de Suape and Missão Velha – Porto de Pecém) of Brazil's Northeastern railway system until the earlier of 2057, or the date when TLSA reaches a rate of annual return of 6.75% of its total investment and (iii) a 88.41% participation in FTL, which holds a concession to operate the Railway System I (which encompasses the stretches of São Luís – Mucuripe, Arrojado – Recife, Itabaiana – Cabedelo, Paula Cavalcante – Macau and Propiá – Jorge Lins) of Brazil's Northeastern railway system until 2027, renewable for an additional 30 years.

Our electricity generation business is subject to regulation and supervision by the Brazilian Ministry of Mines and Energy, the electricity regulatory agency (*Agência Nacional de Energia Elétrica*), or ANEEL, and the ONS. As of December 31, 2013, we owned the following energy related assets: (i) a 238 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.

Our port business is subject to regulation and supervision by the Brazilian Ministry of Transportation and the ports and navigation agency (*Agência Nacional de Transportes Aquaviários*), or ANTAQ. As of December 31, 2013, we owned the following port related assets: (i) a concession to operate TECAR, which expires in 2022, renewable for an additional 25 years, and (ii) 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.

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. Despite the imposed limitations, our exports have not been significantly affected, as we were able to re-direct our sales from restricted markets to other markets, and also because the volume of exports or products available for export has been decreasing as a result of the increased demand from our domestic market and thus present participation of exports in our total sales has been significantly reduced.

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. In September 1998, U.S. authorities initiated anti-dumping and countervailing duties investigations on hot-rolled steel sheet and coil imported from Brazil and other countries. The result of this investigation was the imposition of an anti-dumping margin of 41.27% and countervailing duties of 6.35%.

On June 2011 the anti-dumping and countervailing orders were revoked by the ITC. The ITC's decision was appealed to the U.S. Court of International Trade, or CIT, which issued its opinion upholding the ITCs decision, this decision was also appealed to the U.S. Court of Appeals for the Federal Circuit, or CAFC, which decision was to finally maintain the revocation of both the anti-dumping and countervailing duties orders.

## 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, since we are not a hot rolled coil exporter we are not currently affected.

### **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 2003 through 2013, total global crude steel production averaged approximately 1.3 billion tons per year. According to the WSA, in 2013, production reached a new record of 1.68 billion tons, which represents a 3.5% increase as compared to 2012. All major producing countries, except for United States, Russia, South Korea, Turkey, Brazil and Ukraine, increased their production levels in 2013.

China's crude steel production in 2013 reached 779 million tons, an increase of 7.5% as compared to 2012. Production volume in China has more than tripled in the last ten years, from 222 million tons in 2002. China's share of world steel production increased from 48.5% in 2012 to 46.7% in 2013. In 2013, Asian countries improved their production by 6.0%, reaching 1.08 bilion tons, according to WSA.

## **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 increased from 104 kilograms in 1999 to 147 kilograms in 2010. It is still considered low when compared to the levels of some developed countries, such as the United States and Germany.

From 2005 to 2007, Brazilian GDP grew on average 4.4%. 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 postponment 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.

## Market Participants

According to IABr (Instituto Aço Brasil), the Brazilian steel industry is composed of 28 mills managed by 10 corporate groups, with an installed annual capacity of approximately 45 million tons, producing a full range of flat, long, carbon, stainless and specialty steel.

## Capacity Utilization

There were no changes in Brazilian nominal steel production capacity in 2013 compared to 2012. This capacity was estimated at 49 million tons. The local steel industry operated at approximately between 70% and 72% utilization in 2013, similar to the level recorded in 2012.

### 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. Brazil's exports of slabs and billets reached 5.3 million tons in 2010, which represented 58% of total steel exports. In 2011, the exports of semi-finished products reached 7.2 million tons, representing 66% of total exports. 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, Brazilian steel exports totaled 8.09 million tons, representing 24% of total Brazilian steelmakers' sales (domestic plus exports) and accounting for U.S.\$5.5 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 2013, steel imports were 3.8 million tons, or 14% of apparent domestic consumption, in line with the figures from 2012. In 2013, steel imports decreased 0.5% as compared to 2012, 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, 20<sup>th</sup> floor (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, 2013.

Facility	Location	Size	Use	Productive Capacity	Title	Encumbrances	
Presidente Vargas Steelworks	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	mortgage <sup>(3)(4)</sup>	
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	
Metalic	Maracanaú, State of Ceará	0.10 square km	steel can manufacturer	900 million cans per year	owned	mortgage <sup>(5)</sup>	
Prada	São Paulo, State of São Paulo and Uberlândia, State of Minas Gerais		4 steel can manufacturer	1 billion cans per year	owned	none	

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		MG – 0.02 square km;				
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 240,000 tons	owned	none
Lusosider	Seixal, Portugal	0.39 square km	hot-dip galvanized, cold-rolled and tin products	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
Casa de Pedra mine	Congonhas, State of Minas Gerais	49.00 square km	iron ore mine	21.0 mtpy <sup>(6)</sup>	owned <sup>(7)</sup>	none
Engenho mine <sup>(8)</sup>	Congonhas, State of Minas Gerais	2.85square km	iron ore mine	5.6 mtpy <sup>(9)</sup>	concession	none
Fernandinho mine <sup>(8)</sup>	Itabirito, State of Minas Gerais	1.47 square km	iron ore mine	0.75 mtpy <sup>(6)</sup>	concession	none
Bocaina mine	Arcos, State of Minas Gerais	4.11 square km	limestone and dolomite mines	4.0 mtpy	concession	none
ERSA mine	Ariquemes, State of Rondônia	0.015 square km	tin mine	3,600 tons	concession	none
Thermoelectric co-generation power plant	Volta Redonda, State of Rio de Janeiro	0.04 square km	power plant	235.2 MW	owned	none
Itá <sup>(10)</sup>	Uruguay River - Southern Brazil	9.87 square km	power plant	1,450 MW	concession	none
Igarapava <sup>(10)</sup>	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	383 km tracks of railway 2	railway		concession	none
TECAR at Itaguaí Port	Itaguaí, State of Rio de Janeiro	0.69 square km	Iron ore shipment	45 mtpy	concession	none
Container terminal - TECON at Itaguaí port	Itaguaí, State of Rio de Janeiro	0.44 square km	containers	480 K TEUpy	concession	none
Namisa	State of Minas Gerais	11.56 square km	mine	-	Concession owned	/ none
Land	State of Rio de Janeiro	31.02 square km	undeveloped		owned	pledge <sup>(12)</sup> /Collateral / mortgage <sup>(4)</sup>
Land	State of Santa Catarina	6.22 square km	undeveloped		owned	pledge <sup>(12)</sup> /Collateral
Land	State of Minas Gerais	32.73 square km	undeveloped		owned	none
Land	State of Piaui		undeveloped		owned	none

