

NATIONAL STEEL CO  
Form 20-F  
December 26, 2017

1

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

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**FORM 20-F**

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES  
EXCHANGE ACT OF 1934

OR

R ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2016

OR

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

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE  
ACT OF 1934

Commission File Number 1-14732

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

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

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

1

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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>  | <u>Name of each exchange on which registered</u> |
|---|--|
| Common Shares without par value   | New York Stock Exchange*                         |
| American Depositary Shares, (as evidenced by American Depositary Receipts), each representing one share of Common Stock | New York Stock Exchange                          |

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\* 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.

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

None

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

None

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

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

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

Yes RNo

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

Yes RNo

**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.**

RYes No

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

Yes No

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

Large Accelerated Filer R Accelerated Filer Non-accelerated Filer

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

U.S. GAAP

Other

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

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

**Item 17   Item 18**

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

**Yes   R   No**

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**TABLE OF CONTENTS**

|  |            |
|--|------------|
| <b>INTRODUCTION</b>  | <b>5</b>   |
| <b>FORWARD-LOOKING STATEMENTS</b>                                    | <b>5</b>   |
| <b>PRESENTATION OF FINANCIAL AND OTHER INFORMATION</b>               | <b>6</b>   |
| <b>Item 1. Identity of Directors, Senior Management and Advisors</b> | <b>6</b>   |
| <b>Item 2. Offer Statistics and Expected Timetable</b>               | <b>6</b>   |
| <b>Item 3. Key Information</b>                                       |            |
| <b>3A. Selected Financial Data</b>                                   | <b>6</b>   |
| <b>3B. Capitalization and Indebtedness</b>                           | <b>10</b>  |
| <b>3C. Reasons for the Offer and Use of Proceeds</b>                 | <b>10</b>  |
| <b>3D. Risk Factors</b>  | <b>10</b>  |
| <b>Item 4. Information on the Company</b>                            | <b>25</b>  |
| <b>4A. History and Development of the Company</b>                    | <b>25</b>  |
| <b>4B. Business Overview</b>   | <b>27</b>  |
| <b>4C. Organizational Structure</b>                                  | <b>65</b>  |
| <b>4D. Property, Plant and Equipment</b>                             | <b>65</b>  |
| <b>4E. Unresolved Staff Comments</b>                                 | <b>70</b>  |
| <b>Item 5. Operating and Financial Review and Prospects</b>          | <b>70</b>  |
| <b>5A. Operating Results</b>   | <b>71</b>  |
| <b>5B. Liquidity and Capital Resources</b>                           | <b>98</b>  |
| <b>5C. Research &amp; Development and Innovation</b>                 | <b>104</b> |
| <b>5D. Trend Information</b>   | <b>105</b> |
| <b>5E. Off-Balance Sheet Arrangements</b>                            | <b>106</b> |
| <b>5F. Tabular Disclosure of Contractual Obligations</b>             | <b>110</b> |
| <b>5G. Safe Harbor</b>   | <b>110</b> |
| <b>Item 6. Directors, Senior Management and Employees</b>            | <b>110</b> |
| <b>6A. Directors and Senior Management</b>                           | <b>110</b> |
| <b>6B. Compensation</b>  | <b>114</b> |

|  |            |
|--|------------|
| <b>6C. Board Practices</b>   | <b>114</b> |
| <b>6D. Employees</b>   | <b>114</b> |
| <b>6E. Share Ownership</b>   | <b>115</b> |
| <br>   |            |
| <b>Item 7. Major Shareholders and Related Party Transactions</b>   | <b>115</b> |
| <b>7A. Major Shareholders</b>                                      | <b>115</b> |
| <b>7B. Related Party Transactions</b>                              | <b>115</b> |
| <br>   |            |
| <b>Item 8. Financial Information</b>                               | <b>116</b> |
| <b>8A. Consolidated Statements and Other Financial Information</b> | <b>116</b> |
| <b>8B. Significant Changes</b>                                     | <b>123</b> |
| <br>   |            |
| <b>Item 9. The Offer and Listing</b>                               | <b>123</b> |
| <b>9A. Offer and Listing Details</b>                               | <b>123</b> |
| <b>9B. Plan of Distribution</b>                                    | <b>125</b> |
| <b>9C. Regulation of Securities Markets</b>                        | <b>125</b> |
| <b>9D. Selling Shareholders</b>                                    | <b>127</b> |
| <b>9E. Dilution</b>  | <b>127</b> |
| <b>9F. Expenses of the Issuer</b>                                  | <b>127</b> |
| <br>   |            |
| <b>Item 10. Additional Information</b>                             | <b>127</b> |
| <b>10A. Share Capital</b>  | <b>127</b> |
| <b>10B. Memorandum and Articles of Association</b>                 | <b>128</b> |

---

|   |            |
|---|------------|
| <b>10C. Material Contracts</b>  | <b>131</b> |
| <b>10D. Exchange Controls</b>   | <b>131</b> |
| <b>10E. Taxation</b>  | <b>132</b> |
| <b>10F. Dividends and Paying Agents</b>   | <b>140</b> |
| <b>10G. Statement by Experts</b>  | <b>140</b> |
| <b>10H. Documents on Display</b>  | <b>141</b> |
| <b>10I. Subsidiary Information</b>  | <b>141</b> |
| <br>  |            |
| <b>Item 11. Quantitative and Qualitative Disclosures About Market Risk</b>                  | <b>141</b> |
| <br>  |            |
| <b>Item 12. Description of Securities Other Than Equity Securities</b>                      | <b>148</b> |
| <br>  |            |
| <b>Item 13. Defaults, Dividend Arrearages and Delinquencies</b>                             | <b>148</b> |
| <br>  |            |
| <b>Item 14. Material Modification to the Rights of Security Holders and Use of Proceeds</b> | <b>148</b> |
| <br>  |            |
| <b>Item 15. Controls and Procedures</b>   | <b>149</b> |
| <br>  |            |
| <b>Item 16. [Reserved]</b>  | <b>150</b> |
| <b>16A. Audit Committee Financial Expert</b>  | <b>150</b> |
| <b>16B. Code of Ethics</b>  | <b>150</b> |
| <b>16C. Principal Accountant Fees and Services</b>  | <b>151</b> |
| <b>16D. Exemptions from the Listing Standards for Audit Committees</b>                      | <b>151</b> |
| <b>16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers</b>          | <b>151</b> |
| <b>16F. Change in Registrant’s Certifying Accountant</b>                                    | <b>152</b> |
| <b>16G. Corporate Governance</b>  | <b>153</b> |
| <b>16H. Mine Safety Disclosure</b>  | <b>155</b> |
| <br>  |            |
| <b>Item 17. Financial Statements</b>  | <b>155</b> |
| <br>  |            |
| <b>Item 18. Financial Statements</b>  | <b>155</b> |
| <br>  |            |
| <b>Item 19. Exhibits</b>  | <b>155</b> |
| <br>  |            |
| <b>PART II</b>  | <b>149</b> |





## Introduction

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

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

“Brazilian government” are to the federal government of the Federative Republic of Brazil;

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

“U.S. dollars,” “\$,” “U.S.\$” or “USD” are to United States dollars;

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

“TEUs” are to twenty-foot equivalent units;

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

“ADSs” are to CSN’s American Depositary Shares and “ADRs” are to CSN’s American Depositary Receipts; and

“Brazil” is to the Federative Republic of Brazil.

## Forward-Looking Statements

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

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

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

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

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

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

### **Presentation of Financial and Other Information**

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

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

## **PART I**

### **Item 1. Identity of Directors, Senior Management and Advisors**

Not applicable.

### **Item 2. Offer Statistics and Expected Timetable**

Not applicable.

### **Item 3. Key Information**

#### **3A. Selected Financial Data**

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

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

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

6

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*Summary Financial and Operating Data*

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

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

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

1. Business Combination

- (a) The Business Combination involving CSN Mineração and Namisa;
- (b) Adjustments to the participation of the non-controlling interest of CSN Mineração resulting from a change in the interpretation of the application of the IFRS 3 accounting pronouncement.

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

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

| <b>Income<br/>Statement<br/>Data:</b>              | <b>Year Ended December 31,</b> |             |   |             |                         | <b>2012</b> |
|--|--------------------------------|-------------|---|-------------|-------------------------|-------------|
|  | <b>2016<sup>1</sup></b>        | <b>2016</b> | <b>Restated</b>                                   | <b>2014</b> | <b>2013<sup>3</sup></b> |             |
| <i>(in million of US\$, except per share data)</i> |                                |             | <i>(in million of R\$, except per share data)</i> |             |                         |             |

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

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





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

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

- (2) The results of our former subsidiary Cia. Metalic Nordeste, or Metalic, were excluded from net operating revenues, cost of sales and/or services, gross profit, operating expenses, other operating expenses, other operating income, financial results and income taxes and were included in “Net (loss) from discontinued operations” due to the sale of Metalic in November 2016. For further information, see “Item 4B. Business Overview— Downstream Facilities—Metalic.”
- (3) In 2013, the financial information was substantially impacted by the deconsolidation of Transnordestina Logística S.A., which we began to recognize under the equity accounting method, due to the partial spin-off and the entry into effect of the new shareholders’ agreement. For further information, see “Other operating income (expenses)” included in “Item 5A. Operating Results.”
- (4) The 2015 financial information was impacted by the business combination of CSN Mineração (former “Congonhas Minérios) as described in “Item 5A. Operating Results.”
- (5) Dividends related to the fiscal year ended December 31, 2015 were paid in 2016 before the second restatement of our financial statements as of and for the year ended December 31, 2015. As a consequence of the aforementioned second restatement, which resulted in a net loss for 2015, we recorded the payment as a payment from our profit reserve account (statutory reserve of working capital) existing at the time of the distribution. The payment was not allocated to the minimum mandatory dividends for the year ended December 31, 2015 as established at our 2016 annual shareholders’ meeting, held on April 28, 2016. For a discussion of our dividend policy and dividend and interest payments, see “Item 8A. Consolidated Statements and Other Financial Information—Dividend Policy.”

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

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

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

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

**Year ended**

| Year ended | Low | High | Average <sup>(1)</sup> | Period-end |
|------------|-----|------|------------------------|------------|
|------------|-----|------|------------------------|------------|

|                   |       |  |       |       |
|-------------------|-------|--|-------|-------|
| December 31, 2012 | 2.112 |  | 1.955 | 2.044 |
| December 31, 2013 | 2.446 |  | 2.161 | 2.343 |
| December 31, 2014 | 2.740 |  | 2.355 | 2.656 |
| December 31, 2015 | 4.195 |  | 3.338 | 3.905 |
| December 31, 2016 | 4.156 |  | 3.484 | 3.259 |

**Month ended**

| Month ended | Low | High | Average | Period-end |
|-------------|-----|------|---------|------------|
|-------------|-----|------|---------|------------|

|                |       |       |       |       |
|----------------|-------|-------|-------|-------|
| January 2017   | 3.273 |       | 3.197 | 3.127 |
| February 2017  | 3.148 |       | 3.104 | 3.099 |
| March 2017     | 3.174 |       | 3.128 | 3.168 |
| April 2017     | 3.198 |       | 3.136 | 3.198 |
| May 2017       | 3.092 | 3.381 | 3.210 | 3.244 |
| June 2017      | 3.230 | 3.335 | 3.294 | 3.307 |
| July 2017      | 3.125 | 3.318 | 3.210 | 3.130 |
| August 2017    | 3.115 | 3.197 | 3.150 | 3.146 |
| September 2017 | 3.084 | 3.192 | 3.134 | 3.167 |
| October 2017   | 3.130 | 3.279 | 3.190 | 3.276 |
| November 2017  | 3.163 | 3.291 | 3.258 | 3.261 |

**Source: Central Bank.**

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

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

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

Not required.

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

Not required.

### **3D. Risk Factors**

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

#### **Risks Relating to Brazil**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

#### **Risks Relating to Us and the Industries in Which We Operate**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- we may encounter delays, availability problems or higher than expected costs in obtaining the necessary equipment, services and materials to build and operate a project;
- our efforts to develop projects according to schedule may be hampered by a lack of infrastructure, including availability of overburden and waste disposal areas as well as reliable power and water supplies;
- we may fail to obtain, lose, or experience delays or higher than expected costs in obtaining or renewing the required permits, authorizations, licenses, concessions and/or regulatory approvals to build or continue a project; and
- changes in market conditions, laws or regulations may make a project less profitable than expected or economically or otherwise unfeasible.

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

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

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

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

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

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

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

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

***Drilling and production risks could adversely affect the mining process.***

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

- establish mineral reserves through drilling; determine appropriate mining and metallurgical processes for optimizing the recovery of metal contained in ore;
- obtain environmental and other licenses;
- construct mining, processing facilities and infrastructure required for greenfield properties; and
- obtain the ore or extract the minerals from the ore.

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



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

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

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

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

***Natural and other disasters could disrupt our operations.***

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

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

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

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

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

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

***We are exposed to the risk of litigation.***

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

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

#### **Risks Relating to our Common Shares and ADSs**

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

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

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

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

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

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

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

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

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

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

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

***A decrease in our market capitalization may increase volatility.***

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

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

## Item 4. Information on the Company

### 4A. History and Development of the Company

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

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

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

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

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

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

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

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

### General

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



*Steel*

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

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

Our production process is based on the integrated steelworks concept.

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

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

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

### ***Mining Activities***

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

### ***Logistics***

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

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

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

### ***Cement***

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

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

### ***Energy***

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

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

### **Other Information**

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

### **4B. Business Overview**

#### ***Competitive Strengths***

We believe that we have the following competitive strengths:

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

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

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

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

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

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

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

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

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

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

## **Strategies**

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

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

28

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## ***Steel***

The strategy for our steel business involves:

- A focus on the domestic market, by increasing market share in the flat steel segment and long steel market;
- An emphasis on high margin coated steel products, such as galvanized, galvalume, pre-painted and tin plate;
- Geographical diversification through our flat and long steel facilities abroad. We also intend to maintain and diversify our exports, focused on high quality products such as coated steels;
- The constant pursuit of operational excellence, by developing and implementing cost reduction projects (*e.g.*, energy efficiency) and process review programs (*e.g.*, internal logistic optimization, project development and implementation discipline);
- Exploring marketing and commercial synergies by using our flat steel distribution network and product portfolio to accelerate entrance into the domestic long steel market;
- Increasing customized services and distribution abilities through our expanding distribution network; and
- Divestment from non-strategic assets to improve capital allocation and optimize our business portfolio, such as the sale transaction of Cia. Metalic Nordeste, or Metalic, during 2016.

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

## ***Mining***

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

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

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

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

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

## ***Logistics***



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

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

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

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

### ***Cement***

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

### ***Additional Investments***

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

### **Our Steel Segment**

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

### ***Flat Steel***

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

### ***Slabs***

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

### ***Hot-Rolled Products***

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

***Cold-Rolled Products***

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

### *Galvanized Products*

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

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

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

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

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

to severe acid corrosion, like marine uses.

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

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

### ***Tin Mill Products***

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

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

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

### *Quality Management System*

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

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

### *Production Output*

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

| <b>Crude Steel Production</b> | <b>Brazil</b>                | <b>CSN</b> | <b>CSN % of Brazil</b> |
|-------------------------------|------------------------------|------------|------------------------|
|                               | <i>(In millions of tons)</i> |            |                        |
| <b>2016</b>                   | 30.2                         | 3.0        | 9.9%                   |
| <b>2015</b>                   | 33.3                         | 4.2        | 12.7%                  |
| <b>2014</b>                   | 33.9                         | 4.5        | 13.3%                  |
| <b>2013</b>                   | 34.2                         | 4.5        | 13.2%                  |
| <b>2012</b>                   | 34.7                         | 4.8        | 13.8%                  |

**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**

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

|   |     |     |     |
|---|-----|-----|-----|
| <b>Consumption of Coal for Coke Batteries</b> | 1.3 | 1.3 | 1.6 |
| <b>Consumption of Coal for PCI</b>            | 0.4 | 0.5 | 0.6 |

### *Raw Materials and Suppliers*

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

### *Iron Ore*

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

### *Coal*

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

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

### *Coke*

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

### *Limestone and Dolomite*

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



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

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

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

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

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

### *Aluminum, Zinc and Tin*

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

### *Other Raw Materials*

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

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

### *Water*

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

### *Electricity*

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

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

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

*Natural Gas*

In addition to electricity, we consume natural gas, mainly in our hot strip mill. Companhia Estadual de Gás do Rio de Janeiro S.A., or CEG Rio, which was privatized in 1997, is currently our major source of natural gas. Variations in the supply of gas can affect the level of steel production. We have not experienced any significant stoppages of production due to a shortage of natural gas. We also purchase fuel oil from Petrobras and Raízen. In 2016, the Presidente Vargas Steelworks consumed 360 million m<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 2013 and 2014, reservoirs reached their lowest level in the past ten years; consequently, the Brazilian Electricity System Operator (Operador Nacional do Sistema Elétrico), or ONS, increased the utilization of thermoelectric generation.

*Diesel Oil*

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

*Suppliers*

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

Our main raw materials suppliers are set forth below:

| <b>Main Suppliers</b>   | <b>Raw Material</b> |
|---|---------------------|
| <b>Vanomet and CSA</b>  | Slabs               |
| <b>Rio Tinto Coal, BHP, Drummond, AlphaCoal, Carbo One Limited, Jellimbah, Jim Walter Resources and Teck Coal</b> | Coal                |
| <b>CI Milpa, Sinochen, Noble and Coeclerici</b>   | Coke                |
| <b>Ibrame, Latasa, and Alumbras</b>   | Aluminum            |
| <b>Votorantim Metais (1)</b>  | Zinc                |
| <b>White Solder, ERSA, and Melt Metais</b>  | Tin                 |
| <b>Sotreq, Metso, Continental, Komatsu, Simplex, Mason, Minas Maquinas and Michelin</b>                           | Spare parts         |
| <b>Magnesita, RHI, Vesuvius and Saint Gobain</b>  | Refractory bricks   |
| <b>Ipiranga and Cosan</b>   | 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, 28 batch annealing furnaces, three continuous galvanizing lines, four continuous annealing lines exclusively for tin mill products and six electrolytic tinning lines.