#### 635,311 square km

		square Kill				
Steel plant with	Europa / Germany /	0.898	production of	1 million		
rolling mill		square km	sections	tons per	owned	none
(SWT)	Unterwellenborn	square kin	sections	year		

(1) Includes the Volta Redonda Long Steel Plant, which has an expect 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) Pursuant to a loan agreement entered into by the State of Rio de Janeiro and Galvasud as of May 4, 2000.

(4) Pursuant to a loan agreement entered into by Kreditanstatt Für Wiederafbau, Galvasud and Unibanco as of August 23, 1999.

(5) Pursuant to a loan agreement entered into by Metalic and *Banco do Nordeste do Brasil S.A* as of 2007.

(6) Information on installed capacity of products. For information on mineral reserves at our Casa de Pedra mine,

see "-Reserves at Casa de Pedra Mine" and table under "-Casa de Pedra Mine" below.

(7) Based on the Manifesto de Mina. See, "Item 4. Information on the Company — B. Business Overview —

Government Regulation and Other Legal Matters - Mining Concessions."

(8) Property owned by our 60% consolidated investee Namisa.

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

(10) Property 29.5% owned by us.

(11) Property 17.9% owned by us.

(12) 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 "Item 4B. Business Overview—Government Regulation and Other Legal Matters—Environmental Expenditures and Claims." In addition, for information on our plans to construct, expand and improve our facilities, see "Item 4. Information on the Company—D. Property, Plant and Equipment—Planned Investments" 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 and CSN LLC 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**

### Segregation of Mining Assets

We are analyzing the possibility of segregating our iron ore business and correlated logistics activities into one of our subsidiaries. Such segregation would be expected to occur upon the transfer, by means of a capital increase, of assets, liabilities, rights and obligations comprising our mining and related logistics businesses as well as of investments in related operating companies, and would also depend on several aspects, including certain regulatory approvals.

### Stahlwerk Thüringen Gmbh (SWT)

On January 31, 2012, CSN Steel, S.L.U., one of our Spanish subsidiaries, entered into a share purchase agreement with the Spanish group Alfonso Gallardo ("AG Group") to establish the acquisition of all the shares held by the AG Group in (i) SWT, a long steel manufacturer located in Unterwellenborn, Germany, specialized in the production of steel sections; and (ii) Gallardo Sections S.L.U., a steel distributor of SWT's products. The total amount of the transaction was  $\notin$ 483.4 million, without the assumption of any indebtedness.

The transaction involved an operational steel plant located in Germany, which was contemplated to be sold pursuant to a prior share purchase agreement executed on May 19, 2011 with the AG Group, amongst other assets. The transaction brought to an end the discussions between the parties regarding different interpretations of the earlier agreement, including termination of the related arbitral proceeding which was pending before the *Cámara Oficial de Comercio e Industria de Madrid*.

### Usiminas

On December 31, 2013, we owned, directly and indirectly, 20.69% of the preferred shares and 14.13% 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."

### Namisa

In 2008, a consortium of Asian shareholders that currently includes 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 and currently holds a 40% interest in Namisa. We and the Asian consortium have entered into a shareholders' agreement to govern our joint control of Namisa. In case of a dead-lock among the shareholders, a resolution process requires us to initiate mediation with our partners and, if no solution is reached, the matter is then submitted to be addressed directly by the senior executives of the companies in dispute. In the event the dead-lock remains, the shareholders' agreement provides for put and call options, which entitles the Asian consortium to elect to

sell all of its ownership interest in Namisa to us and we to elect to buy all ownership interest of the Asian consortium in Namisa, in each case for the fair market value of the respective shares.

In addition, certain other agreements, including the share purchase agreement between us and the Asian consortium and the long-term operational agreements between Namisa and us, provide for certain obligations that, in case breached or not cured within the relevant cure period, may 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.

We are currently negotiating with the Asian consortium to resolve certain matters that are subject to qualified quorum under the shareholders' agreement or related to the fulfillment of certain obligations under the agreements mentioned above. One possible solution is the combination of CSN's and Namisa's iron ore and related operations. If we fail to reach a mutually satisfactory agreement on such matters, the put and call options mentioned above may be exercised. As of the date of this annual report, negotiations are ongoing.

## **Capital Expenditures**

We intend to increase control of our main production costs and secure reliable and high quality sources of raw materials, energy and transportation supporting our steelmaking operations and other businesses such as cement, via strategic investment programs. Our main strategic investments being implemented or already in operation are set forth in "Item 4B. Business Overview—Facilities."

In 2013, we invested a total of R\$ 2,827 million, R\$954 million of which was allocated as follows: jointly controlled investees TLSA: R\$667 million; MRS Logística: R\$247 million; and Namisa: R\$40 million.

The remaining R\$1,873 million was expended on: construction of a brownfield long steel mill at the Volta Redonda site: R\$351 million; expansion of the Itaguaí Port (TECAR): R\$108 million; expansion of the Casa de Pedra mine: R\$172 million; expansion of our clinker plant: R\$209 million; and current investments: R\$ 1,033 million. For further information, see "Item 5B. Liquidity and Capital Resources-Short-Term Debt and Short-Term Investments."

In 2013, we continued to implement our strategy of developing downstream opportunities and projects based on synergies, new product lines and market niches by creating or expanding current capacity of services centers, as described in "Item 4B. Business Overview—Facilities."

In 2012, we invested a total of R\$3,144 million, R\$1,517 million of which was allocated as follows: TLSA and FTL: R\$984 million; MRS Logística: R\$328 million; Namisa: R\$77 million; TECON: R\$43 million; and other projects: R\$85 million.