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

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

**Effective Capacity**

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

***Downstream Facilities******CSN Paraná***

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

***CSN Porto Real***

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

***Metallic***

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

### *Prada*

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

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

*Companhia Siderurgica Nacional, LLC*

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

*Lusosider, Aços Planos, S.A.*

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

*CSN Distribuição*

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

*Long Steel Mills*

*SWT*

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



**Production Output - SWT**

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

***Raw Materials and Suppliers****Raw Materials and Energy Requirements*

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

*Scrap*

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

*Ferroalloys, lime and foaming coal*

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

*Rolls*

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

*Graphite electrodes*

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

*Other raw materials*

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

*Water*

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

*Electricity and Natural Gas*

Steelmaking also requires significant amounts of electricity and natural gas, for which we have supply contracts. Under normal conditions, we consume approximately 410 MW of firm guaranteed output of electric energy and 450 million m<sup>3</sup> 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, TSR  
Verbund  
E.on Ruhrgas  
RHI  
SGL, Graftec, NCK  
Siemens, Schneider, Voith  
Irle, Walzengießerei Coswig

Raw Material

Scrap  
Electric Energy  
Natural gas  
Refractory  
Electrodes  
Spare parts  
Rolls

*Facilities - SWT*

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

**Effective Capacity - SWT**

|                                   | Tons per year | Equipment in operation |
|-----------------------------------|---------------|------------------------|
| <b>Process:</b>                   |               |                        |
| <b>EAF – Electric Arc Furnace</b> | 1,100,000     | 1 furnace              |
| <b>Ladle Furnace</b>              | 1,100,000     | 1 furnace              |
| <b>Finished Products:</b>         |               |                        |
| <b>Section mill</b>               | 1,000,000     | 1 mill                 |

**Volta Redonda EAF Mill***Plant Characteristics*

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

*Steelmaking Shop*

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

*Rolling Mill*

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

**Production Output****Certain Operating Statistics****(In thousands of tons)**

|                                       | 2016 | 2015 | 2014 |
|---------------------------------------|------|------|------|
| <b>Production of:</b>                 |      |      |      |
| <b>Billets (Crude Steel)</b>          | 197  | 151  | 105  |
| <b>Long Steel (Finished Products)</b> | 186  | 131  | 93   |

*Raw Materials and Energy Suppliers*

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

**Our Mining Segment**

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

## ***Our Mines***

### *Location, Access and Operation*

#### ***Casa de Pedra***

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

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

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

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

#### ***Engenho***

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

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

***Fernandinho***

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

40

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

### ***Limestone and Dolomite Mine***

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

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

### ***Tin***

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

### ***Mineral Rights and Ownership***

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

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

### ***Casa de Pedra***

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

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



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

*Mineral Reserves*

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

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

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

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

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

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

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

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

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

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

### ***Casa de Pedra***

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

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

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

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

### ***Engenho and Fernandinho***

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

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

Snowden accepts as appropriate the estimates regarding proven and probable reserves made by us, totaling 317 million tons of iron ore for Engenho (as of December 31, 2014) at a grade of 39.48% Fe and 40.01% SiO<sub>2</sub>.

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

### ***Production***

#### *Casa de Pedra*

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

#### *Pires and Fernandinho Beneficiation Plants*

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

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

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

|  |              |              |              |
|--|--------------|--------------|--------------|
| <b>Casa de Pedra</b> <sup>(2)</sup> (Mt) | <b>21.65</b> | <b>26.24</b> | <b>29.46</b> |
| Grade (%)                                | 63.8%        | 63.8%        | 63.1%        |
| <b>Pires</b> <sup>(2)</sup> (Mt)         | <b>3.8</b>   | <b>1.6</b>   | <b>2.71</b>  |
| Grade (%)                                | 62.1%        | 63.9%        | 61.0%        |
| <b>Fernandinho</b> <sup>(2)</sup> (Mt)   | <b>0.6</b>   | <b>0.0</b>   | <b>0.0</b>   |
| Grade (%)                                | 59.5%        | -            | -            |

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

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

|   |              |              |              |
|---|--------------|--------------|--------------|
| <b>Consolidated Sales (Mt)</b>                    | <b>28.88</b> | <b>25.67</b> | <b>36.98</b> |
| <b>Consolidated Net Revenue Per Unit (US\$/t)</b> | <b>64</b>    | <b>26.91</b> | <b>35.59</b> |

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

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

## ***Distribution***

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

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

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

## **Our Logistics Segment**

Our logistics segment is comprised of railway and port facilities.

### ***Railways***

#### *Southeastern Railway System*

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

#### *Northeastern Railway System*

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

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

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



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

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

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

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

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

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

## ***Port Facilities***

### ***Solid Bulks Terminal***

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

TECAR is connected to road and rail systems across Southeastern Brazil and is one of the four port terminals that make up the Port of Itaguaí facilities. With a strategic location and a total area of 740,761 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, an internal road system, bulk storage yards, a railway looping, as well as industrial and administrative facilities.

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

### ***Container Terminal***

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

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

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

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

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

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

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

### **Our Cement Segment**

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

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

### ***Production***

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

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

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

### **Our Energy Segment**

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

Our energy related assets include:

#### *Thermoelectric Co-Generation Power Plant*

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

#### *Itá Hydroelectric Facility*

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

remaining 39.5% of the Itá hydroelectric facility.

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

48

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

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

#### *Igarapava Hydroelectric Facility*

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

### **Marketing Organization and Strategy**

#### *Flat Steel*

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

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

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

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

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

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

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



*Sales by Geographic Region*

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

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

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

**CSN – Sales of All Steel Products by Destination***(In thousands of tons and millions of R\$)*

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

(1) Sales to Mexico are included in North America.

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

*Sales by Product*

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

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

*Sales by Industry*

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

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

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

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

*Seasonality*

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

*Long Steel – SWT*

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

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

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

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

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

### ***Long Steel – Volta Redonda***

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

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

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

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

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

### **Iron Ore**

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

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

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

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

|                      | 2016          |             |                        |             | 2015          |             |                        |             | 2014          |             |                        |             |
|----------------------|---------------|-------------|------------------------|-------------|---------------|-------------|------------------------|-------------|---------------|-------------|------------------------|-------------|
|                      | Tons          | % of total  | Net Operating Revenues | % of total  | Tons          | % of total  | Net Operating Revenues | % of total  | Tons          | % of total  | Net Operating Revenues | % of total  |
| <b>Brazil</b>        | 4,120         | 11%         | 542,027                | 12%         | 539           | 2%          | 175,223                | 6%          | 138           | 1%          | 306                    | 1%          |
| <b>Export</b>        | 32,863        | 89%         | 4,039,875              | 88%         | 23,322        | 98%         | 3,012,027              | 95%         | 25,107        | 100%        | 3,802                  | 100%        |
| <b>Total</b>         | <b>36,983</b> | <b>100%</b> | <b>4,581,902</b>       | <b>100%</b> | <b>23,861</b> | <b>100%</b> | <b>3,187,250</b>       | <b>100%</b> | <b>25,245</b> | <b>100%</b> | <b>4,109</b>           | <b>100%</b> |
| <b>Exports to</b>    |               |             |                        |             |               |             |                        |             |               |             |                        |             |
| <b>Asia</b>          | 29,349        | 89%         | 3,519,713              | 87%         | 21,963        | 95%         | 2,836,505              | 95%         | 24,334        | 97%         | 3,674                  | 97%         |
| <b>North America</b> | -             | -           | -                      | -           | -             | -           | -                      | -           | -             | -           | -                      | -           |
| <b>Europe</b>        | 3,514         | 11%         | 434,378                | 11%         | 1,028         | 4%          | 132,792                | 4%          | 773           | 3%          | 127                    | 3%          |
| <b>Latin America</b> | -             | -           | -                      | -           | -             | -           | -                      | -           | -             | -           | -                      | -           |
| <b>Others</b>        | -             | -           | 85,784                 | 2%          | -             | -           | -                      | -           | -             | -           | -                      | -           |

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

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

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

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

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

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

## Cement

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

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

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

### CSN – Cement Sales Figures (In thousands of metric tons and millions of R\$)

|               | 2016  |                        | 2015  |                        | 2014  |                        |
|---------------|-------|------------------------|-------|------------------------|-------|------------------------|
|               | Tons  | Net Operating Revenues | Tons  | Net Operating Revenues | Tons  | Net Operating Revenues |
| <b>Brazil</b> | 2,814 | 491                    | 2,182 | 432                    | 2,185 | 440                    |

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





## Insurance

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

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

## Intellectual Property

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

## Competition in the Steel Industry

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

### *Competition in the Brazilian Steel Industry*

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

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

|                              | <b>2016</b>                                   | <b>2015</b>                                   | <b>2014</b>                                   |
|------------------------------|---|---|---|
|                              | <b>Production</b><br><i>(In million tons)</i> | <b>Production</b><br><i>(In million tons)</i> | <b>Production</b><br><i>(In million tons)</i> |
| <b>Gerdau<sup>(2)</sup></b>  | 6.8   | 7.0   | 7.4   |
| <b>Usiminas</b>              | 3.1   | 5.0   | 6.0   |
| <b>ArcelorMittal Tubarão</b> | 7.0   | 6.8   | 5.3   |
| <b>CSN</b>                   | 3.1   | 4.2   | 4.4   |

|                                  |             |             |             |
|----------------------------------|-------------|-------------|-------------|
| <b>ArcelorMittal Aços Longos</b> | 3.1         | 3.1         | 3.2         |
| <b>CSA</b>                       | 4.2         | 4.2         | 4.1         |
| <b>Others</b>                    | 3.9         | 1.9         | 3,4         |
| <b>Total</b>                     | <b>31.2</b> | <b>32.2</b> | <b>33.8</b> |

**Source: IABr**

54

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### ***Competitive Position — Global***

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

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

### ***Competitive Advantages of the Brazilian Steel Industry***

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

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

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

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

### **Government Regulation and Other Legal Matters**

***Environmental Regulation***

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

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

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

### *Environmental Expenditures and Claims*

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

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

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

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

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

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

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

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

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

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

TACs

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



*Other Environmental Proceedings and Liabilities*

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

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

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

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

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

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



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

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

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

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

### ***Brazil – Mining Regulation***

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

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

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

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

*Mining Concessions*

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

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

### *Mineral Rights and Ownership*

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

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

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

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

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

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

### **Antitrust Regulation**

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



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

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

### **Regulation of Other Activities**

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

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

- (i) Northeast Railway System I (operational stretch), which encompasses the stretches between the cities of São Luís – Mucuripe, Arrojado – Recife, Itabaiana – Cabedelo, Paula Cavalcante – Macau and Propiá – Jorge Lins, and is operated by our subsidiary Ferrovia Transnordestina Logística S.A, or FTL, and;
- (ii) Northeast Railway System II (under construction) which encompasses the stretches between Missão Velha – Salgueiro, Salgueiro – Trindade, Trindade – Eliseu Martins, Salgueiro – Porto de Suape and Missão Velha – Porto de Pecém, and is operated by our subsidiary Transnordestina Logística S.A, or TLSA.

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

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

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

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



### *Proceedings Related to Protectionist Measures*

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

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

#### *United States*

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

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

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

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

#### *European Union*

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

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

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

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

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

### *Canada*

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

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

## **Overview of Steel Industry**

### ***World Steel Industry***

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

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

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

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

### ***Brazilian Steel Industry***

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

### *A Privatized Industry*

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

### *Domestic Demand*

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

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

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

### *Market Participants*

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

### *Capacity Utilization*

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

*Exports/Imports*

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

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

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

#### 4C. Organizational Structure

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

#### 4D. Property, Plant and Equipment

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

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

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

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



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

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

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

(3) Property owned by our controlled company CSN Minera Ação (87.52%).

(4) 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.

- (5) Based on the Manifesto de Mina. See “Item 4B. Business Overview” Government Regulation and Other Legal Matters”Mining Concessions.”
- (6) Information on equipment fleet installed annual ROM capacity.
- (7) Property owned by our controlled company MinÃ©rios Nacional (100%).
- (8) Property 29.5% owned by us.
- (9) Property 17.9% owned by us.
- (10) Pledged pursuant to various legal proceedings, mainly related to tax claims.

For information on environmental issues with respect to some of the facilities described above, see “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, ERSÁ, CSN LLC and SWT facilities, our iron ore, limestone and dolomite mines, the power generating facilities in which we have an ownership interest, and the main port used by us to export steel products and import coal and coke, as well as the main railway connections.

## Acquisitions and Dispositions

### *Usiminas*

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

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

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

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

### *Namisa / CSN Mineração*

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

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

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

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

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

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

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

### ***Metalic***

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

### **Capital Expenditures**

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

- Cement: R\$657 million mainly for completion of the new clinker plant;
- Steel: R\$588 million, mainly for sustaining investments in coke plants at UPV (Presidente Vargas plant), environmental projects at UPV, general repair for resuming operations of Blast Furnace No.2, technological

modernization projects at UPV and maintenance projects;

- Mining: R\$257 million, mainly sustaining investment projects;
- Other investments: R\$130 million for running investments in other operations (such as FTL and Tecon) and corporate projects (such as IT).

### **Planned Investments**

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

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

- Steel: R\$467 million, mainly for sustaining investments in coke plants UPV, environmental projects, technological modernization projects at the UPV plant, and maintenance projects in other units;
- Mining (projects at CSN Mineração, including Tecar): R\$343 million, mainly for running projects in iron ore beneficiation, maintenance of tailings dams, expansions studies for Phase 60 Mtpa in Tecar (engineering and environmental studies) and sustaining investment projects in the units;

- Cement: R\$96 million, especially sustaining projects in the units;
- Other investments: R\$94 million for sustaining investments in other operations (such as FTL and Tecon) and corporate projects (such as IT);

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

### ***Steel***

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

### ***Mining***

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

### ***Cement***

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

### ***Additional Investments***



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

#### **4E. Unresolved Staff Comments**

None.

#### **Item 5. Operating and Financial Review and Prospects**

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

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

70

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## (a) Business Combination

1. The Business Combination involving CSN Mineração and Namisa;
2. Adjustments to the participation of the non-controlling interest of CSN Mineração resulting from a change in the interpretation of the application of the IFRS 3 accounting pronouncement.

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

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

## 5A. Operating Results

### Overview

#### *Brazilian Macro-Economic Scenario*

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

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

|  | <b>Year ended December 31,</b> |             |             |
|--|--------------------------------|-------------|-------------|
|  | <b>2016</b>                    | <b>2015</b> | <b>2014</b> |
| GDP growth   | (3.6%)                         | (3.8%)      | 0.1%        |
| Inflation (IPCA) <sup>1</sup>  | 6.3%                           | 10.7%       | 6.4%        |
| Inflation (IGP-M) <sup>2</sup>   | 7.2%                           | 10.5%       | 3.7%        |
| CDI <sup>3</sup>   | 14.0%                          | 13.2%       | 10.8%       |
| Appreciation (depreciation) of the <i>real</i> against the U.S. dollar | (4.2%)                         | (29.5%)     | (8.2%)      |
| Exchange rate at the end of period (U.S.\$1.00)                        | R\$3.259                       | R\$3.904    | R\$2.656    |
| Average exchange rate (U.S.\$1.00)                                     | R\$3.483                       | R\$3.338    | R\$2.357    |
| Unemployment rate  | 11.5%                          | 8.5%        | 6.8%        |

**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).

(4) The unemployment rate (PNAD) is measured by IBGE.

*Steel*

For the years ended December 31, 2014, 2015 and 2016, our steel segment represented 71%, 73% and 67% of our net revenues, respectively, and 62%, 59% and 47% of our gross profit, respectively. In 2016, 61% of our steel revenues were in Brazil and 39% were abroad, as compared to 60% and 40%, respectively, in 2015, and 75% and 25%, respectively, in 2014.

According to the World Steel Association (WSA), global crude steel production totaled 1.6 billion tons in 2016, 0.8% more than 2015, with China responsible for 808 million tons, or 50% of the global output, recording an increase of 1.2%. Japan's crude steel remained stable totaling 105 million tons in 2016. In the European Union, production reached 162 million tons in 2016, corresponding to a decrease of 2.3% compared to 2015. In the U.S., crude steel production totaled 78 million tons in 2016, stable when compared to 2015. Existing global capacity usage increased by 2.8% over the year to 68.1%.

According to the Brazilian Steel Institute (IABr), domestic crude steel production was 30.2 million tons in 2016, 9.2% less than in 2015, while rolled steel output totaled 20.9 million tons, down by 7.7% in the same period.

Apparent domestic steel product consumption in Brazil amounted to 18.3 million tons in 2016, 14% less than in 2015, while domestic sales decreased 9% to 16.5 million tons. Annual imports to Brazil were 1.9 million tons, 41% less than the year before, and exports were down by 2% to 13.4 million tons.

### ***Mining***

For the years ended December 31, 2014, 2015 and 2016, our mining segment represented, 25%, 21% and 27% of our net revenues, respectively, and 25%, 25% and 33% of our gross profit, respectively. In 2016, 88% of our mining revenues came from exports and 12% from the domestic market, as compared to 95% and 5%, respectively, in 2015, and 93% and 7%, respectively, in 2014. In 2016, the seaborne iron ore market made a slight recovery after a strong downward price pressure due to the increased supply capacity in Australia and Brazil in the previous years. In response to the slowdown in macroeconomic indicators that stretched from 2015 to mid-February 2016 when iron ore prices reached US\$42.90/dmt, the Chinese government promoted credit expansion and stimulated investments in steel-intensive sectors such as infrastructure and construction.

Moreover, the closure of low-efficiency mills resulted in an increase in the utilization capacity, which, coupled with higher steel demand, led to improved margins and higher iron ore prices. In this context, iron ore prices increased 5.3% in 2016 compared to 2015, reaching an average of US \$ 58.45/dmt (Platts, Fe 62%).