The remaining R\$1,627 million was expended on: construction of a brownfield long steel mill at the Volta Redonda site: R\$454 million; expansion of the Itaguaí Port (TECAR): R\$231 million; maintenance and repairs: R\$219 million; expansion of the Casa de Pedra mine: R\$150 million; expansion of our clinker plant: R\$73 million; technological improvements: R\$24 million; and others projects: R\$476 million. For further information, see "Item 5B. Liquidity and Capital Resources-Short-Term Debt and Short-Term Investments."

In 2011, we invested R\$4,401 million, R\$2,382 million of which was allocated as follows: TLSA and FTL: R\$1,691 million; CSN Cimentos: R\$61 million; MRS Logística: R\$447 million; Namisa: R\$100 million; and other projects: R\$83 million.

The remaining R\$2,019 million was expended on: maintenance and repairs: R\$549 million; expansion of the Casa de Pedra mine: R\$251 million; expansion of the Port of Itaguaí: R\$238 million; technological improvements: R\$77 million; construction of a brownfield long steel mill at the Volta Redonda site: R\$220 million; and other projects: R\$684 million.

## **Planned Investments**

Our operating activities require regular investments in equipment maintenance, technological improvements, tools and spare parts, vehicles, buildings, and industrial plants, among others. These investments are classified as Sustaining ('Stay-in-Business') Capex.

The Company also invests to increase its operational efficiency and productivity, and expand production capacity in its traditional flat steel, mining and logistics businesses, as well as new businesses such as cement and long steel.

Our total planned investments for the next 6 years amount to R\$21.3 billion (ongoing and new projects), of which:

• R\$12.0 billion in our mining segment, including capacity expansion of the Casa de Pedra mine and of Namisa's mines and the expansion of shipping capacity of our Solid Bulk terminal at Itaguaí (TECAR);

• R\$0.4 billion in our steel segment, including the completion/implementation of flat steel projects, such as a steel service center at CSN Mogi das Cruzes, along with the implementation of projects focused on maintaining operational excellence with constant focus on cost reduction (e.g., energy efficiency);

• R\$1.4 billion in our cement segment, allocated towards expansions of our grinding capacity from 2.4 million tons to 5.4 million tons and our clinker production capacity from 0.8 million tons to 2.8 million tons; and

• R\$7.5 billion in projects to improve performance of current productive assets ("stay-in-business").

We expect to finance these investments through our own cash, public or private financing, and/or strategic partnerships.

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

### Steel

By the end of 2013, we began our start-up phase of the long steel plant in Volta Redonda, in the State of Rio de Janeiro, which consists on an electric arc steelmaking furnace, continuous casting for billets and a hot rolling mill for round section long products. We expect this plant to reach 500,000 t/year when fully operational, providing the domestic market with products for civil construction. This investment represents the entrance of CSN into the long steel market in Brazil.

We also iniciated the expansion investments of the steel service center at our CSN Mogi das Cruzes (Prada) facility. The steel service center plant in Mogi das Cruzes currently operates at near full capacity. There are also expansion projects underway in our other steel service centers.

## Mining

In the first expansion phase, we are planning to increase Casa de Pedra's production capacity to 40 million tons per year, while TECAR, reached an iron ore shipment capacity of 45 million tons in 2013.

## Logistics

In August 2006, in order to enable the implementation of a major infrastructure project led by the Brazilian federal government, our Board of Directors approved the merging of TLSA–, a company that was state-owned at the time, into and with Companhia Ferroviária do Nordeste, or CFN, an affiliate of CSN that held a 30-year concession, granted in 1997, to operate the Northeastern railway system of the RFFSA. The surviving entity was later renamed TLSA. The Northeastern railway system 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.

On September 20, 2013 we entered into an investment agreement with our partners in TLSA, Valec Engenharia, Construções e Ferrovias S.A. and Fundo de Desenvolvimento do Nordeste – FDNE, two Brazilian federal government entities focused on infrastructure and the development of the northeastern region. Resolution No. 4,042/2013 issued by the ANTT authorized the partial spin-off of TLSA and, as a result, the assets of the Northeastern railway system were segregated into two systems: (i) Railway System I, operated by FTL, comprising the stretches between the cities of São Luís – Mucuripe, Arrojado – Recife, Itabaiana – Cabedelo, Paula Cavalcante – Macau and Propiá – Jorge Lins and (ii) and Railway System II, operated by TLSA, comprising the stretches between Missão Velha – Salgueiro, Salgueiro – Trindade, Trindade – Eliseu Martins, Salgueiro – Porto de Suape and Missão Velha – Porto de Pecém.

As a result of the partial spin-off of TLSA. and the subsequent entry into effect of the new shareholders' agreement, control of TLSA is now shared with other shareholders, who have veto rights over certain important corporate decisions. As a result, we ceased to consolidate TLSA. and began recognizing it in accordance with the equity accounting method. See "Item 4B. Business—Our Logistics Segment—Railways—Northeastern Railway System."

### Cement

The cement plant in Volta Redonda is close to reaching its full production capacity of 2.4 million tons per year. The use of slag generated by our steel operation and the ramp-up of our clinker plant should gradually reduce costs, a critical element in the cement business.

We intend to expand our cement production capacity to 5.4 million tons per year over the next few years. We expect that the additional 3.0 million tons per year capacity will come from a new plant that will be integrated with a grinding unit and clinker furnace in Arcos, where we already operate a clinker furnace, using limestone from our own mine.

## Item 4A. 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, 2013 and 2012 and for each of the years ended December 31, 2013, 2012 and 2011 included in "Item 18. Financial Statements". Our consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (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."

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. In accordance with the new standards, the proportionate consolidation method for jointly controlled entites is no longer permitted. As a result of the adoption of these new standards, the Company no longer consolidates its jointly controlled entities Nacional Minérios S.A., MRS Logística S.A., and CBSI - Companhia Brasileira de Serviços de Infraestrutura, and began accounting for these investments under the equity method.

The amendments provide 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. As a result, the financial statements as of and for the year ended December 31, 2012 and the opening balance sheet as of January 1, 2012 have been restated for the effects of the retrospective adoption of these new standards. Our financial statements as of and for the year ended December 31, 2011 remain unchanged and as disclosed previously and, as a result, are not comparable with the information as of and for the years ended December 31, 2013 and 2012.

In addition, due to the partial spin-off of TLSA on December 27, 2013 and the consequent entry into effect of the new shareholders' agreement, we ceased to consolidate TLSA and began recognizing it in accordance with the equity accounting method.

## **5A. Operating Results**

## Overview

## Macro-Economic Scenario

## Brazil

According to the Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*), or IBGE, GDP increased by 2.3% in 2013, compared to an increase of 0.9% reported in 2012. This growth in 2013 was led by the agriculture sector and the increase in the investments in fixed capital goods, which moved up by 7.0% and 6.3%, respectively.

The IPCA consumer price index (the main inflation rate) stood at 5.91% in 2013, above the mid-point of the governmentally defined inflationary target range by the Monetary Policy Committee, or COPOM. As a result, the COPOM raised the SELIC benchmark interest rate for the sixth consecutive time at its last meeting in 2013, so that it closed the year at 10.0%.

According to the Monthly Employment Survey published by the IBGE, unemployment closed 2013 at 4.3%, its lowest ever. The annual average was 5.4%, slightly lower than the 2012 average.

According to the IBGE, industrial production increased by 1.2% in 2013, led by vehicle marketing, where production grew by 9.9% according to ANFAVEA. Installed Capacity Use, or NUCI, calculated by the Fundação Getúlio Vargas, or FGV, reached 84.3% in December 2013, unchanged from the same month in the prior year.

In 2013, the *real* suffered a strong devaluation against the U.S. dollar, especially in the second half of the year, due to the uncertainties associated with the normalization of U.S. monetary policy. The dollar closed the year at R\$2.343, 14.6% up in the year.

The trade balance narrowed from U.S.\$19.4 billion in 2012 to U.S.\$2.5 billion in December 2013, a decline of 86.8% and the worst result since 2000, while foreign reserves totaled U.S.\$375.8 billion, U.S.\$2.8 billion less than at the end of 2012. The 2013 primary surplus of R\$91.3 billion, equivalent to 1.9% of GDP, was the lowest since November 2002.

## USA

The U.S. had GDP growth of 1.9% in 2013, according to preliminary figures from the Department of Commerce, compared to 2.2% in 2012. Personal consumption expenditures, exports, nonresidential and residential fixed investment and private inventory investment, which were partly offset by a negative contribution from federal government spending contributed to GDP growth in 2013.

According to the latest Federal Reserve figures, industrial production increased by 3.7% in 2013 and the installed capacity use closed the year at 79.2%, higher than the 77.8% recorded at the end of 2012. The unemployment rate fell from 7.9% in December 2012 to 6.7% in December 2013. The manufacturing PMI recorded 55.0 points in December, the highest level in the last 11 months.

Given the improved scenario, the Federal Reserve announced a gradual reduction in the monetary stimuli as of January 2014, with low interest rates for a longer period.

## Europe

According to data released by Eurostat, the statistical office of the European Union, GDP in the EU28 grew 0.1% en 2013, while in the Eurozone GDP fell by 0.5% in the same period.

The Eurozone's compound PMI reached 52.1 points in December, the second-largest figure in the last two and a half years. Industry continued to lead the recovery, with a substantial upturn in the export segment, while services posted more modest growth, reflecting the fragility of certain economies where unemployment remained high. Greece recorded unemployment rate of 28.0% in November, the region's highest figure, followed by Spain, with 25.8% in December.

Given this scenario, the European Central Bank reduced interest rates to 0.25% p.a., their lowest ever level.

The UK economy has been recording growth in recent quarters. GDP moved up by 1.9% in 2013 compared to 2012, pushed by services and construction. Industrial production also recorded an improvement, increasing by 1.8%. The manufacturing PMI averaged 57.2 points in the fourth quarter, the highest since the first quarter of 2011.

### Asia

The Chinese economy maintained its growth pace in 2013, with the GDP posting an expansion of 7.7%, identical to last year's figure and above the 7.5% target. The government incentives proved to be successful, with growth being driven mainly by investments in fixed assets, which increased by 17.6% in 2013, although, such investments are supposed to be replaced for incentives to consumption going forward. December's manufacturing PMI stood at 50.5 points, expanding for the fifth consecutive month, while industrial production in the same month moved up 9.7% year-on-year.

In Japan, the measures to stimulate economic activity and combat inflation appear to be working and the country's economy is undergoing moderate expansion. The consumer price index recorded an upturn of 0.4% in 2013, the first in five years, while GDP increased by 1.6%, pushed by domestic demand. Given this scenario, the Bank of Japan maintained the "Abenomics" program, which consists of monetary easing, with bond buybacks, maintaining the benchmark interest rate at between 0% and 0.1% p.a.

### Segments

### Steel

According to the World Steel Association, or WSA global crude steel production totaled 1.6 billion tons in 2013, 3.5% higher than in 2012, with China, responsible for 779 million tons, recording growth of 7.5%. Existing global capacity use moved up by 1.9% over the year before to 78.1%.

## Brazil

According to the Brazilian Steel Institute (IABr), annual domestic crude steel production totaled 34.2 million tons, 1% less than in 2012, while rolled flat steel output totaled 26.3 million tons, up by 2%.

Apparent domestic steel product consumption came to 26.2 million tons, 4% more than in 2012, while domestic sales moved up by 5% to 22.8 million tons. Imports came to 3.7 million tons, down by 2%, while exports dropped by 17% to 8.1 million tons.

### Automotive

According to ANFAVEA, vehicle production totaled 3.7 million units in 2013, 9.9% more than in 2012. Vehicle sales totaled 3.8 million in the year, a decrease of 0.9% in relation to 2012. On the other hand, exports jumped 27% to 563,000 units, reaching a new record.

At the close of 2013, the federal government ruled that it willreimpose, between January and July 2014, the IPI tax (federal VAT) on vehicles.

## Construction

According to the Construction Material Manufacturers' Association, or ABRAMAT, domestic sales of building materials in 2013 increased by 3% over 2012.

The Residential Builders' Association, or SECOVI recorded 58,000 real estate launches in the São Paulo metropolitan region in 2013, 3% up on 2012.