### ***Logistics, Port Logistics, Cement and Energy***

The performance of our logistics, cement and energy segments are directly related to the performance of our steel and mining segments. For the years ended on December 31, 2014, 2015 and 2016, these segments represented an aggregate of 13%, 13% and 13% of our net revenues, respectively, and an aggregated of 15%, 17% and 13% of our gross profit, respectively. A material portion of the revenues in these segments is derived from our steel and mining operations, which utilize our logistics network and energy output.

### ***Specific Events Affecting our Results of Operations***

#### ***CSN MineraÃ§Ã£o (former Congonhas MinÃ©rios S.A.)***

On December 11, 2014, the Board of Directors of CSN approved the establishment of a strategic alliance with an Asian Consortium comprised by the companies ITOCHU Corporation, JFE Steel Corporation, POSCO, Ltd., Kobe Steel Ltd., Nisshin Steel Co, Ltd. and China Steel Corp. (â€œAsian Consortiumâ€ ).

The transaction consisted of a business combination through which the Asian Consortium contributed equity interest in Namisa into CSN MineraÃ§Ã£o S.A, a mining subsidiary of CSN. Those excluded assets were net assets and mining rights of Fernandinho, Cayman and Pedras Pretas.

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After the corporate restructuring, CSN MineraÃ§Ã£o became the holder of the commercial establishment related to CSN's iron ore mine Casa de Pedra, CSN's 60% equity interest in Namisa, 8,63% direct interest in MRS, as well as the right to manage and operate the solid bulk terminal of TECAR in ItaguaÃ- Port (TECAR). The excluded assets Fernandinho, Cayman and Pedras Pretas were contributed to MinÃ©rios Nacional S.A.

The transaction was concluded by the signing of a shareholders' agreement by the shareholders of CSN MineraÃ§Ã£o, on November 30, 2015.

The following steps were carried out in order to conclude the transaction:

- Payment of dividends by Namisa before the closing of the transaction, amounting to US\$1.4 billion (equivalent to R\$5.4 billion);
- Disproportionate spin-off of certain assets of NAMISA, such as the mining rights of Fernandinho, Cayman and Pedras Pretas, as well as the net assets of Fernandinho, for subsequent contribution to Minérios Nacional, a wholly-owned subsidiary of CSN. After the spin off, CSN held a 59.76% interest in Namisa;
- Restructuring of CSN Mineração through the contribution, by CSN, of the assets and liabilities related to Casa de Pedra, the rights to operate TECAR, 59.76% of Namisa's shares post-split of the excluded assets, 8.63% of MRS' shares, and US\$850 million in debt (equivalent to R\$3,370 million, as presented in Note 3 to our consolidated financial statements);
- Liquidation of the pre-existing agreements with Namisa for supply of high-silicon and low-silicon content ROM (Run of Mine), port services and ore beneficiation;
- Acquisition, by CSN Mineração, of the Namisa shares post-split of the excluded assets held by the Asian Consortium, resulting in the merger of Namisa into CSN Mineração;
- Signing of a shareholders' agreement ("Shareholders' Agreement") by the shareholders of CSN Mineração;
- Payment by CSN of US\$680 million relating to the acquisition of 4% of the shares held by the Asian Consortium in CSN Mineração and additional US\$ 27 million relating to the acquisition of 0.16% of the shares held by the Asian Consortium in CSN Mineração, amounting to US\$ 707 million (equivalent to R\$2.7 billion).

We applied IFRS 3 to record the November 2015 transaction, as there was a change of control of Namisa on November 30, 2015. Before the acquisition, Namisa was spin-off to set apart certain assets, such as the mining rights of Fernandinho, Cayman and Pedras Pretas, as well as the net assets of Fernandinho, which were transferred to Minérios Nacional, and the main assets were acquired by CSN Mineração.

As a result of the step acquisition, we recognized a gain of R\$3,790 million in the value of Namisa, being 59.76% interest in Namisa after the spin-off of the excluded assets amounting to R\$2,516 million and 60% interest in Namisa before the spin-off which amounted to R\$1,274 million for the excluded assets (Fernandinho, Cayman and Pedras Pretas mines). In addition, as a result of the application of items B51 and B52 of IFRS 3, we recognized a loss of R\$493 million equivalent to 40.24% of the result of the termination of the then existing agreements between Namisa and CSN Mineração. We also recorded a tax expense of R\$266 million on the net gains from the transaction mentioned above. See further details in Note 2ab and Note 3 to our consolidated financial statements.

Additionally, there was a change in our interest in CSN Mineração without representing a loss of control in CSN Mineração. Our participation decreased from 100% to 87.52%. According to IFRS 10, this change should be classified as an equity transaction and the resulting gain or loss on the new value of the participation must be recorded directly in equity. Because of this percentage change, we recorded a gain of R\$2,943 million.

The sum of the net gains recorded in our results and the gains recorded in our shareholders' equity was a total increase in our shareholders' equity of R\$5,975 million.

For further details, see Note 3 to our consolidated financial statements included in this Annual Report.

## 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:

|  | 2016   | 2015   | 2014   |
|--|--------|--------|--------|
| <b>Brazilian Market (in thousands of tons)</b> |        |        |        |
| <i>Total Flat and Long Steel</i>               |        |        |        |
| <b>Production</b>                              | 30,212 | 33,256 | 24,917 |
| <b>Apparent Consumption</b>                    | 18,254 | 15,734 | 25,606 |
| <i>Hot-Rolled Coils and Sheets</i>             |        |        |        |
| <b>Production</b>                              | 2,601  | 4,715  | 4,541  |
| <b>Apparent Consumption</b>                    | 2,654  | 2,980  | 3,602  |
| <i>Cold-Rolled Coils and Sheets</i>            |        |        |        |
| <b>Production</b>                              | 1,861  | 2,244  | 2,516  |
| <b>Apparent Consumption</b>                    | 1,993  | 2,299  | 2,843  |
| <i>Galvanized Sheets</i>                       |        |        |        |
| <b>Production</b>                              | 2,804  | 2,108  | 2,887  |
| <b>Apparent Consumption</b>                    | 2,804  | 2,874  | 3,588  |
| <i>Tin Plates</i>                              |        |        |        |
| <b>Production</b>                              |        | 576    | 553    |
| <b>Apparent Consumption</b>                    |        | 497    | 534    |
| <b>Global Market (in millions of tons)</b>     |        |        |        |
| <b>Crude Steel Production</b>                  | 1,628  | 1,622  | 1,670  |

### *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 Volumes (1) |              |              |                    |             |             |             |             |             |
|------------------------------|-------------------|--------------|--------------|--------------------|-------------|-------------|-------------|-------------|-------------|
|                              | Tons              |              |              | % of Sales Volumes |             |             |             |             |             |
|                              | 2016              | 2015         | 2014         | In Market*         |             |             | Total       |             |             |
|                              | 2016              | 2015         | 2014         | 2016               | 2015        | 2014        | 2016        | 2015        | 2014        |
| <b><u>Domestic Sales</u></b> |                   |              |              |                    |             |             |             |             |             |
| Slabs                        | -                 | 6            | 11           | 0%                 | 0%          | 0%          | 0%          | 0%          | 0%          |
| Hot-Rolled                   | 922               | 1,065        | 1,521        | 33%                | 36%         | 41%         | 19%         | 21%         | 29%         |
| Cold-Rolled                  | 491               | 556          | 682          | 18%                | 19%         | 18%         | 10%         | 11%         | 13%         |
| Galvanized                   | 826               | 818          | 1,028        | 30%                | 28%         | 28%         | 17%         | 16%         | 20%         |
| Tin Plate                    | 370               | 363          | 423          | 13%                | 12%         | 11%         | 8%          | 7%          | 8%          |
| Long steel                   | 176               | 161          | 52           | 6%                 | 5%          | 1%          | 4%          | 3%          | 1%          |
| <b>Subtotal</b>              | <b>2,784</b>      | <b>2,968</b> | <b>3,718</b> | <b>100%</b>        | <b>100%</b> | <b>100%</b> | <b>57%</b>  | <b>59%</b>  | <b>72%</b>  |
| <b><u>Sales abroad</u></b>   |                   |              |              |                    |             |             |             |             |             |
| Slabs                        | -                 | -            | -            | 0%                 | 0%          | 0%          | 0%          | 0%          | 0%          |
| Hot-Rolled                   | 114               | 235          | 53           | 5%                 | 12%         | 4%          | 2%          | 5%          | 1%          |
| Cold-Rolled                  | 89                | 204          | 65           | 4%                 | 10%         | 4%          | 2%          | 4%          | 1%          |
| Galvanized                   | 938               | 717          | 481          | 45%                | 35%         | 33%         | 19%         | 14%         | 9%          |
| Tin Plate                    | 158               | 141          | 115          | 8%                 | 7%          | 8%          | 3%          | 3%          | 2%          |
| Long steel                   | 775               | 724          | 746          | 37%                | 36%         | 51%         | 16%         | 15%         | 14%         |
| <b>Subtotal</b>              | <b>2,073</b>      | <b>2,022</b> | <b>1,460</b> | <b>100%</b>        | <b>100%</b> | <b>100%</b> | <b>43%</b>  | <b>41%</b>  | <b>28%</b>  |
| <b>Total Sales</b>           |                   |              |              |                    |             |             |             |             |             |
| Slabs                        | 0                 | 6            | 11           |                    |             |             |             |             |             |
| Hot-Rolled                   | 1,035             | 1,301        | 1,574        |                    |             |             |             |             |             |
| Cold-Rolled                  | 580               | 760          | 747          |                    |             |             |             |             |             |
| Galvanized                   | 1,763             | 1,535        | 1,509        |                    |             |             |             |             |             |
| Tin Plate                    | 527               | 504          | 538          |                    |             |             |             |             |             |
| Long steel                   | 951               | 885          | 798          |                    |             |             |             |             |             |
| <b>Total</b>                 | <b>4,857</b>      | <b>4,990</b> | <b>5,177</b> |                    |             |             | <b>100%</b> | <b>100%</b> | <b>100%</b> |

\* of Sales Volume in Market means the participation of each line of product into the group of domestic sales and sales abroad.

|                              | Net Operating Revenues <sup>(1)</sup> |              |              |                             |             |             |            |            |            |
|------------------------------|---------------------------------------|--------------|--------------|-----------------------------|-------------|-------------|------------|------------|------------|
|                              | In millions of R\$                    |              |              | % of Net Operating Revenues |             |             |            |            |            |
|                              | 2016                                  | 2015         | 2014         | In Market*                  |             |             | Total      |            |            |
|                              | 2016                                  | 2015         | 2014         | 2016                        | 2015        | 2014        | 2016       | 2015       | 2014       |
| <b><u>Domestic Sales</u></b> |                                       |              |              |                             |             |             |            |            |            |
| Slabs                        | -                                     | 6            | 11           | 0%                          | 0%          | 0%          | 0%         | 0%         | 0%         |
| Hot-Rolled                   | 1,630                                 | 1,789        | 2,769        | 24%                         | 27%         | 33%         | 15%        | 16%        | 25%        |
| Cold-Rolled                  | 1,020                                 | 1,060        | 1,411        | 15%                         | 16%         | 17%         | 9%         | 10%        | 13%        |
| Galvanized                   | 2,215                                 | 1,991        | 2,609        | 33%                         | 30%         | 31%         | 20%        | 18%        | 23%        |
| Tin Plate                    | 1,646                                 | 1,475        | 1,589        | 24%                         | 22%         | 19%         | 15%        | 13%        | 14%        |
| Long steel                   | 303                                   | 291          | 105          | 4%                          | 4%          | 1%          | 3%         | 3%         | 1%         |
| Subtotal                     | <b>6,815</b>                          | <b>6,612</b> | <b>8,493</b> | <b>100%</b>                 | <b>100%</b> | <b>100%</b> | <b>61%</b> | <b>60%</b> | <b>75%</b> |
| <b><u>Sales abroad</u></b>   |                                       |              |              |                             |             |             |            |            |            |
| Slabs                        | -                                     | -            | -            | 0%                          | 0%          | 0%          | 0%         | 0%         | 0%         |
| Hot-Rolled                   | 147                                   | 386          | 81           | 3%                          | 9%          | 3%          | 1%         | 4%         | 1%         |
| Cold-Rolled                  | 153                                   | 403          | 124          | 3%                          | 9%          | 5%          | 1%         | 4%         | 1%         |
| Galvanized                   | 2,249                                 | 1,734        | 1,009        | 51%                         | 40%         | 37%         | 20%        | 16%        | 9%         |
| Tin Plate                    | 389                                   | 421          | 280          | 9%                          | 10%         | 10%         | 3%         | 4%         | 2%         |
| Long steel                   | 1,451                                 | 1,388        | 1,269        | 33%                         | 32%         | 46%         | 13%        | 13%        | 11%        |
| Subtotal                     | <b>4,390</b>                          | <b>4,332</b> | <b>2,764</b> | <b>100%</b>                 | <b>100%</b> | <b>100%</b> | <b>39%</b> | <b>40%</b> | <b>25%</b> |
| <b>Total Sales</b>           |                                       |              |              |                             |             |             |            |            |            |
| Slabs                        | -                                     | 6            | 11           |                             |             |             |            |            |            |
| Hot-Rolled                   | 1,777                                 | 2,175        | 2,849        |                             |             |             |            |            |            |
| Cold-Rolled                  | 1,174                                 | 1,463        | 1,535        |                             |             |             |            |            |            |
| Galvanized                   | 4,465                                 |              |              |                             |             |             |            |            |            |

|                   |               |               |               |  |             |                         |
|-------------------|---------------|---------------|---------------|--|-------------|-------------------------|
|                   |               | 3,725         | 3,618         |  |             |                         |
| <b>Tin Plate</b>  | 2,035         |               |               |  |             |                         |
|                   |               | 1,896         | 1,869         |  |             |                         |
| <b>Long steel</b> | 1,755         |               |               |  |             |                         |
|                   |               | 1,679         | 1,375         |  |             |                         |
| <b>Total</b>      | <b>11,205</b> |               |               |  | <b>100%</b> | <b>100%</b> <b>100%</b> |
|                   |               | <b>10,944</b> | <b>11,257</b> |  |             |                         |

<sup>1</sup>% of Sales Volume in Market means the participation of each line of product into the group of domestic sales and sales abroad.

### Effects of Exchange Rate Fluctuations

Our export revenues are substantially denominated in U.S. dollars and 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 depreciation of the Brazilian *real* against the U.S. dollar has the following effects on the results of our operations:

- Domestic revenues tend to be lower (in comparison with prior years) and this effect partially offset to the extent to which we sell more products than usual in 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 our exposure to U.S. dollar-denominated debt is not protected. However, to the extent our future export transactions are hedged by our U.S. dollar denominated debt, our foreign exchange variation generated from the debt used as a hedge instrument is recognized directly in net equity as Other Comprehensive Income and will be charged against income at the time the future export transactions occur.

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

- Foreign revenues tend to be lower (in comparison with prior years) and this effect is partially offset 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 expense is reduced to the extent to which our exposure to U.S. dollar-denominated debt is not protected. However, to the extent our future export transactions are hedged by our U.S. dollar denominated debt, our foreign exchange variation generated from the debt used as a hedge instrument is recognized directly in net equity as Other Comprehensive Income and will be charged against income at the time the future export transactions occur.

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 may use 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**

In 2013, the IGP-M inflation index increased 5.9% and in 2014, 2015, and in 2016 it increased 3.7%, 10.5% and 7.2%, respectively, driven by domestic factors (including the increase in regulated prices, such as gasoline and energy) as well external factors such as the strength of the U.S. dollar.

Inflation also affects our financial performance by increasing 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 indices. In addition, a significant portion of our *real*-denominated debt bears interest based on the Interbank Deposit Certificate (*Certificado 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:

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

We are currently self-sufficient regarding the iron ore used in our steel production except for pellets. The iron ore required is extracted from CSN Mineração mines, which in 2016 amounted to approximately 4.1 million tons of its total iron ore production of approximately 32.2 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 2016, 2015 and 2014, these costs were R\$515 million, R\$377 million and R\$422 million, respectively.

After the closing of the transaction between CSN and the Asian Consortium, the cost of iron ore regarding our steel production is recorded as of December 2015 at adjusted market prices and conditions, instead of its extraction cost plus transport from the mine, as our mining operations are concentrated in our controlled company, CSN Mineração, which will sell iron ore to CSN to produce steel. Details of the transaction between CSN and the Asian Consortium and related conditions precedent for closing are described on Item “4D. Property, Plant and Equipment,” Acquisitions and Dispositions.

### **Critical Accounting Estimates**

We prepared our consolidated financial statements as of and for the year ended December 31, 2016 and 2015, 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.

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 assessed 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 discounted future cash flows expected to be generated by the asset.

If the carrying amount of a cash generating unit exceeds its estimated future cash flows, an impairment loss is recognized in the amount by which the carrying amount of the asset exceeds the greater of the value in use or fair value of the cash generating unit.

A determination of the value in use or fair value of a cash generating unit 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.

78

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Assets that have an indefinite useful life, such as goodwill, are not subject to amortization and are assessed 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 assessed 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, 2016, we owned, directly and indirectly, 20.86% of the preferred shares (USIM5) and 15.19% 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, 2016.

### **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.

The useful lives are reviewed every fiscal year for all of our units. See further details in Note 11 to our consolidated financial statements.

### **Fair value of business combinations**

The acquisition method is used to account for each business combination that we conduct. The payment obligation transferred by acquiring an entity is measured by the fair value of the assets transferred, liabilities incurred and equity instruments issued. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement, where applicable. Acquisition-related costs are recognized in profit or loss for the year, as incurred. Identifiable assets acquired and liabilities assumed in a business combination are initially measured at their fair values at the acquisition date.