## Distribution

According to the Brazilian Steel Distributors' Association, or INDA, domestic flat steel sales by distributors totaled 4.5 million tons in 2013, 4.3% more than 2012.

## Home Appliances

According to the IBGE, home appliance production in 2013 fell by 4.13% over 2012.

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### International

According to the WSA, crude steel output in China totaled 779 million tons in 2013, a 7.5% increase as compared to 2012 accounting for 49.2% of the global total output. Japan's crude steel production increased 3.1%, totaling 110.6 million tons in 2013. In the European Union, production reached 165.6 million tons in 2013, corresponding to a 2.2% decrease as compared to 2012. In the U.S., crude steel production totaled 87 million tons in 2013, a 1.9% decrease as compared to 2012.

### Mining

In 2013, the seaborne iron ore market was positively affected by the strong upturn in Chinese steel production. The Chinese government's measures to restore liquidity and stimulate infrastructure helped push up demand for steel throughout the second half of 2013. Annual iron ore imports increased by 11% over 2012, reaching 798 million tons. As a result, the seaborne iron ore market grew by 8% to 1.2 billion tons, a new record.

The Platts 62% Fe CFR China index averaged U.S.\$135.19/dmt in 2013, 4% more than 2012.

Brazil, the world's second biggest iron ore exporter, exported 330 million tons in 2013, 1% more than in 2012.

### Logistics

### Railway logistics

According to the National Rail Transport Association, or ANTF, the Brazilian railways transported 341 million tons of cargo in the first nine months of 2013.

### Port logistics

According to ANTAQ, Brazil's port installations handled around 931 million tons in 2013, 3% or 26.6 million tons more than in 2012, with bulk solids totaling 569 million tons in 2013, an increase of 2.5% compared to 2012.

Container handling amounted to 2.3 million TEUs in the third quarter of 2013, 4% higher than the previous quarter, giving a nine-month total of 6.4 million TEUs, 5% more than in the same period the year before.

### Cement

Preliminary figures from the Brazilian Cement Industry Association, or SNIC, indicate domestic cement sales of 70 million tons in 2013.

### Energy

According to the Brazilian Energy Research Company, or EPE, in 2013 Brazilian electricity consumption increased by 3.5% over 2012, led by the commercial and residential segments, which recorded respective growth of 5.7% and 6.1%.

### **Steel Markets and Product Mix**

# Supply and Demand for Steel

Prices of steel are sensitive to changes in worldwide and local demand, which in turn are affected by worldwide and country-specific economic cycles, and to available production capacity. While the export price of steel (which is denominated in U.S. dollars or Euros, depending on the export destination) is the spot price, there is no exchange trading of steel or uniform pricing. Unlike other commodity products, steel is not completely fungible due to wide differences in terms of size, chemical composition, quality and specifications, all of which impact prices. Many companies (including us) discount their list prices for regular customers, making their actual transaction prices difficult for us to determine.

Historically, export prices and margins have been lower than domestic prices and margins, because of the logistics costs, taxes and tariffs. The portion of production that is exported is affected by domestic demand, exchange rate fluctuations and the prices that can be charged in the international markets.

The following table shows Brazilian steel production and apparent consumption (domestic sales plus imports) and global production and demand for the periods indicated:

	<b>2013</b> <sup>(1)</sup>	2012	2011
<b>Brazilian Market</b> (in thousands of tons) <sup>(2)</sup>			
Total Flat and Long Steel			
Production	26,256	26,381	25,053
Apparent Consumption	26,266	25,426	25,053
Hot-Rolled Coils and Sheets			
Production		4,377	4,086
Apparent Consumption		3,412	3,496
Cold-Rolled Coils and Sheets			
Production		2,860	2,738
Apparent Consumption		2,800	2,728
Galvanized Sheets			
Production		2,980	2,582
Apparent Consumption		2,994	2,789
Tin Plates			
Production		809	857
Apparent Consumption		512	593
Global Market (in millions of tons)			
Crude Steel Production	1,607	1,547	1,518
Demand		1,412	1,395

Source: IABr and WSA.

(1) Some information for 2013 was not yet available as of the date of this annual report.

(2) Information about production excludes intra steel companies' sales.

## **Product Mix and Prices**

Sales trends in both the domestic and foreign markets are forecasted monthly based on historical data of the preceding months. CSN uses its own information system to remain current on market developments so that it can respond swiftly to fluctuations in demand.

CSN considers its flexibility in shifting between markets, and its ability to monitor and optimize inventory levels in light of changing demand, as key to its success.

We have a strategy of increasing the portion of our sales attributable to higher value-added coated products, particularly galvanized flat steel and tin plate products. Galvanized products are directed at the automotive, construction and home appliance industries. Tin plate products are used by the steel packaging market.

				Sales Volume					
		Tons				% of Sale	es Volume		
				Ι	n Marke	et		Total	
	2013	2012	2011	2013	2012	2011	2013	2012	2011
Domestic Sales									
Slabs	11	2	15	0%	0%	0%	0%	0%	0%
Hot-Rolled	2,107	2,111	1,951	45%	47%	46%	34%	41%	40%
Cold-Rolled	798	832	770	17%	18%	18%	13%	16%	16%
Galvanized	1,248	1,105	991	27%	25%	23%	20%	22%	20%
Tin Mill	486	445	489	11%	10%	12%	9%	9%	10%
Subtotal	4,650	4,495	4,216	100%	100%	100%	76%	88%	86%
Sales abroad									
Slabs	-	-	-	0%	0%	0%	0%	0%	0%
Hot-Rolled	20	16	13	1%	1%	2%	0%	0%	0%
Cold-Rolled	66	52	49	4%	4%	7%	1%	1%	1%
Galvanized	468	413	457	31%	31%	67%	8%	8%	9%
Tin Mill	159	129	161	10%	10%	24%	3%	2%	3%
Long Steel	754	724		54%	54%		12%		
Subtotal	1,467	1,334	680	100%	100%	100%	24%	12%	14%
Total	6,117	5,829	4,896				100%	100%	100%
Total Sales									
Slabs	11	2	15				0%	0%	0%
Hot-Rolled	2,127	2,127	1,965				35%	37%	40%
Cold-Rolled	864	884	819				14%	15%	17%
Galvanized	1,716	1,518	1,447				28%	26%	30%
Tin Mill	645	574	649				11%	10%	13%
Long Steel	754	724					12%	12%	
Total	6,117	5,829	4,896				100%	100%	100%