## 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 "Financial income" and "Financial expenses." We use derivatives for hedging purposes. We apply hedge accounting on our cash flow hedge in order to protect ourselves against exposure to changes in cash flows due to foreign currency risk associated with our recognized debt and with highly probable forecast transactions that may affect our net results. Our hedging instrument are non-derivative monetary items. Therefore, the effective portion of the foreign exchange gains and losses are accounted for in other comprehensive income. The ineffective portion of the gain or loss on the hedging instrument, if any, is accounted for in income (loss). 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. Our net obligation regarding defined pension benefit plans is calculated individually for each plan by estimating the value of the future benefit that the employees accrue in return for services provided in the current period and in prior periods; such benefit is discounted to its present value. The discount rate is the yield presented at the end of the reporting period for top line debt securities whose maturity dates approximate the terms and conditions of our obligations and which are denominated in the same currency as the one in which it is expected that the benefits will be paid. The calculation is made annually by a qualified actuary using the projected unit credit method.

We 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 our 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.

Annually, CSN performs a technical study to demonstrate if the generation of future taxable profits support the realization of tax credits. This study is prepared at entity level, in accordance with the Brazilian tax legislation, and substantially considers our projections (98% of the consolidated amount) since our controlled companies do not have material credits for purposes of this study. We engage in the following businesses:

- Flat Steel Brazil;

- Long Steel Brazil;
- Cement;

80

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The deferred tax assets on tax losses and temporary differences refers mainly to the following:

| Nature                       | Description   |
|------------------------------|---|
| Tax losses                   | We recently began incurring tax losses, mainly due to high financial expenses since all of our loans and financings are on this level.  |
| Exchange difference expenses | Since 2012, we have opted for taxation on a cash basis. We have operated without a taxable profit, so it would not make sense to use this deductibility on an accrual basis. As a result of the cash basis tax treatment, taxes are only due and expenses are only deductible at the time of debt settlement. |
| Losses on Usiminas shares    | The losses on Usiminas shares are recognized on an accrual basis, but a taxable event will occur only at the time of divestment, which we expect to occur during the period projected to compensate for deferred taxes.   |
| Other provisions             | We recognize various accounting provisions on an accrual basis, but their taxation occurs only at the time of their realization. This includes provisions for contingencies, impairment losses, environmental liabilities, etc.   |

The study was prepared based on our long-term business plan, which covers a period for which our management can reasonably make estimations. It considered several scenarios, which varied according to different macroeconomic and operating assumptions.

The model for projection of taxable profit considers two main indicators:

- Pre-Tax Profit, reflecting our projected EBITDA plus depreciation, other income and expenses and financial income (expenses); and
- Taxable Profit, which is our pre-tax profit plus (minus) expenses and income items that are taxable at a time different from the time obtained on an accrual basis (temporary differences).

Taxable profit is obtained considering adjustments to pre-tax profits for the following main items:

- Foreign Exchange differences: are expected to be offset against future profits based on the original in liquidation debts owed to third parties and rescheduling of intercompany debts (to match the periods of greater profitability);
  
- Losses on Usiminas: the model assumed using the tax assets at the time of sale of the preferred shares (and realization of losses), exclusively;
  
- Other provisions: in view of the unpredictability of the occurrence of losses for which we have recorded provisions, we assumed an even 10% utilization per year; and
  
- Tax loss: utilization is limited under Brazilian law to 30% of the taxable income in a given year. Under Brazilian law income tax losses do not expire and may be used to offset future taxable income.

In addition, we performed a sensitivity analysis of tax credits utilization considering changes in macroeconomic assumptions, operational performance and liquidity events.

On the other hand, as a negative factor, CSN has experienced income tax losses in most of the last five years resulting from the deterioration of the Brazilian political and macroeconomic environment, as well as due to the growth of financial leverage, which has unbalanced the relationship between operating and financial results.

In summary, the main positive and negative evidence we considered in making our projections were:

- i. Positive aspects: Operating profit, non-expiration on tax losses benefit and extinguishment of the financial expenses arising from the elimination of the pre-existing relationship between Namisa and CSN, and dividends to be received from CSN Mineração.
  
- ii. Negative aspects: history of tax losses, substantial cash generation used for the payment of debts and increases in iron ore costs since the business combination, when we started purchasing iron ore at market price from CSN Mineração and, pursuant to the Brazilian legislation, the utilization of the tax loss is limited to 30% of the taxable profit in a year.

The existence of tax losses generated in the most recent years is objectively verifiable material negative evidence, and, consequently, more weight is given to this evidence than to others which may have subjectivity features, according to the interpretation of IAS 12 standard.

The projections for future taxable profits for 2015 that supported the recording of deferred tax credits attributed an important weight to the sale of certain non-core assets whose technical reflection during 2016 indicated that the corresponding sales would not be subject to inclusion in these projections since they would be out of our management's control. This understanding reduced the future taxable base for the period estimated in these projections.

Therefore, we do not believe there is sufficiently strong evidence to support the recording of tax credits, limiting their recognition to 30% of deferred tax liabilities.

### **Provision for risks, contingencies and disputed taxes**

We record provisions for risks 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. 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. For further information on the judicial and administrative proceedings in which we are involved, see “Item 8A. Consolidated Statements and Other Financial Information—Legal Proceedings.”

### **Allowance for doubtful accounts**

We consider an allowance for doubtful accounts 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.

The tangible assets that are mine-specific, are depreciated over the shorter of the normal useful lives of such assets or the useful life of the mine.

Exploration expenditures are recognized as expenses until the viability of mining activities is established, after this period the subsequent development costs are capitalized. Exploration and valuation expenditures include:

- Research and analysis of historical data related to area exploration;
- Topographic, geological, geochemical and geophysical studies;
- Determine the mineral asset’s volume and quality/grade;
- Examine and test the extraction processes and methods;



- Topographic surveys of transportation and infrastructure needs;
- Market and financial studies.

The development costs of new mineral deposits or capacity expansion in mine operations are capitalized and amortized using the produced (extracted) units method based on the probable and proven ore quantities.

The development stage includes:

- Drillings to define the ore body;
- Access and draining plans;
- Advance removal of overburden (top soil and waste material removed prior to initial mining of the ore body) and waste material (non-economic material that is intermingled with the ore body).

Stripping costs (the costs associated with the removal of overburden and other waste materials) incurred during the development of a mine, before production commences, are capitalized as part of the depreciable cost of developing the property. Such costs are subsequently amortized over the useful life of the mine based on proven and probable reserves.

Stripping costs in the production phase are included in the cost of the inventory produced, except when a specific extraction campaign is made to access deeper deposits than of the ore body. In these cases, costs are capitalized and taken to noncurrent assets when the mineral ore deposit is extracted and are amortized over the useful life of the ore body.

### **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, 2016, 2015 and 2014, we capitalized borrowing costs amounting to R\$215.8 million, R\$166.4 million and R\$165.8 million, respectively. These costs are basically estimated for the cement, mining and long steel projects, mainly relating to: our new integrated cement plant, (ii) the Casa de Pedra expansion (iii) and Tecar.

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

The standards, amendments to standards and IFRS interpretations issued by the IASB that are not yet effective and were not early adopted by the Group for the year ended December 31, 2016, are described in 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, 2016, 2015 and 2014:

| Income Statement Data:   | Year Ended December 31,                             |  |                               |                |
|--|---|--|-------------------------------|----------------|
|  | 2016 <sup>1</sup>                                   | 2016   | 2015 <sup>2</sup><br>Restated | 2014           |
|  | <i>(in millions of US\$, except per share data)</i> | <i>(in millions of R\$, except per share data)</i> |                               |                |
| <b>Net operating revenues</b>                                    | <b>5,262</b>  | <b>17,149</b>                                      | <b>15,262</b>                 | <b>16,126</b>  |
| Cost of products sold  | (3,878)   | (12,640)   | (11,740)                      | (11,592)       |
| <b>Gross Profit</b>  | <b>1,384</b>  | <b>4,509</b>                                       | <b>3,522</b>                  | <b>4,534</b>   |
| <b>Operating expenses</b>  |   |  |                               |                |
| Selling  | (521)   | (1,697)  | (1,430)                       | (1,042)        |
| General and Administrative                                       | (159)   | (518)  | (470)                         | (438)          |
| Equity in results of affiliated companies                        | 20  | 65   | 1,160                         | 331            |
| Other Expenses   | (330)   | (1,077)  | (1,341)                       | (657)          |
| Other Income <sup>3</sup>  | 203   | 663  | 3,610                         | 90             |
| <b>Total <sup>3</sup></b>  | <b>(787)</b>  | <b>(2,564)</b>                                     | <b>1,529</b>                  | <b>(1,716)</b> |
| <b>Operating income</b>  | <b>596</b>  | <b>1,945</b>                                       | <b>5,051</b>                  | <b>2,818</b>   |
| <b>Non-operating income (expenses), net</b>                      |   |  |                               |                |
| Financial Income   | 197   | 644  | 488                           | 172            |
| Financial expenses   | (971)   | (3,166)  | (3,853)                       | (3,253)        |
| <b>Income Before Taxes</b>                                       | <b>(178)</b>  | <b>(577)</b>                                       | <b>1,686</b>                  | <b>(263)</b>   |
| <b>Income Tax</b>  |   |  |                               |                |
| Current  | (63)  | (206)  | (136)                         | (528)          |
| Deferred   | (18)  | (60)   | (2,768)                       | 679            |
| <b>Net income from continuing operations</b>                     | <b>(259)</b>  | <b>(843)</b>                                       | <b>(1,218)</b>                | <b>(112)</b>   |
| <b>Net income from discontinued operations</b>                   | <b>(3)</b>  | <b>(10)</b>  | <b>2</b>                      | <b>-</b>       |
| <b>Net Income/Loss for the period</b>                            | <b>(262)</b>  | <b>(853)</b>                                       | <b>(1,215)</b>                | <b>(112)</b>   |
| <b>Net loss attributable to noncontrolling interest</b>          | <b>25</b>   | <b>82</b>  | <b>(2)</b>                    | <b>(7)</b>     |
| <b>Net income attributable to Companhia Siderúrgica Nacional</b> | <b>(287)</b>  | <b>(935)</b>                                       | <b>(1,213)</b>                | <b>(105)</b>   |

|                                   |           |           |           |           |
|-----------------------------------|-----------|-----------|-----------|-----------|
| Basic earnings per common share   | (0.19287) | (0.62857) | (0.89597) | (0.07941) |
| Diluted earnings per common share | (0.19287) | (0.62857) | (0.89597) | (0.07941) |

- (1) Translated for the convenience of the reader only at the commercial selling rate at closing for the purchase of U.S. dollars, as reported by the Brazilian Central Bank, as of December 31, 2016, of R\$3.259 to \$US1.00.
- (2) Metalic results were excluded from net operating revenues, cost of sales and/or services, gross profit, operating expenses, other operating expenses, other operating income, financial results and income taxes and were included in “Net (Loss) from discontinued operations” due to the sale of Metalic in November 2016 to Can-Pack Brasil Indústria de Embalagen Ltda. For further information, see “Item 4B. Business Overview—Downstream Facilities—Metalic.”
- (3) The 2015 financial information was impacted by the business combination of CSN Mineração (former “Congonhas Minérios) as described in “Item 5A. Operating Results.”

*Year 2016 Compared to Year 2015 (Restated)*

We maintain integrated operations in five business segments: steel, mining, logistics, cement and energy. We manage and control the performance of our various business segments, considering the proportional interest in our jointly controlled entities, MRS Logística S.A., and CBSI - Companhia Brasileira de Serviços de Infraestrutura, reflected in the figures described below, which may differ from those accounted according to IFRS.

Since December 1, 2015, we have been consolidating Namisa, which was recorded under the equity method until November 30, 2015. On December 31, 2015, Namisa merged into CSN Mineração (formerly named Congonhas Minérios S.A.).

Our consolidated results for the years ended December 31, 2016 and 2015, by business segment are presented below:

| <b>R\$ millions</b>                           |                |                |                       |                          |               |               |                     | <b>Year Ended<br/>December<br/>31,2016</b> |
|---|----------------|----------------|-----------------------|--------------------------|---------------|---------------|---------------------|--|
| <b>Consolidated Results</b>                   | <b>Steel</b>   | <b>Mining</b>  | <b>Port Logistics</b> | <b>Railway Logistics</b> | <b>Cement</b> | <b>Energy</b> | <b>Eliminations</b> | <b>Consolidated</b>                        |
| <b>Net operating revenues</b>                 | <b>11,516</b>  | <b>4,582</b>   | <b>208</b>            | <b>1,320</b>             | <b>491</b>    | <b>269</b>    | <b>(1,236)</b>      | <b>17,149</b>                              |
| <b>Domestic Market</b>                        | 6,980          | 542            | 208                   | 1,320                    | 491           | 269           | (2,080)             | 7,730                                      |
| <b>Export Market</b>                          | 4,536          | 4,040          | -                     | -                        | -             | -             | 843                 | 9,419                                      |
| <b>Cost of goods sold</b>                     | <b>(9,393)</b> | <b>(3,099)</b> | <b>(142)</b>          | <b>(914)</b>             | <b>(467)</b>  | <b>(196)</b>  | <b>1,572</b>        | <b>(12,640)</b>                            |
| <b>Gross profit</b>                           | <b>2,123</b>   | <b>1,483</b>   | <b>66</b>             | <b>406</b>               | <b>23</b>     | <b>73</b>     | <b>336</b>          | <b>4,509</b>                               |
| <b>General and administrative expenses</b>    | (915)          | (185)          | (25)                  | (83)                     | (75)          | (25)          | (907)               | (2,215)                                    |
| <b>Depreciation (note 11 a)</b>               | 679            | 461            | 13                    | 228                      | 73            | 17            | (193)               | 1,279                                      |
| <b>Proportionate EBITDA of joint ventures</b> |                |                |                       |                          |               |               | 502                 | 502  |
| <b>Adjusted EBITDA*</b>                       | <b>1,887</b>   | <b>1,759</b>   | <b>54</b>             | <b>550</b>               | <b>22</b>     | <b>65</b>     | <b>(262)</b>        | <b>4,075</b>                               |

| <b>R\$ millions</b>           |               |               |                       |                          |               |               |                     | <b>Year Ended<br/>December<br/>31, 2015</b> |
|-------------------------------|---------------|---------------|-----------------------|--------------------------|---------------|---------------|---------------------|---|
|                               |               |               |                       |                          |               |               |                     | <b>(Restated)</b>                           |
| <b>Consolidated Results</b>   | <b>Steel</b>  | <b>Mining</b> | <b>Port Logistics</b> | <b>Railway Logistics</b> | <b>Cement</b> | <b>Energy</b> | <b>Eliminations</b> | <b>Consolidated</b>                         |
| <b>Net operating revenues</b> | <b>11,203</b> | <b>3,187</b>  | <b>213</b>            | <b>1,157</b>             | <b>432</b>    | <b>245</b>    | <b>(1,175)</b>      | <b>15,262</b>                               |
| <b>Domestic Market</b>        | 6,757         | 175           | 213                   | 1,157                    | 432           | 245           | (1,296)             | 7,683                                       |

|   |                |                |              |              |              |              |              |                 |
|---|----------------|----------------|--------------|--------------|--------------|--------------|--------------|-----------------|
| <b>Export Market</b>                          | 4,446          | 3,012          | -            | -            | -            | -            | 121          | 7,579           |
| <b>Cost of goods sold</b>                     | <b>(9,127)</b> | <b>(2,324)</b> | <b>(142)</b> | <b>(788)</b> | <b>(330)</b> | <b>(196)</b> | <b>1,166</b> | <b>(11,740)</b> |
| <b>Gross profit</b>                           | <b>2,076</b>   | <b>864</b>     | <b>71</b>    | <b>369</b>   | <b>102</b>   | <b>49</b>    | <b>(8)</b>   | <b>3,522</b>    |
| <b>General and administrative expenses</b>    | <b>(955)</b>   | <b>(70)</b>    | <b>(20)</b>  | <b>(90)</b>  | <b>(73)</b>  | <b>(23)</b>  | <b>(669)</b> | <b>(1,901)</b>  |
| <b>Depreciation (note 11 a)</b>               | <b>670</b>     | <b>377</b>     | <b>13</b>    | <b>189</b>   | <b>47</b>    | <b>17</b>    | <b>(183)</b> | <b>1,131</b>    |
| <b>Proportionate EBITDA of joint ventures</b> |                |                |              |              |              |              | <b>499</b>   | <b>499</b>      |
| <b>Adjusted EBITDA*</b>                       | <b>1,791</b>   | <b>1,171</b>   | <b>63</b>    | <b>469</b>   | <b>75</b>    | <b>43</b>    | <b>(361)</b> | <b>3,251</b>    |

\*\*Adjusted EBITDA is a measurement based on which we assess the performance of our operations and our capacity to generate recurring operating cash, consisting of net income (loss) for the year less net financial income (expenses), income tax and social contribution, depreciation and amortization, equity in results of affiliated companies, results of discontinued operations and other operating income (expenses), plus the proportionate EBITDA of joint ventures. Although Adjusted EBITDA is an indicator used for performance measurement purposes, it is not a measurement recognized under IFRS. Therefore, it has no standard definition and may not be comparable with measurements using similar names provided by other entities. The reconciliation of the EBITDA and Adjusted EBITDA are disclosed in Note 27 to our consolidated financial statements included in "Item 18. Financial Statement".

### Net Operating Revenues

Net operating revenues increased R\$1,887 million, or 12%, from R\$15,262 million recorded in 2015 to R\$17,149 million in 2016, due principally to the higher volumes and prices practiced in the mining segment.

Net domestic revenues remained stable, at R\$7,683 million in 2015 and R\$7,730 million in 2016, while net revenues of exports and sales abroad increased 24%, from R\$7,579 million in 2015 to R\$9,419 million in 2016, given the slowdown in the domestic economy and our strategy to redirect our sales to the foreign market.

### ***Steel***

Steel net operating revenues increased R\$313 million, or 3%, from R\$11,203 million in 2015 to R\$11,516 million in 2016, due to higher prices. Sales volume decreased 3% from 4,990 thousand tons in 2015 to 4,857 thousand tons in 2016.

Steel net domestic revenues increased R\$223 million, or 3%, from R\$6,757 million in 2015 to R\$6,980 million in 2016, due to higher prices. Sales volume decreased 6%, from 2,969 thousand tons in 2015 to 2,783 thousand tons in 2016.

Steel net revenues from exports and sales abroad increased R\$90 million, or 2%, from R\$4,446 million in 2015 to R\$4,536 million in 2016, due to an increase of 3% in the sales volume to the foreign market, based on the strategy to redirect sales as discussed above, from 2,022 thousand in 2015 to 2,073 thousand tons in 2016.

During 2016, even operating with idle capacity, steel sales only decreased 3% compared to 2015 because we were able to reduce our inventories.

### ***Mining***

Total mining net operating revenues increased R\$1,395 million, or 44%, from R\$3,187 million in 2015 to R\$4,582 million in 2016, mainly due to an increase of our sales from 25.7 million tons in 2015 to 32.8 million tons in 2016, or 28%. Iron ore prices increased 5.3% in 2016 compared to 2015, reaching an average of US \$58.45/dmt (Platts, Fe 62%).

Mining net export revenues increased R\$1,028 million, or 34%, from R\$3,012 million in 2015 to R\$4,040 million in 2016, mainly due to higher volumes.

Mining net domestic revenues increased R\$367 million, from R\$175 million in 2015 to R\$542 million in 2016, due to the sale of iron ore volumes directed to UPV mill in the domestic market since December 2015. Previously, before the restructuring of our iron ore business in CSN Mineração, the volume used to be transferred from Casa de Pedra mine to UPV.

### ***Logistics***

Logistics net operating revenues increased R\$158 million, or 12%, from R\$1,370 million in 2015 to R\$1,528 million in 2016 due to a 16% increase in tons per kilometer transported by FTL. In 2016, net revenue from railway logistics totaled R\$1,320 million and net revenue from port logistics amounted to R\$208 million, while in 2015, net revenue from railway logistics totaled R\$1,157 million and net revenue from port logistics amounted to R\$213 million.

### ***Cement***

Cement net revenue increased R\$59 million, or 14%, from R\$432 million in 2015 to R\$491 million in 2016, mainly due to an increase of 29% in cement sales volume from 2,182 thousand tons in 2015 to 2,814 thousand tons in 2016 due to the ramp up of the new plant in Arcos. This effect was partially offset by lower prices from R\$198 per ton in 2015 to R\$174 per ton in 2016.

### ***Energy***



Our net operating revenues from the energy segment increased R\$24 million, or 10% of total net revenue from the energy segment, from R\$245 million in 2015 to R\$269 million in 2016.

**Cost of Products Sold**

Consolidated cost of products sold increased R\$900 million, or 8% from R\$11,740 million in 2015 to R\$12,640 million in 2016, mainly due to the higher production volumes in our mining segment.

*Steel*

Consolidated steel costs of products sold were R\$9,393 million in 2016, representing a 3% increase as compared to the R\$9,127 million in 2015, mainly due to increased cost of iron ore purchased from CSN Mineração.

| Steel Production Cost           | 2016         |                | 2015         |                | Variation 2016 Vs. 2015 |              |
|---------------------------------|--------------|----------------|--------------|----------------|-------------------------|--------------|
|                                 | R\$million   | R\$/ ton       | R\$million   | R\$/ ton       | R\$million              | R\$/ ton     |
| <b>Raw Materials</b>            | <b>2,841</b> | <b>874.3</b>   | <b>3,242</b> | <b>725.8</b>   | <b>(400)</b>            | <b>148.5</b> |
| <b>Iron Ore</b>                 | 515          | 158.6          | 377          | 84.3           | 139                     | 74.3         |
| <b>Coal</b>                     | 635          | 195.3          | 670          | 150.0          | (36)                    | 45.3         |
| <b>Coke</b>                     | 446          | 137.1          | 874          | 195.7          | (428)                   | (58.6)       |
| <b>Coils</b>                    | 49           | 15.0           |              |                | 49                      | 15.0         |
| <b>Metals</b>                   | 511          | 157.2          | 443          | 99.1           | 68                      | 58.1         |
| <b>Outsourced Slabs</b>         | 285          | 87.6           | 278          | 62.3           | 6                       | 25.3         |
| <b>Pellets</b>                  | 161          | 49.6           | 296          | 66.3           | (135)                   | (16.6)       |
| <b>Scrap</b>                    | 18           | 5.5            | 48           | 10.7           | (30)                    | (5.1)        |
| <b>Other<sup>(1)</sup></b>      | 222          | 68.3           | 256          | 57.4           | (35)                    | 10.9         |
| <b>Labor</b>                    | <b>759</b>   | <b>233.5</b>   | <b>777</b>   | <b>173.9</b>   | <b>(18)</b>             | <b>59.6</b>  |
| <b>Other Production Costs</b>   | <b>2,044</b> | <b>629.2</b>   | <b>2,471</b> | <b>553.3</b>   | <b>(426)</b>            | <b>75.9</b>  |
| <b>Energy / Fuel</b>            | 617          | 189.9          | 718          | 160.9          | (101)                   | 29.0         |
| <b>Services and Maintenance</b> | 559          | 172.1          | 866          | 194.0          | (307)                   | (21.9)       |
| <b>Tools and Supplies</b>       | 249          | 76.7           | 264          | 59.1           | (15)                    | 17.6         |
| <b>Depreciation</b>             | 399          | 122.6          | 408          | 91.4           | (10)                    | 31.2         |
| <b>Other</b>                    | 220          | 67.8           | 214          | 47.9           | 6                       | 19.9         |
| <b>Total</b>                    | <b>5,644</b> | <b>1,736.9</b> | <b>6,489</b> | <b>1,453.0</b> | <b>(845)</b>            | <b>284.0</b> |

<sup>(1)</sup> Includes limestone and dolomite

*Mining*

Our mining costs of products sold increased R\$775 million, or 33%, from R\$2,324 million in 2015 to R\$3,099 million in 2016, mainly due to the increase in volume sold.

*Logistics*

Cost of services attributable to our logistics segment increased R\$126 million, or 14%, from R\$930 million in 2015 to R\$1,056 million in 2016, due to increase in railway logistics costs, mainly due to the 16% increase in tons per kilometer transported by FTL. For port logistics services, costs remained stable.

*Cement*

Cost of products sold attributable to our cement segment increased R\$137 million, or 42%, from R\$330 million reported in 2015 to R\$467 million in 2016, mainly due to higher volumes produced with the new mills at our Arcos plant. Since the clinker line was concluded only at the end of 2016, part of the clinker used in our production process was purchased from third parties, increasing production costs.

***Energy***

Cost of products sold attributable to our energy segment remained stable in R\$196 million in 2016.

89

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## **Gross Profit**

Gross profit increased R\$987 million, or 28%, from R\$3,522 million in 2015 to R\$4,509 million in 2016, due to the increase of R\$1,887 million in net revenues and the increase of R\$900 million in cost of products sold, as discussed above.

### *Steel*

Gross profit in the steel segment increased R\$47 million, or 2%, from R\$2,076 million in 2015 to R\$2,123 million in 2016 due to the reasons mentioned above.

### *Mining*

Our gross profit in the mining segment increased R\$619 million, or 72% from R\$864 million in 2015 to R\$1,483 million in 2016 due to the reasons mentioned above.

### **Logistics**

Gross profit in the logistics segment increased R\$32 million, or 7%, from R\$440 million in 2015 to R\$472 million in 2016 due to the reasons mentioned above.

### *Cement*

Gross profit in the cement segment decreased R\$79 million, or 77% from R\$102 million in 2015 to R\$23 million in 2016 due to the reasons mentioned above.

### *Energy*

Gross profit in energy segment increased R\$24 million, or 49%, from R\$49 million in 2015 to R\$73 million in 2016 due to the reasons mentioned above.

### **Selling, general and administrative**

Selling, general and administrative expenses increased R\$314 million, or 17%, from R\$1,901 million in 2015 to R\$2,215 million in 2016. Selling expenses increased R\$267 million, or 18%, from R\$1,430 million in 2015 to R\$1,697 million in 2016, mainly due to an increase of iron ore CIF sales (sales including insurance and freight costs), while general and administrative expenses increased R\$48 million, or 10%, from R\$470 million in 2015 to R\$518 million in 2016.

### **Other operating income (expenses)**

We had a decrease of R\$2,682 million in “Other Operating Income and Expenses” to a net operating expense of R\$413 million in 2016 as compared to a net operating income of R\$2,269 million mainly due to the gain of R\$3,297 million in 2015, composed of a positive impact of R\$3,790 million of remeasurement at fair value of our previous 60% stake in Namisa partially offset by the loss in the settlement of the preexisting relationship of R\$493 million as a result of the business combination, as explained in “Item 5A. Operating Results—Specific Events Affecting our Results of Operations—CSN Mineração.” Also, in 2016 we recorded an impairment loss of R\$388 million in the goodwill recognized in our investment in Transnordestina. This impact was partially offset by a gain of R\$252 million

recognized in 2016 due to Metalic's asset sale transaction, as explained in "Item 4B. Business Overview – Downstream Facilities – Metalic."

In 2015, we recognized an impairment in available-for-sale financial assets of R\$555 million. This effect did not occur in 2016. For more information, see Note 25 to our consolidated financial statements included in "Item 18. Financial Statements."

### **Equity in Results of Affiliated Companies**

Equity result decreased R\$1,095 million, or 94%, from income of R\$1,160 million in 2015 to R\$65 million in 2016. In 2015, there was an increase on the result of the jointly-controlled investee Namisa due to the exchange rate variation over Namisa's cash position proportional to our interest in this subsidiary.

The investment in Namisa was accounted for under the equity method until November 30, 2015. In December CSN exchanged a stake in CSN Mineração (formerly named Congonhas Minérios S.A.) for a 40% stake in the Consortium in Namisa, and CSN became the majority shareholder of Namisa; accordingly, Namisa was consolidated as from December 1, 2015.

## Operating Income

Operating income decreased R\$3,105 million, or 61%, from R\$5,050 million in 2015 to R\$1,945 million in 2016 due to the reasons stated above.

## Financial expenses (income), net

Our financial income and expenses generated net financial expenses of R\$2,522 million in 2016 as compared to net financial expenses of R\$3,365 million in 2015. This decrease was mainly due to the appreciation of the *real* which generated a foreign exchange gain of R\$921 million in 2016 in comparison to a foreign exchange loss of R\$1,619 million in 2015, partially offset by a loss of R\$812 million in our derivatives transactions compared to a gain of R\$846 million in 2015.

## Hedge Accounting

CSN regularly exports a large portion of its iron ore production, as well as steel products. The revenue in *reais* from these exports is impacted by the fluctuation of the exchange rate. On the other hand, CSN raises funds in foreign currency through borrowings and financings, in addition to imports of metallurgical coal and coke which are used in its steelmaking process, among other production inputs. These dollar liabilities act as a natural hedge for oscillations in export revenue.

In order to better reflect the effect of exchange fluctuations on its financial statements, as of December 31, 2014, CSN began to designate part of its U.S. dollar-denominated liabilities as a hedge for future exports. As a result, the exchange variation arising from these liabilities have temporarily been recorded directly in net equity as “other comprehensive income,” and amounted to R\$437 million as of December 31, 2016. This amount is transferred to the income statement when the exports take place, thus allowing impacts from the exchange fluctuation on liabilities and exports to be recorded simultaneously. The adoption of hedge accounting does not involve the contracting of any type of financial instrument. For more information, see “Note 14.b Transactions with Derivative Financial Instruments and Hedge Accounting” in our consolidated financial statements.

## Income Taxes

Income tax expense in Brazil refers to federal income tax and social contribution. The statutory rates for these taxes applicable to the periods presented herein were 25% for federal income tax and 9% for social contribution. Adjustments are made to income in order to reach the effective tax expense or benefit for each fiscal year. As a result, our effective tax rate between fiscal years shows volatility.

At statutory rates, the balances resulted in a benefit of R\$196 million in 2016 compared to total expenses of R\$573 million in 2015 (34% of income before taxes and adjustments to the income). After adjustments to meet the effective rates, we recorded expenses for income tax and social contribution of R\$266 million in 2016, as compared to an expense of R\$2,903 million in 2015. Expressed as a percentage of pre-tax income, income tax moved from 172% in 2015 to minus 46% in 2016. For the year ended December 31, 2016, the adjustments to meet the effective rates totaled expenses of R\$462 million, comprised mainly of:

- a positive R\$22 million adjustment related to equity result;
- expenses of R\$288 million related to results of subsidiaries taxed at different rates or not taxed;

- a negative R\$822 million adjustment related to tax loss and negative basis for which the tax credit was not recorded; and
- a positive impact of R\$644 million related to tax credits not recorded in the year.

For further information, see Note 16 to our consolidated financial statements.

It is not possible to predict the future adjustments to the federal income tax and social contribution at statutory rates, as they depend on interest on stockholders' equity, tax incentives, non-taxable factors including income from offshore operations, and tax losses from offshore operations, especially when expressed as a percentage of income.

**Net Income (Loss) for the year**

In 2016, we recorded a net loss of R\$853 million, as compared to a net loss of R\$1,216 million in 2015. The reasons described above explain the change of R\$363 million.

**Year 2015 Restated Compared to Year 2014**

We maintain integrated operations in five business segments: steel, mining, logistics, cement and energy. We manage and control the performance of our various business segments, considering the proportional interest in our jointly controlled entities, MRS Logística S.A., and CBSI - Companhia Brasileira de Serviços de Infraestrutura, reflected on figures described below, which may differ from those accounted according to IFRS.

Since December 1, 2015, we have been consolidating Namisa, which was recorded under the equity method until November 30, 2015. On December 31, 2015 Namisa was merged into CSN Mineração (former “Congonhas Minérios”).

Our consolidated results for the years ended December 31, 2015 and 2014 by business segment are presented below:

| R\$ millions                                  |                |                |                   |                      |              |              |                | Year Ended<br>December<br>31, 2015          |
|---|----------------|----------------|-------------------|----------------------|--------------|--------------|----------------|---|
|   | Steel          | Mining         | Port<br>Logistics | Railway<br>Logistics | Cement       | Energy       | Eliminations   | (Restated)<br>Consolidated                  |
| <b>Consolidated Results</b>                   |                |                |                   |                      |              |              |                |   |
| <b>Net operating revenues</b>                 | <b>11,203</b>  | <b>3,187</b>   | <b>213</b>        | <b>1,157</b>         | <b>432</b>   | <b>245</b>   | <b>(1,175)</b> | <b>15,262</b>                               |
| <b>Domestic Market</b>                        | 6,757          | 175            | 213               | 1,157                | 432          | 245          | (1,296)        | 7,683                                       |
| <b>Export Market</b>                          | 4,446          | 3,012          | -                 | -                    | -            | -            | 121            | 7,579                                       |
| <b>Cost of goods sold</b>                     | <b>(9,127)</b> | <b>(2,324)</b> | <b>(142)</b>      | <b>(788)</b>         | <b>(330)</b> | <b>(196)</b> | <b>1,166</b>   | <b>(11,740)</b>                             |
| <b>Gross profit</b>                           | <b>2,076</b>   | <b>864</b>     | <b>71</b>         | <b>369</b>           | <b>102</b>   | <b>49</b>    | <b>(8)</b>     | <b>3,522</b>                                |
| <b>General and administrative expenses</b>    | <b>(955)</b>   | <b>(70)</b>    | <b>(20)</b>       | <b>(90)</b>          | <b>(73)</b>  | <b>(23)</b>  | <b>(669)</b>   | <b>(1,901)</b>                              |
| <b>Depreciation (note 11 a)</b>               | <b>670</b>     | <b>377</b>     | <b>13</b>         | <b>189</b>           | <b>47</b>    | <b>17</b>    | <b>(183)</b>   | <b>1,131</b>                                |
| <b>Proportionate EBITDA of joint ventures</b> |                |                |                   |                      |              |              | <b>499</b>     | <b>499</b>                                  |
| <b>Adjusted EBITDA*</b>                       | <b>1,791</b>   | <b>1,171</b>   | <b>63</b>         | <b>469</b>           | <b>75</b>    | <b>43</b>    | <b>(361)</b>   | <b>3,251</b>                                |
| <b>R\$million</b>                             |                |                |                   |                      |              |              |                |   |
|   |                |                |                   |                      |              |              |                | <b>Year Ended<br/>December<br/>31, 2014</b> |
| <b>Consolidated Results</b>                   |                |                |                   |                      |              |              |                | <b>Consolidated</b>                         |
|   | <b>11,492</b>  | <b>4,109</b>   | <b>202</b>        | <b>1,105</b>         | <b>440</b>   | <b>324</b>   | <b>(1,547)</b> | <b>16,126</b>                               |



|   |                |                |              |              |              |              |              |                 |
|---|----------------|----------------|--------------|--------------|--------------|--------------|--------------|-----------------|
| <b>Net operating revenues</b>                 |                |                |              |              |              |              |              |                 |
| <b>Domestic</b>                               | 8,650          | 307            | 202          | 1,105        | 440          | 324          | (1,063)      | 9,966           |
| <b>Market</b>                                 |                |                |              |              |              |              |              |                 |
| <b>Export Market</b>                          | 2,841          | 3,803          |              |              |              |              | (484)        | 6,160           |
| <b>Cost of goods sold</b>                     | <b>(8,672)</b> | <b>(2,986)</b> | <b>(138)</b> | <b>(753)</b> | <b>(295)</b> | <b>(187)</b> | <b>1,439</b> | <b>(11,592)</b> |
| <b>Gross profit</b>                           | <b>2,820</b>   | <b>1,123</b>   | <b>65</b>    | <b>352</b>   | <b>145</b>   | <b>138</b>   | <b>(109)</b> | <b>4,534</b>    |
| <b>General and administrative expenses</b>    | <b>(687)</b>   | <b>(61)</b>    | <b>(7)</b>   | <b>(113)</b> | <b>(67)</b>  | <b>(20)</b>  | <b>(525)</b> | <b>(1,480)</b>  |
| <b>Depreciation (note 11 a)</b>               | <b>802</b>     | <b>367</b>     | <b>11</b>    | <b>169</b>   | <b>38</b>    | <b>17</b>    | <b>(158)</b> | <b>1,245</b>    |
| <b>Proportionate EBITDA of joint ventures</b> |                |                |              |              |              |              | <b>431</b>   | <b>431</b>      |
| <b>Adjusted EBITDA*</b>                       | <b>2,935</b>   | <b>1,429</b>   | <b>68</b>    | <b>407</b>   | <b>116</b>   | <b>135</b>   | <b>(361)</b> | <b>4,729</b>    |

\*\*Adjusted EBITDA is a measurement based on which we assess the performance of our operations and our capacity to generate recurring operating cash, consisting of net income (loss) for the year less net financial income (expenses), income tax and social contribution, depreciation and amortization, equity in results of affiliated companies, results of discontinued operations and other operating income (expenses), plus the proportionate EBITDA of joint ventures. Although Adjusted EBITDA is an indicator used for performance measurement purposes, it is not a measurement recognized under IFRS. Therefore, it has no standard definition and may not be comparable with measurements using similar names provided by other entities. The reconciliation of the EBITDA and Adjusted EBITDA are disclosed in Note 27 to our consolidated financial statements included in "Item 18. Financial Statement".