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Net Operating Revenues									
	In n	In millions of R\$			% of Net Operating Revenues				
				Ι	n Marke	et		Total	
	2013	2012	2011	2013	2012	2011	2013	2012	2011
Domestic Sales									
Slabs	10	2	13	0%	0%	0%	0%	0%	0%
Hot-Rolled	3,471	3,093	2,936	37%	37%	36%	29%	28%	32%
Cold-Rolled	1,509	1,474	1,412	16%	18%	18%	12%	14%	15%
Galvanized	2,888	2,350	2,178	30%	28%	27%	24%	22%	24%
Tin Plate	1,651	1,419	1,495	17%	17%	19%	14%	13%	16%
Subtotal	9,529	8,338	8,033	100%	100%	100%	<b>79%</b>	79%	87%
Sales abroad									
Slabs	-	-	-	0%	0%	0%	0%	0%	0%
Hot-Rolled	30	24	19	0%	0%	2%	0%	0%	0%
Cold-Rolled	112	82	74	4%	4%	6%	1%	1%	1%
Galvanized	893	750	786	33%	33%	64%	7%	6%	8%
Tin Plate	345	293	340	13%	13%	28%	3%	3%	4%
Long steel	1,223	1,129		50%	50%		10%	11%	
Subtotal	2,603	2,278	1,219	100%	100%	100%	21%	21%	13%
Total	12,132	10,616	9,252				100%	100%	100%
Total Sales									
Slabs	10	2	13						
Hot-Rolled	3,501	3,117	2,955						
Cold-Rolled	1,621	1,556	1,486						
Galvanized	3,781	3,100	2,964						
Tin Plate	1,996	1,712	1,835						
Long steel	1,223	1,129							
Subtotal	12,132	10,616	9,252				0%	0%	0%
By-Product	261	186	225				2%	2%	2%
Total	12,393	10,802	9,477				100%	100%	100%

### Brazilian Macro-Economic Scenario

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

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

#### Year ended December 31,

	2013	2012	2011
GDP growth	2.3%	0.9%	2.7%
Inflation (IPCA) <sup>(1)</sup>	5.9%	5.8%	6.5%
Inflation (IGP-M) <sup>(2)</sup>	5.5%	7.8%	5.1%
CDI <sup>(3)</sup>	8.1%	8.4%	11.6%
Appreciation (depreciation) of the real			
against the U.S. dollar	(14.6)%	(8.9)%	(12.6)%
Exchange rate at end of period (U.S.\$1.00)	R\$2.343	R\$2.044	R\$1.876
Average exchange rate (U.S.\$1.00)	R\$ 2.160	R\$1.955	R\$1.675
Sources: IBGE, Fundação Getúlio Vargas, Central	Bank and CETIP.		

(1)The IPCA is a consumer price index measured by the IBGE.

(2) The IGP-M is the general market price index measured by the Fundação Getúlio Vargas.

(3)The Interbank Deposit Rate, or CDI, represents the average interbank deposit rate performed during a given day in Brazil (accrued as of the last month of the period, annualized).

## **Effects of Exchange Rate Fluctuations**

Our export revenues are substantially denominated in U.S. dollars. Our domestic revenues are denominated in Brazilian *reais*.

A significant portion of our cost of products sold is commoditized raw materials, the prices of which are denominated in U.S. dollars. The balance of our cost of products sold and our cash operating expenses (i.e., operating expenses apart from depreciation and amortization) are denominated in *reais*.

The appreciation of the U.S. dollar against the *real* has the following effects on the results of our operations expressed in U.S. dollars:

• Domestic revenues tend to be lower (in comparison with prior years) and this effect is magnified to the extent to which we sell more products than usual in the domestic as opposed to the foreign market;

• The impact of *real* denominated costs of products sold and operating costs tend to be lower; and

• Financial expenses are increased to the extent to which the exposure to dollar-denominated debt is not protected.

The appreciation of the *real* against the U.S. dollar has the following effects on the results of our operations expressed in U.S. dollars:

• Domestic revenues tend to be higher (in comparison with prior years) and this effect is magnified to the extent to which we sell more products than usual in the domestic market;

- The impact of *real* denominated costs of products sold and operating costs tends to be higher; and
- Financial income is increased to the extent to which the exposure to dollar-denominated debt is not protected.
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The impact of fluctuations in the exchange rate of the *real* against other currencies on the results of our operations can be seen in the "foreign exchange and monetary gain (loss), net" line in our income statement, although that amount is partially offset by the net financial income (or expense) attributable to the profit (or loss) on the derivative transaction of our foreign currency-denominated debt. In order to minimize the effects of the exchange rate fluctuations, we often engage in derivative transactions, including currency swap and foreign currency option agreements. For a discussion of the possible impact of fluctuations in the foreign currency exchange and interest rates on our principal financial instruments and positions, see "Item 11. Quantitative and Qualitative Disclosures About Market Risk."

## **Effects of Inflation and Interest Rates**

Inflation rates in Brazil have been significantly volatile in the past. Inflation rates remained relatively stable from 2003 to 2004, decreased in 2005 and 2006 and increased in 2007 and 2008. In 2009, for the first time since its creation in 1989, the IGP-M inflation index recorded a deflation in a calendar year, equivalent to 1.71%. In 2011 the index increased 5.1% and in 2012 and 2013, the IGP-M index increased 7.8% and 5.5%, respectively.

Inflation affects our financial performance by increasing some of our costs and expenses denominated in *reais* that are not linked to the U.S. dollar. Our cash costs and operating expenses are substantially denominated in *reais* and have tended to follow the Brazilian inflation ratio because our suppliers and service providers generally increase or decrease prices to reflect Brazilian inflation. In addition, some of our *real*-denominated debt is indexed to take into account the effects of inflation. Under this debt, the principal amount is generally adjusted with reference to inflation indexes. In addition, a significant portion of our *real*-denominated debt bears interest based on the Interbank Deposit Certificade *de Depósito Interbancário*), or CDI, rate which is partially adjusted for inflation.