## **Net Operating Revenues**

Net operating revenues decreased R\$864 million, or 5%, from R\$16,126 million recorded in 2014 to R\$15,262 million in 2015, due to the lower prices practiced in the mining segment.

Net domestic revenues decreased 23%, from R\$9,966 million in 2014 to R\$7,683 million in 2015, while net revenues of exports and sales abroad increased 23%, from R\$6,160 million in 2014 to R\$7,579 million in 2015, given the slowdown in the domestic economy and our strategy to redirect our sales to the foreign market.

### ***Steel***

Steel net operating revenues decreased R\$289 million, or 3%, from R\$11,492 million in 2014 to R\$11,203 million in 2015, due to a decrease in sales volume of 4% from 5,177 thousand tons in 2014 to 4,990 thousand tons in 2015.

Steel net domestic revenues decreased R\$1,893 million, or 22%, from R\$8,650 million in 2014 to R\$6,757 million in 2015, due to a decrease in sales volume of 20%, from 3,717 thousand tons in 2014 to 2,969 thousand tons in 2015.

Steel net revenues from exports and sales abroad increased R\$1,605 million, or 56%, from R\$2,841 million in 2014 to R\$4,446 million in 2015, due to an increase of 39% in the sales volume to the foreign markets, based on the strategy to redirect sales as discussed above, from 1,460 thousand tons in 2014 to 2,022 thousand tons in 2015.

## **Net Operating Revenues**

### ***Mining***

Total mining net operating revenues decreased R\$922 million, or 22%, from R\$4,109 million in 2014 to R\$3,187 million in 2015, mainly due to a decrease of 43% in average international iron ore prices, from US\$97/dmt in 2014 to US\$55/dmt in 2015, principally due to an increased supply capacity in Australia and Brazil, in addition to the significant slowdown in the infrastructure and construction sector, major steel consumers in China.

Mining net export revenues decreased R\$791 million, or 21%, from R\$3,803 million in 2014 to R\$3,012 million in 2015, mainly due to the decrease of 43% in average international iron ore prices partially offset by increased export sales volumes.

Mining net domestic revenues decreased R\$132 million, or 43%, from R\$307 million in 2014 to R\$175 million in 2015, mainly due to the decrease in iron ore prices and, to reduced sales volumes.

### ***Logistics***

Logistics net operating revenues increased R\$63 million, or 5%, from R\$1,307 million in 2014 to R\$1,370 million in 2015. In 2015, net revenue from railway logistics totaled R\$1,157 million and net revenue from port logistics amounted to R\$213 million, while in 2014, net revenue from railway logistics totaled R\$1,105 million and net revenue from port logistics amounted to R\$202 million.

### ***Cement***

Cement net revenue decreased R\$8 million, or 2%, from R\$440 million in 2014 to R\$432 million in 2015, mainly due to a decrease of 1% in cement sales volume from 2,209 thousand tons in 2014 to 2,182 thousand tons in 2015.

***Energy***

Our net operating revenues from the energy segment decreased R\$79 million, or 24% of total net revenue from the energy segment, from R\$324 million in 2014 to R\$245 million in 2015, mainly due to the reduction of surplus energy available for selling and lower energy prices.

93

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## Cost of Products Sold

Consolidated cost of products sold increased R\$148 million, or 1% from R\$11,592 million in 2014 to R\$11,740 million in 2015, due to the impact from the foreign exchange variation on steel production cost partially compensated by a reduction of R\$662 million in the cost of products sold in the mining segment.

### Steel

Consolidated steel costs of products sold were R\$9,127 million in 2015, representing a 5% increase as compared to the R\$8,672 million in 2014, mainly due to increased cost of imported raw materials, higher electricity consumption and maintenance.

The following table sets forth our flat steel production costs, the production costs per ton of steel and the portion of production costs attributable to the primary components of our costs of production. With the exception of coal and coke, which we import, and some metals (such as aluminum, zinc and tin) with domestic prices linked to international prices, our production costs are mostly denominated in *reais*.

| Steel Production Cost           | 2015         |              | 2014         |              | Variation 2015 Vs. 2014 |               |
|---------------------------------|--------------|--------------|--------------|--------------|-------------------------|---------------|
|                                 | R\$million   | R\$/ ton     | R\$million   | R\$/ ton     | R\$million              | R\$/ ton      |
| <b>Raw Materials</b>            | <b>3,242</b> | <b>726</b>   | <b>3,398</b> | <b>702</b>   | <b>(156)</b>            | <b>(34.6)</b> |
| <b>Iron Ore</b>                 | 377          | 84.33        | 422          | 87.3         | (45)                    | 13.2          |
| <b>Coal</b>                     | 670          | 150          | 748          | 154.8        | (78)                    | (4.3)         |
| <b>Coke</b>                     | 874          | 195.7        | 694          | 143.6        | 180                     | (9.9)         |
| <b>Metals</b>                   | 443          | 99.1         | 335          | 69.4         | 108                     | 7.8           |
| <b>Outsourced Slabs</b>         | 278          | 62.29        | 467          | 96.7         | (189)                   | (38.2)        |
| <b>Pellets</b>                  | 296          | 66.26        | 399          | 82.6         | (103)                   | 3.1           |
| <b>Scrap</b>                    | 48           | 10.68        | 74           | 15.3         | (26)                    | (7.3)         |
| <b>Other<sup>(1)</sup></b>      | 256          | 57.4         | 251          | 51.9         | 5                       | 1             |
| <b>Labor</b>                    | <b>777</b>   | <b>173.9</b> | <b>706</b>   | <b>146.1</b> | <b>71</b>               | <b>18.9</b>   |
| <b>Other Production Costs</b>   | <b>2,471</b> | <b>553</b>   | <b>2,359</b> | <b>488.2</b> | <b>112</b>              | <b>(33.3)</b> |
| <b>Energy / Fuel</b>            | 718          | 160.9        | 495          | 102.4        | 223                     | (21.5)        |
| <b>Services and Maintenance</b> | 866          | 194.0        | 910          | 188.3        | (44)                    | 7.1           |
| <b>Tools and Supplies</b>       | 264          | 59.1         | 260          | 53.9         | 4                       | (4.5)         |
| <b>Depreciation</b>             | 408          | 91.4         | 575          | 119.1        | (167)                   | (10.7)        |
| <b>Other</b>                    | 214          | 47.9         | 119          | 24.5         | 95                      | (3.7)         |
| <b>Total</b>                    | <b>6,489</b> | <b>1,453</b> | <b>6,455</b> | <b>1,336</b> | <b>34</b>               | <b>(49)</b>   |

<sup>(1)</sup> Includes limestone and dolomite

We are self-sufficient in almost all raw materials used in the production of steel. The principal raw materials we use in our integrated steel mill include iron ore, coke, coal (from which we produce most of our coke necessities), limestone, dolomite, aluminum, tin and zinc. In addition, our production operations consume water, gases, electricity and ancillary materials.

We obtain our iron ore requirements except pellets from our Casa de Pedra mine located in the state of Minas Gerais, and the limestone and dolomite from our Bocaina mine in the city of Arcos, in the state of Minas Gerais. All coal and a portion of the coke we consume are acquired from different international producers “See Item 4B. Business Overview—Raw Materials and Suppliers.”

Our steel production costs increased R\$34 million, or 0,5%, from R\$6,455 million in 2014 to R\$6,489 million in 2015, mainly due to the increased cost of imported raw materials, higher electricity consumption and maintenance.

Our costs regarding purchase of outsourced slabs from third parties decreased R\$189 million, or 40%, from R\$467 million in 2014 to R\$278 million in 2015, due to lower consumption of slabs purchased from third parties.

Our coke costs increased R\$180 million, or 26%, from R\$694 million in 2014 to R\$874 million in 2015, corresponding to 13% of our steel production cost and an increase of 45% in energy consumption, partially offset by the depreciation of the real.

Our coal costs decreased R\$78 million, or 10%, from R\$748 million in 2014 to R\$670 million in 2015, corresponding to 10% of our steel production cost, mainly due to lower international coal prices, partially offset by the depreciation of the real.

Our scrap costs decreased R\$26 million, or 35%, from R\$74 million in 2014 to R\$48 million in 2015, mainly due to lower consumption.

Other production costs including energy/fuel, services and maintenance, tools and supplies and depreciation increased R\$112 million or 5%, from R\$2,359 million in 2014 to R\$2,471 million in 2015.

### ***Mining***

Our mining costs of products sold decreased R\$662 million, or 22%, from R\$2,986 million in 2014 to R\$2,324 million in 2015, mainly due to the decrease in volume sold and purchased from third parties.

### ***Logistics***

Cost of services attributable to our logistics segment increased R\$39 million, or 4%, from R\$891 million in 2014 to R\$930 million in 2015, due to the increases of R\$35 million and R\$4 million in the costs of railway logistics and port logistic services, respectively. For railway logistics the increase was mainly due to an increase in costs from MRS. For port logistics services, the increase was the higher volume of steel products transported during the period.

### ***Cement***

Cost of products sold attributable to our cement segment increased R\$35 million, or 12%, from R\$295 million reported in 2014 to R\$330 million in 2015, mainly due to purchase of Clinker to supply the Arcos plant.

### ***Energy***

Cost of products sold attributable to our energy segment increased R\$9 million, or 5%, from R\$187 million in 2014 to R\$196 million in 2015.

### **Gross Profit**

Gross profit decreased R\$1,002 million, or 22%, from R\$4,534 million in 2014 to R\$3,522 million in 2015, due to the decrease of R\$864 million in net revenues and to the increase of R\$148 million in cost of products sold, as discussed above.

### ***Steel***

Gross profit in the steel segment decreased R\$744 million, or 26%, from R\$2,820 million in 2014 to R\$2,076 million in 2015.

***Mining***

Our gross profit in the mining segment decreased R\$259 million, or 23% from R\$1,123 million in 2014 to R\$864 million in 2015.

### **Logistics**

Gross profit in the logistics segment decreased R\$24 million, or 6%, from R\$417 million in 2014 to R\$440 million in 2015.

### **Cement**

Gross profit in the cement segment decreased R\$43 million, or 30% from R\$145 million in 2014 to R\$102 million in 2015.

### **Energy**

Gross profit in energy segment decreased R\$89 million, or 64%, from R\$138 million in 2014 to R\$49 million in 2015.

### **Selling, general and administrative**

Selling, general and administrative expenses increased R\$421 million, or 28%, from R\$1,480 million in 2014 to R\$1,901 million in 2015. Selling expenses increased R\$388 million, or 37%, from R\$1,042 million in 2014 to R\$1,430 million in 2015, mainly due to an increase of iron ore CIF sales (sales including insurance and freight costs), while general and administrative expenses increased R\$32 million, or 7%, from R\$438 million in 2014 to R\$470 million in 2015.

### **Other operating income (expenses)**

We had an increase of R\$2,836 million in “Other Operating Income and Expenses” to a net operating income of R\$2,269 million in 2015 as compared to R\$567 million of other net operating expenses in 2014 mainly due to the gain of R\$3,297 million, composed of a positive impact of R\$3,790 million of remeasurement at fair value of our previous 60% stake in Namisa partially offset by the loss in the settlement of the preexisting relationship of R\$493 million as a result of the business combination, as explained in “Item 5A. Operating Results—Specific Events Affecting our Results of Operations—CSN Mineração.” Additionally, in 2015 we recorded tax credits of PIS and COFINS in the amount of R\$234 million which we can use to pay future tax obligations.

The gains above were partially offset by the increase in impairment of available-for-sale financial assets of R\$350 million and increase in provisions for tax, social security, labor, civil and environmental risks in the amount of R\$285 million. For more information, see Note 25 to our consolidated financial statements included in “Item 18. Financial Statements.”

### **Equity in Results of Affiliated Companies**

Equity result increased R\$829 million, or 250%, from income of R\$331 million in 2014 to R\$1,160 million in 2015, mainly due to the increase on the result of the jointly-controlled investee Namisa from R\$673 million for the year ended December 31, 2014 to R\$1,157 million for the eleven-month period ended November 30, 2015, due to the exchange rate variation over Namisa’s cash, position both proportional to our interest in this subsidiary.

The investment in Namisa was accounted for under the equity method until November 30, 2015. In December CSN exchanged a stake in CSN Mineração (former “Congonhas Minérios”) for the 40% stake of the Consortium in Namisa and CSN became the majority shareholder of Namisa; accordingly, Namisa was consolidated as from December 1st, 2015. Details of the transaction between CSN and the Asian Consortium and related conditions precedent for closing



are described on Item 4D. Property, Plant and Equipment, Acquisitions and Dispositions.

### **Operating Income**

Operating income increased R\$2,232 million, or 79%, from R\$2,818 million in 2014 to R\$5,050 million in 2015 due to:

- The net gain of R\$3,297 million arisen from the business combination of Namisa; and
- an increase of R\$829 million in equity result partially offset by;
- a decrease of R\$1,012 million in gross profit; and
- and an increase of R\$421 million in selling, general and administrative expenses.

96

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### Financial expenses (income), net

Our financial income and expenses generated a net financial expenses of R\$3,365 million in 2015 as compared to a net financial expenses of R\$3,081 million in 2014, an increase of R\$284 million in our financial expenses. This increase was mainly due to the depreciation of the *Real* which generated an increase in foreign exchange losses of R\$1,227 million in 2015 in comparison to 2014, partially offset by: (i) a higher gain in our derivatives transactions of R\$603 million in 2015 in comparison to 2014 and; (ii) R\$131 million greater financial income from short-term investments as a result of the strategy of repatriation of cash previously held in our offshore subsidiaries.

### Hedge Accounting

CSN regularly exports a large portion of its iron ore production, as well as steel products. The revenue in *reais* from these exports is impacted by the fluctuation of the exchange rate. On the other hand, CSN raises funds in foreign currency through borrowings and financings, in addition to imports of metallurgical coal and coke which are used in its steelmaking process, among other production inputs. These dollar liabilities act as a natural hedge for oscillations in export revenue.

In order to better reflect the effect of exchange fluctuations on its financial statements, as of December 31, 2014 CSN began to designate part of its U.S. dollar-denominated liabilities as a hedge for future exports. As a result, the exchange variation arising from these liabilities were temporarily recorded directly in net equity as Other Comprehensive Income totaling to R\$1,520 million as of December 31, 2015. The said amount is transferred to the income statement when the exports take place, thus allowing impacts from the exchange fluctuation on liabilities and exports to be recorded simultaneously. It is important to note that the adoption of hedge accounting does not involve the contracting of any type of financial instrument. For more information, see Note “14.b Transactions with Derivative Financial Instruments and Hedge Accounting” in our consolidated financial statements.

### Income Taxes

Income tax expense in Brazil refers to federal income tax and social contribution. The statutory rates for these taxes applicable to the periods presented herein were 25% for federal income tax and 9% for the social contribution. Adjustments are made to the income in order to reach the effective tax expense or benefit in each fiscal year. As a result, our effective tax rate among exercises presents volatility.

At the statutory rates the balances owed totaled expenses of R\$573 million in 2015 and a benefit of R\$90 million in 2014 (34% of income before taxes and adjustments to the income). After adjustments to meet the effective rates, we recorded tax expenses of R\$2,903 million in 2015, as compared to a benefit of R\$151 million in 2014. Expressed as a percentage of pre-tax income, income tax moved from 57% in 2014 to 172% in 2015. For the year ended December 31, 2015, these adjustments totaled expenses of R\$2,330 million, comprised mainly of:

- a positive R\$394 million adjustment related to equity result;
- a benefit of R\$799 million related to results of subsidiaries taxed at different rates or not taxed;
- R\$856 million positive impact related to the remeasurement at fair value of the 60% stake in Namisa as a result of the business combination of the former joint-controlled entity;
- a negative R\$90 million adjustment related to tax loss and negative basis for which the tax credit was not recorded, and

- a negative impact of R\$1,133 million related to tax credits of temporary differences not recorded in the year.
- the valuation allowance of R\$2,949 million recognized to write-down the deferred tax asset at the limit of 30% of our deferred tax liability.

For further information, see Note 16 to our consolidated financial statements.”

It is not possible to predict the future adjustments to the federal income tax and social contribution at statutory rates, as they depend on interest on stockholder’s equity, tax incentives, non-taxable factors including income from offshore operations, and tax losses from offshore operations, especially when expressed as a percentage of income.

## **Net Income (Loss) for the Year**

In 2015, we recorded a net loss of R\$1,215 million, as compared to a net loss of R\$112 million in 2014.

## **5B. Liquidity and Capital Resources**

### **Overview**

Our main uses of funds are capital expenditures and repayment of debt. We have historically met these requirements by using cash generated from operating activities and through the issuance of short and long-term debt instruments. We have met our cash needs for 2017 primarily through a combination of operating cash flow, cash and cash equivalents on hand, cash from asset sales and newly issued long-term debt instruments in order to repay the portion of our total debt maturing in 2017.

In addition, we periodically review acquisition and investment opportunities and will make, if a suitable opportunity arises, selected acquisitions and investments to implement our business strategy. We generally make investments directly or through subsidiaries, jointly controlled entities or affiliated companies, and fund these investments through internally generated funds, the issuance of debt, or a combination of such methods.

### **Sources of Funds and Working Capital**

#### *Year 2016 Compared to Year 2015*

#### *Cash Flows*

Cash and cash equivalents decreased by R\$2,990 million in 2016, compared to a decrease of R\$825 million in 2015.

### **Operating Activities**

Cash provided by operations was R\$276 million and R\$5,069 million in 2016 and 2015, respectively. The R\$4,793 million decrease was mainly due to:

- the receipt of dividends from Namisa in the amount of R\$3,239 million in 2015, which did not occur in 2016;
- the monetary and exchange variations due to the appreciation of the real against the U.S. dollar of 17% in 2016 as compared to the devaluation of the real against the US dollar of 47% in 2015.

These two effects above were partially offset by:

- a higher adjusted EBITDA of R\$ 4,075 million in 2016 as compared to R\$ 3,251 in 2015;
- and a positive variation in working capital mainly due to the reduction of: (i) inventories from 127 days in 2015 to 97 days in 2016. During 2015, due to weak internal demand for steel, our inventories significantly increased and we decided to interrupt operation of Blast Furnace No. 02. In 2016, we destocked finished products and, despite a decrease in production, we maintained the same level of sales as in 2015.



### ***Investing Activities***

We used cash in our investing activities in the total amount of R\$2,305 million in 2016 and R\$2,865 million in 2015. The decrease of R\$560 million in cash used in investing activities was mainly due to:

- the payment of R\$2,727 million (US\$707 million) in 2015 related to the purchase of a stake of 4.16% of CSN Mineração (former “Congonhas Minérios”) as part of the business combination between CSN mining assets and Namisa. See details in “Item 5A. Operating Results, Specific Events Affecting our Results of Operations”;
- the sale of Metalic in 2016 for which we received a net cash of R\$332 million;
- partially offset by derivatives operations payment of R\$722 million in 2016 compared to a receipt of R\$903 million in 2015, resulting in a negative impact of R\$1,626 million.

### ***Financing Activities***

Cash used in financing activities was R\$883 million in 2016 compared to R\$3,091 million in 2015. This R\$2,208 million decrease was mainly due to a decrease of R\$1,496 million in net amortizations and payments of R\$550 million in dividends occurred only in 2015.

### ***Year 2015 Compared to Year 2014***

#### ***Cash Flows***

Cash and cash equivalents decreased by R\$825 million in 2015, compared to a decrease of R\$1,310 million in 2014.

### **Operating Activities**

Cash provided by operations was R\$5,069 million and R\$824 million in 2015 and 2014, respectively. The R\$4,245 million increase was mainly due to Namisa’s dividend receipt, amounting R\$3,239 million, part of the conclusion process of the business combination between CSN mining assets and Namisa and other taxes variation amounting to R\$634 million, since 2014 had a significant payment of REFIS.

### ***Investing Activities***

We used cash in our investing activities in the total amount of R\$2,865 million in 2015 and R\$1,658 million in 2014. The increase of R\$1,207 million in cash used in investing activities was mainly due to:

- the payment of R\$2,727 million (US\$707 million) related to the purchase of a stake of 4.16% of CSN Mineração (former “Congonhas Minérios”) as part of the business combination between CSN mining assets and Namisa;

- cash margin to cover our derivatives position in the amount of R\$725 million;
- the two main cash outflows mentioned above were partially offset by derivatives operations receipt of R\$827 million, cash of merged entities in the amount of R\$923 million and loans from related party received in the amount of R\$316 million.

***Financing Activities***

Cash used in financing activities was R\$3,091 million in 2015 compared to R\$531 million in 2014. This R\$2,560 million increase was mainly due to a decrease of R\$965 million in borrowings, an increase of R\$2,285 million in amortizations, partially offset by R\$900 million of the purchase of treasury shares occurred in 2014.

***Trade Accounts Receivable Turnover Ratio***

Our receivable turnover ratio (the ratio between trade accounts receivable and net operating revenues), expressed in days of sales increased 5 to 35 days on December 31, 2016, from 30 days on December 31, 2015.

***Turnover of Inventory***

Our inventory turnover (obtained by dividing inventories by annualized cost of products sold), expressed in days of cost of products sold decreased 30 days to 97 days in 2016 from 127 days in 2015. During 2015, due to weak internal demand for steel, our inventories significantly increased and we decided to interrupt operation of Blast Furnace No. 02.

### ***Trade Accounts Payable Turnover Ratio***

The accounts payable turnover ratio (obtained by dividing trade accounts payable by annualized cost of products sold), expressed in days of cost of products sold, decreased 1 day from 52 days on December 31, 2015 to 51 days on December 31, 2016.

### ***Liquidity Management***

Given the capital intensive, cyclical nature of our industry and the generally volatile economic environment in certain emerging markets, we have retained an amount of cash on hand to run our operations and to satisfy our short-term financial obligations. As of December 31, 2016, cash and cash equivalent totaled R\$4,871 million, compared to R\$7,861 million as of December 31, 2015.

As of December 31, 2016, short-term and long-term indebtedness accounted for 7% and 93%, respectively, of our total debt, and the average life of our existing debt was equivalent to approximately seven years, considering a 40-year term for the perpetual bonds issued in September 2010.

### ***Capital Expenditures and Investments***

CSN invested R\$1,638 million in 2016, in:

- the conclusion of the Arcos' clinker kiln project in Minas Gerais, anticipating higher operating margins in the Southeast System.
- the extension of the economic life of coke batteries in Presidente Vargas Plant.

Of our total investments, R\$330 million went to spare parts and R\$729 million to current investments.

CSN invested R\$2,170 million in 2015, taking advantage of opportunities to accelerate projects that enhance competitiveness:

- the acquisition of new mining equipment, anticipating some of the investments scheduled for 2016 due to current favorable financing conditions. These items of equipment were already helping to reduce mining costs in 2015.
- the accelerated development of the Arcos' clinker kiln project in Minas Gerais, anticipating higher operating margins in the Southeast System.
- revamp of the Turbo Generator (TG20) in Presidente Vargas Plant, recovering the nominal energy capacity of 117MW in the TG20.

Of our total investments, R\$376 million went to spare parts and R\$561 million to current investments.

In 2016, we continued to implement our strategy of expansion in cement business and prioritized the implementation of sustaining investments in order to maintain the operational capability and to comply with environmental and safety requirements.



We expect to meet our liquidity requirements from cash generated from operations, and, if needed, the issuance of debt securities. For details on our Planned Investments see “Item 4D. Property, Plant and Equipment—Capital Expenditures—Planned Investments.”

***Debt and Derivative Instruments***

At December 31, 2016 and 2015, total debt (composed of current and non-current portions of borrowings and financings) was R\$30,441 million and R\$34,283 million (excluding transactions costs), respectively, equal to 312% and 383% of the Shareholders’ equity at December 31, 2016 and 2015, respectively. At December 31, 2016, our short-term debt (composed of current borrowings and financings, which includes current portion of long-term debt) totaled R\$2,117 million and our long-term debt (composed of non-current borrowings and financings) totaled R\$28,324 million. The foregoing amounts do not include debt of others for which we are contingently liable. See “Item 5E. Off-Balance Sheet Arrangements.”

At December 31, 2016, approximately 52% of our debt was denominated in *reais* and substantially all of the remaining balance was denominated in U.S. dollars.

In 2017, we held negotiations with our main creditors, Banco do Brasil and Caixa Econômica Federal, to extend our debt maturities initially due in 2017 and 2018. Our intention is to set an amortization schedule more consistent with our cash flow generation.

Our current policy is to protect ourselves against foreign exchange losses and interest rate losses on our debt and currently our exposure is protected through hedge accounting. For a description of our derivative instruments, see Note 14.b to our consolidated financial statements contained in “Item 18. Financial Statements.”

The components of R\$2,117 million of our consolidated current portion of short-term debt and current portion of long-term debt outstanding at December 31, 2016, were:

| Components                  | Average<br>Interest Rate                           | Total<br>(in millions of R\$) |
|-----------------------------|--|-------------------------------|
| <b>Fixed rate notes</b>     | 4.14% - 10%  | 137                           |
| <b>BNDES/Finame</b>         | 1.3% + TJLP and fixed rate of 2.5%<br>to 6% + 1.5% | 74                            |
| <b>Prepayment financing</b> | 1% - 8% and 109.5% to 116.5% of<br>CDI             | 1,121                         |
| <b>Debentures</b>           | 110.8% to 113.7% of CDI                            | 538                           |
| <b>CCB</b>                  | 112.5% and 113% of CDI                             | 181                           |
| <b>Perpetual bonds</b>      | 7%   | 4                             |
| <b>Others</b>               | 1.2% - 8,00%                                       | 64                            |
| <b>Total</b>                |  | <b>2,117</b>                  |

The components of R\$28,324 million of our consolidated long-term debt outstanding at December 31, 2016, were (amounts are reflected in long-term debt):

| Components                  | Average<br>Interest Rate                           | Total<br>(in millions of R\$) |
|-----------------------------|--|-------------------------------|
| <b>Debentures</b>           | 110.8% to 113.7% of CDI                            | 1,270                         |
| <b>Fixed rate notes</b>     | 6.5% - 6.9%  | 5,529                         |
| <b>BNDES/Finame</b>         | 1.3% + TJLP and fixed rate of 2.5%<br>to 6% + 1.5% | 1,012                         |
| <b>Perpetual bonds</b>      | 7.00%  | 3,259                         |
| <b>Prepayment financing</b> | 1% - 8% and 109.5% to 116.5% of<br>CDI             | 9,852                         |
| <b>CCB</b>                  | 112.5% and 113% of CDI                             | 7,200                         |
| <b>Others</b>               | 1.2% - 8,00%                                       | 200                           |
| <b>Total</b>                |  | <b>28,324</b>                 |

The information of our indebtedness below refers to the outstanding amount in December 31, 2016.

- debentures issued in July 2011, of R\$1,150 million bearing interest at a rate of 110.8% of the CDI rate per annum and maturity in 2019.
- debentures issued in March 2014, of R\$400 million bearing interest at a rate of 111.2% of the CDI rate per annum and maturity in 2021.
- debentures issued in January 2015, of R\$100 million bearing interest at a rate of 113.7% of the CDI rate per annum and maturity in 2022.
- debentures issued in July 2015, of R\$100 million bearing interest at a rate of 113.7% of the CDI rate per annum and maturity in 2022.

Eurodollar and Euronotes issued in accordance with Rule 144A and Regulation S under the Securities Act reflect senior unsecured debt instruments issued by us and our offshore subsidiaries, including:

- the US\$750 million bonds, 6.875% per annum coupon, issued in September 2009 with maturity in 2019.
- in July 2010, we issued US\$1 billion bonds, 6.50% per annum coupon and maturity date in July 2020, in January 2012, we priced, through our wholly-owned subsidiary CSN Resources S.A., an additional bond issuance in the amount of US\$200 million. The offering price was 106.00% and yield was 5.6% p.a.
- in September 2010, we issued US\$1 billion perpetual bonds, 7.0% per annum coupon.

We issued export credit notes, or NCEs:

- in September 2009, in the amount of R\$1.0 billion, in favor of Banco do Brasil S.A., due 2018. In September 2015, we amortized R\$613.3 million resulting in an outstanding balance of R\$386.7 million. This amortization is related to the rollover of this debt mentioned below;
- in September 2009, in the amount of R\$300 million, in favor of Banco do Brasil S.A., due 2018. In September, 2015, we amortized R\$180 million resulting in an outstanding balance of R\$120 million. This amortization also is

related to the rollover of of this debt mentioned below;

- in May 2010, in the amount of R\$2.0 billion, in favor of Banco do Brasil S.A., through our subsidiary CSN Mineração (former “Congonhas Minérios S.A.”), due 2019. In September 2015, we amortized R\$715 million resulting in an outstanding balance of R\$1.3 billion. This amortization also is related to the rollover of this debt mentioned below;
- in April 2011, we issued another NCE, in the amount of R\$1.5 billion; in favor of Banco do Brasil S.A., due to 2019. In September 2015, we amortized R\$500 million. This amortization also is related to the rollover of this debt mentioned below;
- in March 2013, in the amount of R\$200 million, in favor of Banco do Brasil S.A., due 2016. In February 2016, the total amount was extended to 2017;
- in February 2013, in the amount of R\$100 million, in favor of Bradesco, initially due 2016. In 2016, the total amount was extended to 2019

- in September 2015, R\$1.5 billion in favor of Banco do Brasil due 2022. This amortization also is related to the rollover of this debt mentioned below;

- in September 2015, R\$715 million, through our subsidiary CSN Mineração (former “Congonhas Minérios S.A.”), in favor of Banco do Brasil due 2022. This amortization also is related to the rollover of this debt mentioned below;

Export Pre-Payment issued by CSN:

- in October 2010, in the amount of US\$33,3 million, in favor of Banco Santander S.A., due 2017. In 2016, the total amount was extended to 2019;

- in April 2012, in the amount of US\$15 million, in favor of Banco Safra S.A., due 2017;

- in April 2013, in the amount of US\$378 million in favor of Banco do Brasil S.A., due 2021;

- in November 2013, in the amount of US\$200 million, in favor of Banco Bradesco S.A., due 2018;

- in November 2013, in the amount of US\$345 million, in favor of Banco Bradesco S.A., due 2022;

- in February 2014, in the amount of US\$100 million, in favor of ING Bank, due 2019;

- in April 2014, in the amount of US\$200 million, in favor of Banco Santander S.A., due 2019;

- in September 2014, in the amount of US\$100 million, in favor of Banco Santander S.A., due 2019;

- in December 2014, in the amount of US\$100 million, in favor of Bank of China, due 2020;

- In April 2015, in the amount of US\$71 million, in favor of Caterpillar Financial Services Corporation., due 2020;

- In July 2015, in the amount of US\$77 million, in favor of Caterpillar Financial Services Corporation, due 2020.

We contracted credit facilities from Caixa Econômica Federal (CEF), under its special credit for large companies, in the form of a bank credit bill, or CCB:

- on August 2009, in the amount of R\$2.0 billion and to be amortized in 172 months. In August 2015, we amortized R\$1.285 billion resulting in an outstanding balance of R\$715 mm. This amortization is related to the rollover of R\$2.57 billion mentioned below.
- on February 2010, in the amount of R\$1.0 billion and to be amortized in 166 months. In August 2015, we amortized R\$285 million resulting in an outstanding balance of R\$ 715 million. This amortization also is related to the rollover of R\$2.57 billion mentioned below.

In 2011, we contracted two additional CCBs:

- in February 2011, in the amount of R\$2.0 billion and to be amortized in 94 months. In August 2015, we amortized R\$1.0 billion resulting in an outstanding balance of R\$1.0 billion. This amortization also is related to the rollover of R\$2.57 billion mentioned below.
- in August 2011, in the amount of R\$2.2 billion and to be amortized in 108 months.

In September 2015, we concluded the extension of part of our debt with the Caixa Econômica Federal in the amount of R\$2.57 billion, and with Banco do Brasil, amounting to R\$2.21 billion, shifting maturities scheduled for 2016 and 2017 to the period between 2018 and 2022 in installments equally distributed.

In January 2012, we secured financing contracted through our subsidiary CSN Steel S.L., in the amount of €120 million, to partially fund the acquisition of all shares held by the Alfonso Gallardo Group, S.L.U. (“Grupo Gallardo”) in the following companies: SWT and Gallardo Sections S.L.U.

In 2016, we contracted a credit line with FINEP to fund our innovation projects in steel segment. The amount available from FINEP is R\$23 million due in 2026. The total amount approved by FINEP is R\$174 million and the remaining installments are expected to be available accordingly to investments disbursement schedule.

### *Maturity Profile*

The following table sets forth the maturity profile of our long-term debt at December 31, 2016, gross of transaction costs and premiums on issuance:

| Maturity in            | Principal Amount<br>(In thousands of R\$) |
|------------------------|---|
| <b>2018</b>            | 5,593,215                                 |
| <b>2019</b>            | 7,168,873                                 |
| <b>2020</b>            | 7,484,315                                 |
| <b>2021</b>            | 2,219,779                                 |
| <b>2022</b>            | 1,839,804                                 |
| <b>After 2022</b>      | 817,716                                   |
| <b>Perpetual bonds</b> | 3,259,100                                 |
| <b>Total</b>           | <b>28,382,802</b>                         |

### **5C. Research & Development and Innovation**

CSN has continuously invested in Research and Development to improve its products and processes, thus meeting market demands and assuring customers' requirements.

In 2015, we established a new unit called INOVA CSN, an organizational environment created in order to facilitate innovation projects in products, processes, energy efficiency and environmental to the business units of the entire Corporation, through financial funding from private and public institutions.

In 2016, CSN was able to obtain funding with FINEP, Brazil’s National Innovation Agency, in order to continue the INOVA Strategic Plan, whose main project is the *Development of Advanced High Strength Galvanized Steels in Industrial Scale Applied to the Automotive Industry, Aiming to Decrease the Fuel Consumption and Impacts to the Environment*.

In addition, CSN signed a partnership agreement with the Brazilian Agency for Industrial Research and Innovation (Embrapii) and Senai from Bahia state to develop two innovative projects which concerns environmental responsibility: Development of New Manufacturing Routes and Coating for Metal Sheet by Direct Hot Stamping and the Development of an Intelligent System for the Predictive Maintenance of Overhead Cranes.

Total expenses in 2016 in research, development and innovation reached US\$5.3 million compared to US\$16 million in 2015 and US\$6.8 million in 2014.