The table below shows the Brazilian general price index and the CDI rates for the periods shown:

	Year ended December 31,		
	2013	2012	2011
Inflation (IGP-M) <sup>(1)</sup>	5.9%	7.8%	5.1%
CDI <sup>(2)</sup>	8.1%	8.4%	11.6%

Source: Fundação Getúlio Vargas, or FGV, and CETIP.

(1) The IGP-M inflation is the general market price index measured by the FGV.

(2) The Interbank Deposit Rate, or CDI, represents the average interbank deposit rate performed during a given day in Brazil (accrued as of the last month of the period, annualized).

### Accounting for mining production utilized by our steel production

We are currently self-sufficient regarding the iron ore used in our steel production. The iron ore required is extracted from our Casa de Pedra mine, which in 2013 amounted to approximately 5.7 million tons of its total iron ore

production of approximately 19.4 million tons. The remainder of the iron ore production is sold to third parties in Brazil and throughout the world.

The cost of iron ore regarding our steel production is recorded on our income statement in the cost of goods sold line item as its extraction cost plus transport from the mine. In 2013, 2012 and 2011, these costs were R\$372 million, R\$280 million and R\$283 million, respectively.

# **Critical Accounting Estimates**

We prepared our consolidated financial statements as of and for the year ended December 31, 2013 in accordance with IFRS, as issued by the IASB. In preparing our consolidated financial statements, we make estimates concerning a variety of matters. Some of these matters are highly uncertain, and our estimates involve judgments we make based on the information available to us. In the discussion below, we have identified several of these matters for which our financial presentation would be materially affected if either (1) we used different estimates that we could reasonably have used or (2) in the future we change our estimates in response to changes that are reasonably likely to occur.

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This discussion addresses only those estimates that we consider most important based on the degree of uncertainty and the likelihood of a material impact if we used a different estimate. There are many other areas in which we use estimates about uncertain matters, but the reasonably likely effect of changed or different estimates is not material to our financial presentation.

### Impairment of long-lived assets, intangible assets, goodwill and financial assets

In accordance with IAS 36 "Impairment of assets", long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset.

A determination of the fair value of an asset requires management to make certain assumptions and estimates with respect to projected cash inflows and outflows related to future revenues and expenditures. These assumptions and estimates can be influenced by different external and internal factors, such as economic and industry trends, interest rates and changes in the marketplace. A change in the assumptions and estimates that we use could change our estimate of the expected future net cash flows and lead to the recognition of an impairment charge in results of operations relating to our property, plant and equipment.

Assets that have an indefinite useful life, such as goodwill, are not subject to amortization and are tested annually for impairment in accordance with IAS 36 "Impairment of assets". Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. Goodwill is allocated to Cash-Generating Units (CGUs) for impairment testing purposes. The allocation is made to Cash-Generating Units or groups of Cash-Generating Units that are expected to benefit from the business combination from which the goodwill arose, and the unit is not greater than the operating segment.

Financial assets are reviewed for impairment at the end of each reporting period and we assess whether there is objective evidence that a financial asset or a group of financial assets is impaired.

In the case of equity securities classified as available-for-sale, a significant or prolonged decline in the fair value of an investment in an equity instrument below its cost is also objective evidence of impairment. Determining what is considered a "significant" or "prolonged" decline requires judgment. For this judgment we assess, among other factors, the historical changes in the equity prices, the duration and proportion in which the fair value of the investment is lower than its cost, and the financial health and short-term prospects of the business for the investee, including factors such as: industry and segment performance, changes in technology, and operating and financial cash flows. If there is any of this evidence of impairment of available-for-sale financial assets, the cumulative loss measured as the difference between the acquisition cost and the current fair value, less any impairment loss on the financial asset previously recorded in profit or loss is reclassified from shareholders' equity and recognized in the income statement. Impairment losses recognized in the income statement as available-for-sale instruments are not reversed through the income statement.

On December 31, 2013, we owned, directly and indirectly, 20.69% of the preferred shares (USIM5) and 14.13% of the common shares (USIM3) of Usinas Siderúrgicas de Minas Gerais S.A. ("Usiminas"), resulting from various acquisitions on the stock exchange since mid-2010. The instruments are classified as financial instruments available

for sale and measured at their fair value based on their quoted market price in the Brazilian stock exchange (BOVESPA) on December 31, 2013.

# Depreciation and amortization

The basis for calculation of depreciation is the cost of the asset less the estimated residual value upon sale. While no specific depreciation method is recommended, the method chosen should be applied consistently for all significant components of assets and allocation of the depreciation should be on a systematic basis for each one of the accounting periods that best represents the realization of the economic benefits during the usable lives of assets.

In light of the necessity to review useful lives at least every financial year, in 2013 management performed the review for all the Company's units. See further details in Note 10 to our consolidated financial statements.

## Fair value of business combinations

We estimate the fair value of assets acquired and liabilities assumed of our business combinations as required by IFRS 3 "Business Combination". Accordingly, when determining the purchase price allocations of our business acquisitions, we adjust to fair value certain items such as inventories, property, plant and equipment, mines, present value of long-term assets and liabilities, among others, which are determined by independent appraisals that perform the valuations for us.

Goodwill represents the excess of the cost of an acquisition over the Company's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of the acquired company. If there is any negative goodwill determined by the acquirer in the fair value of the assets, liabilities and contingent liabilities acquired in relation to the cost of acquisition, the Company should recognize it immediately in the statement of income.

### Derivatives

IAS 39, "Financial Instruments: Recognition and Measurement", requires that we recognize all derivative financial instruments as either assets or liabilities on our balance sheet and measure such instruments at fair value. Changes in the fair value of derivatives are recorded in each period in the statement of income or in other comprehensive income, in the latter case depending on whether a transaction is designated as an effective hedge. Our derivative instruments do not qualify for hedge accounting. Changes in the fair value of any of these derivative instruments are immediately recorded in the statements of income under "Finance income" and "Finance costs". Although the Company uses derivative for hedging purposes, it does not apply hedge accounting. With respect to the fair value measurement, we must make assumptions such as to future foreign currency exchange and interest rates. For a discussion of the possible impact of fluctuations in the foreign currency exchange and interest rates on our principal financial instruments and positions, see "Item 11. Quantitative and Qualitative Disclosures About Market Risk."

## Pension plans

We sponsor defined benefit pension plans covering some of our retirees. We account for these benefits in accordance with IAS 19, "Employee Benefits". The determination of the amount of our obligations for pension benefits depends on certain actuarial assumptions. These assumptions are described in Note 28 to our consolidated financial statements and include, among others, the expected long-term rate of return on plan assets and increases in salaries. In accordance with IFRS, when the benefits of a plan are increased, the portion of the increased benefit related to past services of employees is recognized in profit or loss until the benefits become vested. The Company recognize all the actuarial gains and losses resulting from defined benefit plans immediately in other comprehensive income and then transferred within equity. If the plan is extinguished, actuarial gains and losses are recognized in profit or loss.

Some of the Company's entities offered a postretirement healthcare benefit to their employees. The expected costs of these benefits were accumulated during the employment period, and are calculated using the same accounting method used for the defined benefit pension plans.

## Deferred taxes

We compute and pay income taxes based on results of operations determined under Brazilian Corporate Law. A deferred income tax liability is recognized for all temporary tax differences, while a deferred income tax asset is recognized only to the extent that it is probable that future taxable profit will be available against which the deductible temporary difference can be utilized. Deferred tax assets and liabilities are classified as long-term. Tax assets and liabilities are offset if the entity has a legally enforceable right to offset them and they are related to taxes levied by the same taxing authority. If the criterion for offset of current tax assets and liabilities is met, deferred tax

assets and liabilities will also be offset. The income tax related to items recognized directly in equity in the current period or in a prior period is recognized directly in the same account. We regularly review the deferred income tax assets for recoverability and will only recognize these if we believe that it is probable that the deferred income tax assets will be realized, based on historical taxable income, projected future taxable income, and the expected timing of the reversals of existing temporary differences. If we operate at a loss or are unable to generate sufficient future taxable income, or if there is a material change in the actual effective tax rates or discount rates, the time period over which the underlying temporary differences become taxable or deductible, or any change in its future projections, we reduce the carrying amount of deferred income tax assets to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred income tax asset to be realized.

### Contingencies and disputed taxes

We record provisions for contingencies relating to legal proceedings with respect to which we deem the likelihood of an unfavorable outcome to be probable and the loss can be reasonably estimated. This determination is made based on the opinion of our internal and external legal counsel. We believe these contingencies are properly recognized in our financial statements in accordance with IAS 37 "Provision, Contingent Liabilities and Contingent Assets". We are also involved in judicial and administrative proceedings that are aimed at obtaining or defending our legal rights with respect to taxes that we believe to be unconstitutional or otherwise not required to be paid by us. We believe that these proceedings will ultimately result in the realization of contingent tax credits or benefits that can be used to settle direct and indirect tax obligations owed to the Brazilian Federal or State Governments or to settle municipal tax obligations owed to the corresponding Municipality as per our laws. We do not recognize these contingent tax credits or benefits in our financial statements until realization of such gain contingencies has been resolved. This occurs when a final irrevocable decision is rendered by the courts in Brazil. When we use contingent tax credits or benefits based on favorable temporary court decisions that are still subject to appeal to offset current direct or indirect tax obligations, we maintain the legal obligation accrued in our financial statements until a final irrevocable judicial decision on those contingent tax credits or benefits is rendered. The accrual for the legal obligation related to the current direct or indirect tax obligations offset is not reversed until such time as the utilization of the contingent tax credits or benefits is ultimately realized. The accounting for the contingent tax credits is in accordance with accounting for contingent assets under IAS 37. Our accruals include interest on the tax obligations that we may offset with contingent tax credits or benefits at the interest rate defined in the relevant tax law. The recorded accruals for these disputed taxes and other contingencies may change in the future due to new developments in each matter, such as changes in legislation, irrevocable, final judicial decisions specific to us, or changes in approach, such as a change in settlement strategy in dealing with these matters. See "Item 8A. Consolidated Statements and Other Financial Information-Legal Proceedings" for further information on the judicial and administrative proceedings in which we are involved.

### Allowance for doubtful accounts

We consider a provision for bad debts in our trade accounts receivable in order to reflect our expectation as to the net realizable value thereof. This provision is estimated based on an analysis of our receivables and is periodically reviewed to maintain real expectation of collectability of our accounts receivable.

## Mineral Reserves and Useful life of mine

The estimates of probable and proven reserves are periodically evaluated and updated. These reserves are determined using generally accepted geological valuation techniques. The method of calculation requires the use of different assumptions by internal specialists and changes in some of these assumptions may have significant impact on probable and proven iron ore reserves recorded and on the useful life of mines.

## Property, Plant and Equipment

In accordance with our accounting policy, the cost of maintenance in operating assets is capitalized when it does not occur annually and results in an increase in the useful life of the asset. Depreciation is recognized on an accrual basis until the next maintenance event of the relevant asset. Expenditures for maintenance and repairs in operating assets, that are necessary to maintain assets under normal conditions of use, are charged to operating costs and expenses, as incurred.

As of December 31, 2013 and 2012 the amount capitalized in property, plant and equipment was R\$152 million and R\$273 million respectively and the amount expended was R\$1,297 million and R\$1,019 million, respectively.

### Recently Issued Accounting Pronouncements Adopted and Not Adopted by Us

For a description on the recently issued accounting pronouncements, see Note 2 to our consolidated financial statements contained in "Item 18. Financial Statements."

### **Results of Operations**

The following table presents certain financial information with respect to our operating results for each of the years ended December 31, 2013, 2012 and 2011:

	Year Ended December 31,					
Income Statement Data:	2013	2013	2012	<b>2011</b> <sup>(1)</sup>		
	(in					
	million					
	of US\$,					
	except					
	per					
	share	(in million of R\$, except per share data)				
	data)					
Net operating revenues	7,389	17,312	15,229	16,520		
Cost of products sold	(5,302)	(12,423)	(11,259)	(9,801)		
Gross Profit	2,087	4,889	3,970	6,719		
Operating expenses						
Selling						