The current projects in development are:

- Dual Phase Advanced High Strength Galvanized Steel of DP600 Grade to meet new dimensional demands;
- Ferritic-Bainitic Advanced High Strength Galvanized Steel of FB590 Grade with thicknesses over 2.0mm with Cold Rolled and Hot Rolled base;
- High Strength Structural Galvanized Steels (ZAR400 and G450 grades), with emphasis for the application in storage silos;
- Pre-painted steel with new colors for export market;
- High Strength IF (Interstitial Free) Steel, IF 210 HSS grade, Galvanized (Zn-Fe Alloy GA) and Pre-Painted with thickness of 0.70 mm for application in fuel tanks;
- Dual Phase Advanced High Strength Galvanized Steel of DP450, DP500, DP800, DP800HF and DP600HF (High Formability) grades for the automotive industry;
- Development and Optimization of CSN Galvanized Steel for the application in tubes for bus body structures;
- Galvanized IF (Interstitial Free) steel of high formability with a reduction of the maximum limit of carbon for the automotive industry;
- Development of Textured Pre-Painted Material for the home appliance industry;
- Development of high-strength structural steel with 55% Al-Zn coating for general construction systems;

- Development of specifications CSN LT-TAMPA and CSN LT-ANEL for the food industry;
- Customization of Extrafino® Cold Rolled steel(BFE), specification CSN ESQ 60, for application in the construction industry;
- Homologation of Hot Rolled Products and Cold Rolled products to meet Ford's global requirements;
- Rebar (category CA-50), with a round core geometric configuration, designed to guarantee performance of the cut and bent steel segment;
- Development of Hot Rolled and Hot Rolled Pickled products, of the class High-strength low-alloy steel (HSLA) with grade 650MP properties, for the automotive parts and agricultural segments.

## **5D. Trend Information**

### *Steel*

The WSA expects apparent steel demand to grow by 0.5% worldwide in 2017 and decrease 2.0% in China. The IABr estimates domestic sales of 16.9 million tons in 2017, with apparent consumption of 18.5 million tons.

### *Mining*

In 2016, the seaborne iron ore market made a slight recovery after a strong downward trend due to the increased supply capacity in Australia and Brazil in the previous years. In response to the slowdown in macroeconomic indicators that stretched from 2015 to mid-February 2016, when iron ore prices reached US \$42.90/dmt, the Chinese government promoted credit expansion and stimulated investments in steel-intensive sectors such as infrastructure and construction.

Moreover, the closure of low-efficiency mills resulted in an increase in the utilization capacity, which, coupled with higher steel demand, led to improved margins and higher iron ore prices. In this context, iron ore prices increased 5.3% in 2016 compared to 2015, reaching an average of US \$58.45/dmt (Platts, Fe 62%).

Chinese annual iron ore imports increased by 7.5% when compared to 2015, reaching 1.02 billion tons, while the global seaborne iron ore market grew by 4.5% to 1.41 billion tons.

## 5E. Off-Balance Sheet Arrangements

In addition to the debt that is reflected on our balance sheet, we are contingently liable for the off-balance concession payments and also for “take-or-pay” contractual obligations. The following table summarizes all of the off-balance sheet obligations for which we are contingently liable and which are not reflected under liabilities in our consolidated financial statements:

### Contingent Liability with Respect to Consolidated and Non-Consolidated Entities as of December 31, 2016

|                            | Aggregate Amount            | Maturity                        |
|----------------------------|-----------------------------|---------------------------------|
|                            | <i>(In millions of R\$)</i> |                                 |
| <b>Guarantees of Debt:</b> |                             |                                 |
| <b>Transnordestina</b>     | 2,597                       | Until 09/19/2056 and indefinite |

### Contingent Liability for Concession Payments <sup>(1)</sup> (amounts in thousands of R\$):

| Concession                               | Type of service  | 2017  | 2018  | 2019  | 2020  | After 2020 | Total  |
|--|--|-------|-------|-------|-------|------------|--------|
| FTL (Ferrovia Transnordestina Logística) | 30-year concession granted on December 31, 1997, renewable for another 30 years, to develop public service and operating the railway system in northeastern Brazil. The northeastern railway system covers 4238 kilometers of railway network and operates in Maranhão, Piauí, Ceará, Paraíba, Pernambuco, | 8,676 | 8,676 | 8,676 | 8,676 | 60,732     | 95,436 |

|       |   |                |                |                |                |                  |                  |
|-------|---|----------------|----------------|----------------|----------------|------------------|------------------|
| Tecar | Alagoas and Rio Grande do Norte. Concession to operate the TECAR, a solid bulk terminal, one of the four terminals that make up the Port of Itaguai, located in Rio de Janeiro. The concession was renewable and the agreement expires in 2047. 25-year concession started in July 2001, renewable for another 25 years to operate the container terminal at the Port of Itaguai. | 100,217        | 100,217        | 100,217        | 100,217        | 2,705,859        | <b>3,106,727</b> |
| Tecon |   | 28,996         | 28,996         | 28,996         | 28,996         | 159,478          | <b>275,462</b>   |
|       |   | <b>137,889</b> | <b>137,889</b> | <b>137,889</b> | <b>137,889</b> | <b>2,926,069</b> | <b>3,477,625</b> |

(1) Other consortia members are also jointly and severally liable for these payments.

## “Take-or-Pay” Contractual Obligations

| Type of service   | Payments in the period (in millions of R\$) |                  |                  |                |                |                | After 2020       | Total            |
|---|---|------------------|------------------|----------------|----------------|----------------|------------------|------------------|
|   | 2015  | 2016             | 2017             | 2018           | 2019           | 2020           |                  |                  |
| Transportation of iron ore, coal, coke, steel products, cement and mining products. | 197,646                                     | 873,186          | 767,031          | 767,031        | 767,031        | 746,150        | 3,672,166        | 6,719,409        |
| Supply of power, natural gas, oxygen, nitrogen, argon and iron ore pellets.         | 1,023,465                                   | 621,551          | 261,542          | 40,524         | 40,524         | 40,524         | 40,522           | 423,636          |
| Processing of slag generated during pig iron and steel production                   | 104,013                                     | 49,487           | 6,013            | 6,013          | 6,013          | 6,013          | 13,528           | 37,580           |
| Manufacturing, repair, recovery and production of ingot casting machine units.      | 127,776                                     | 36,765           | 15,005           | 5,665          | 5,665          |                |                  | 26,335           |
|   | <b>1,452,900</b>                            | <b>1,580,989</b> | <b>1,049,591</b> | <b>819,233</b> | <b>819,233</b> | <b>792,687</b> | <b>3,726,216</b> | <b>7,206,960</b> |

**Guarantees of Debt**

We guarantee 100% of the loans from BNDES and BNB have granted to TLSA and 49.15% of the debentures held by FDNE and issued by TLSA. The total debt outstanding amount we guaranteed as of December 31, 2016, was R\$2,597 million, considering only the portion of the debentures we guarantee.

Under the TLSA Investment Agreement we and our partners, Valec and FDNE, agreed on a budget of R\$7.5 billion to complete the construction of the Northeastern Railway System II. A revised budget of approximately R\$11.2 billion is under review and up for approval by ANTT. If the construction of Northeastern Railway System II requires funds in addition to the budget, they will be provided by us or third parties under Trackage Right Agreements.

**Contingent Liability for Concession Payments**

***FTL***

As of December 31, 2016, we held 90.78% of the capital stock of FTL, which has a concession to operate the Northeastern Railway System I until 2027, renewable for an additional 30 years. As of December 31, 2016, FTL had R\$95.4 million in concession payments outstanding over the remaining 11 years of the concession.

***Tecar***

We hold the concession to operate TECAR, a solid bulks terminal, one of four terminals that form the Itaguaí Port, located in the State of Rio de Janeiro. In 2015, we achieved the anticipated contract renewal for additional 25 years and, accordingly, the expiration date was postponed from 2022 to 2047. Itaguaí Port, in turn, is connected to the Presidente Vargas Steelworks and CSN Mineração by the Southeastern railway system. Our imports of coal and coke are made through this terminal. Under the terms of the concession, we have the obligation to ship at least 3.0 million tons of bulk cargo annually and to provide port service to ship 2.0 million tons of third parties' iron ore and pellets cargoes. As of December 31, 2016, R\$3,107 million was outstanding over the remaining 31 years of the concession.

***Sepetiba Tecon***

We own 99.99% of Sepetiba Tecon S.A., or TECON, which holds a concession to operate, for a 25-year term (which can be renewed for a maximum of 70 years), the container terminal at the Itaguaí Port, located in the State of Rio de Janeiro. As of December 31, 2016, R\$275 million of the cost of the concession was outstanding and payable over the remaining 10 years of the concession. For more information, see “Item 4D. Property, Plant and Equipment—Capital Expenditures—Planned Investments.”

***Transportation of iron ore, coal, coke, steel products, cement and mining products***

***MRS Logística S.A.***

***Transportation of Iron Ore, Coal and Coke to Volta Redonda***

For 2016, the volume set for iron ore and pellets is 5,181,000 tons and volume set for coal, coke and other smelter products is 2,552,000 with a guarantee of payment at least 85% of forecast annual revenue.

***Transportation of Iron Ore for Export from Itaguaí***

The volume set is 34,521,000 tons in 2016, with a guarantee of payment at least 85%. We may increase or decrease the volume set in the agreement every year by up to 10% and 15%, respectively, taking into consideration the volume informed in the previous year.

***Transportation of Steel Products***

The volume set is 1,630,000 tons in 2016 with an acceptable variation of up to 10%, with a guarantee of payment at least 80% of forecast annual revenue. The agreement covers the transportation of steel products from the Presidente Vargas Steelworks to third party terminals and customers.

***Cement Transportation***

This agreement covers transportation of bagged cement from Presidente Vargas Cement Plant to our terminals. Volumes set is 573,751 tons for 2016 with a guarantee of payment at least 80% of forecast annual revenue.

***Ferrovias Centro Atlântica - FCA***

***Transportation of Limestone***

This agreement covers transportation of limestone from the city of Arcos to the city of Volta Redonda.

Volumes set for limestone is 1,475,000 tons in 2016 with 90% of performance volume guarantee.

*Transportation of Clinker*

This agreement covers transportation of clinker products from the city of Arcos to the city of Volta Redonda.

In 2016 the volume set is 330,000 tons with a guarantee of payment of at least 90%.

The calculation of “take-or-pay” considers the total volume performed in both contracts - clinker and limestone – regardless of the percentage transported of each one.

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***Supply of power, natural gas, oxygen, nitrogen, argon and iron ore pellets.***

To secure gas supply (oxygen, nitrogen and argon), in 1994 we signed a 22-year “take-or-pay” agreement with White Martins by which we are committed to acquire at least 90% of the gas volume guaranteed in the contract. Under the terms of the agreement, we are not required to advance funds raised against future processing charges if the supplier is unable to meet its financial obligations. The original term ended on November 17, 2016; however, the supply is still ongoing while negotiation of a new agreement is underway.

To secure natural gas supply, in 2007 we signed a five-year “take-or-pay” agreement with CEG Rio, by which we are committed to acquire at least 70% of the gas volume provided by the supplier. Under the terms of the agreement, we are not required to advance funds raised against future processing charges if the supplier is unable to meet its financial obligations. In addition, if we do not acquire the minimum volume agreed, the amount paid which relates to that difference may be compensated in future years, including one year after the contract’s expiration. The original term is valid until June 30, 2017. Negotiation of a new agreement is underway.

To secure energy supply, in 2001 we entered into a 20-year agreement. According to the “take or pay” clause, we are committed to acquire at least 80% of the annual energy volume contracted from the supplier, Copel.

***Processing of slag generated during pig iron and steel production***

CSN undertakes to acquire at least 2,400 metric tons of blast furnace mud for processing at CSN's mud concentration plant. This agreement is valid until March 31, 2023.

The supplier undertakes to perform the scrap recovery services resulting from the process of production of pig iron and steel from Presidente Vargas Steelworks, receiving by this process the equivalent in value of the result of multiplying the unit price (US\$/t) by the total Liquid Steel CSN’s Mill production, with a guarantee of a minimum production of liquid steel corresponding to 200,000 tons. This agreement is valid until September 30, 2019.

***Manufacturing, repair, recovery and production of ingot casting machine units.***

The supplier provides continuous casting machines maintenance services in steel production at Presidente Vargas Steelworks, with a guarantee of a minimum production of 365,000 tons per month. This agreement is valid until August 31, 2017.

**5F. Tabular Disclosure of Contractual Obligations**

The following table represents our long-term contractual obligations as of December 31, 2016:

| <b>Contractual obligations</b>                         | <b>Payment due by period</b> |                             |                  |                  |                              |
|--|------------------------------|-----------------------------|------------------|------------------|------------------------------|
|  | <b>Total</b>                 | <b>Less than<br/>1 year</b> | <b>1-3 years</b> | <b>3-5 years</b> | <b>More than<br/>5 years</b> |
| <b>Long-term accrued finance charges<sup>(1)</sup></b> | 17,824                       | 2,917                       | 4,943            | 2,493            | 7,471                        |
| <b>Taxes payable in installments</b>                   | 108                          | 25                          | 19               | 15               | 49                           |
| <b>Long-term debt <sup>(2)</sup></b>                   | 28,324                       | 0                           | 12,724           | 9,691            | 5,908                        |
| <b>“Take-or-Pay” contracts</b>                         | 7,207                        | 1,049                       | 1,638            | 1,460            | 3,060                        |
| <b>Derivatives swap agreements<sup>(3)</sup></b>       | 6                            | 0                           | 6                | 0                | 0                            |
| <b>Concession agreements<sup>(4)</sup></b>             | 3,478                        | 138                         | 276              | 276              | 2,788                        |
| <b>Purchase obligations:</b>                           |                              |                             |                  |                  |                              |
| <b>Raw materials <sup>(5)</sup></b>                    | 1,955                        | 1,032                       | 923              | 0                | 0                            |
| <b>Maintenance <sup>(6)</sup></b>                      | 609                          | 349                         | 229              | 31               | 0                            |
| <b>Utilities/Fuel <sup>(7)</sup></b>                   | 3,166                        | 989                         | 1,800            | 377              | 0                            |
| <b>Total</b>   | 5,730                        | 2,370                       | 2,952            | 408              | 0                            |

(1) These accrued finance charges refer to the cash outflow related to the contractual interest expense of our long-term debt and were calculated using the contractual interest rates taken forward to the maturity dates of each contract.

(2) These amounts were presented net of transaction costs and issue premiums.

(3) Derivative swap agreements were calculated based on market prices on December 31, 2016, for futures with similar maturity to our derivative swap agreements.

(4) Refers to TECON, TECAR and FTL concessions agreements

(5) Refers mainly to purchases of coal, tin, aluminum and zinc, which comprise part of the raw materials for steel manufacturing and take-or-pay contracts.

(6) We have outstanding contracts with several contractors in order to maintain our plants in good operating conditions; due to the strong demand for specialized maintenance service, the term of some of these contracts is for more than one year.

(7) Refers mainly to natural gas, power supply and cryogenics, which are provided by limited suppliers; and with some of which we maintain long-term contracts.

**5G. Safe Harbor**

See “Forward-Looking Statements.”

**Item 6. Directors, Senior Management and Employees****6A. Directors and Senior Management****General**

We are managed by our Board of Directors (*Conselho de Administração*), which consists of up to eleven members, and our Board of Executive Officers (*Diretoria Executiva*), which consists of two to nine Executive Officers with no specific designation (one of whom is the Chief Executive Officer). In accordance with our bylaws (*Estatuto Social*), each Director is elected for a term of two years by our shareholders at an annual shareholders' meeting. Our bylaws require our employees to be represented by one Director on the Board of Directors. The members of the Board of Executive Officers are appointed by the Board of Directors for a two-year term.

Our Board of Directors is responsible for setting general guidelines and policies for our business and our Board of Executive Officers is responsible for the implementation of such guidelines and policies and for our day-to-day operations. As of the date of this annual report, our Board of Directors was comprised of one Chairman and five members, and our Board of Executive Officers was comprised of our Chief Executive Officer and four Executive Officers.

Our Directors and Executive Officers as of the date of this annual report are:

| Name                                    | Position                | Age <sup>1</sup> | First Elected on   | Last Elected on    |
|---|-------------------------|------------------|--------------------|--------------------|
| <i>Board of Directors</i>               |                         |                  |                    |                    |
| <b>Benjamin Steinbruch</b>              | Chairman                | 64               | April 23, 1993     | July 03, 2017      |
| <b>Fernando Perrone</b>                 | Member                  | 70               | September 26, 2002 | July 03, 2017      |
| <b>Fabiam Franklin</b>                  | Member                  | 50               | April 28, 2016     | July 03, 2017      |
| <b>Yoshiaki Nakano</b>                  | Member                  | 73               | April 29, 2004     | July 03, 2017      |
| <b>Antonio Bernardo Vieira Maia</b>     | Member                  | 58               | April 30, 2013     | July 03, 2017      |
| <b>Léo Steinbruch</b>                   | Member                  | 49               | April 28, 2015     | July 03, 2017      |
| <i>Board of Executive Officers</i>      |                         |                  |                    |                    |
| <b>Benjamin Steinbruch</b>              | Chief Executive Officer | 64               | April 30, 2002     | 29 September, 2017 |
| <b>David Moise Salama</b>               | Executive Officer       | 51               | August 2, 2011     | 29 September, 2017 |
| <b>Luis Fernando Barbosa Martinez</b>   | Executive Officer       | 54               | August 2, 2011     | 29 September, 2017 |
| <b>Pedro Gutemberg Quariguasi Netto</b> | Executive Officer       | 52               | May 11, 2016       | 29 September, 2017 |
| <b>Marcelo Cunha Ribeiro</b>            | Chief Financial Office  | 40               | 29 September, 2017 | 29 September, 2017 |

<sup>1</sup>Age as of 05 December, 2017.

The next election for our Board of Directors is expected to take place on April 2019. The next election for our Board of Executive Officers is expected to take place in September 2019.

## Board of Directors

*Benjamin Steinbruch.* Mr. Steinbruch has been a member of our Board of Directors since April 23, 1993, and has simultaneously held the positions of Chairman since April 28, 1995 and CEO since April 30, 2002, and is in charge of mining, railways and institutional strategy. Since 2017, he has been Chairman of the Board of Directors of the Jockey Club of São Paulo, a member of the Board of Economic and Social Development since 2014 and member of the Administrative Board of the Portuguese Chamber, 1<sup>st</sup> Vice-President of the Federation of Industries of the State of São Paulo - FIESP since September 2004, member of FIESP's Superior Strategic Board, advisor to the Robert Simonsen Institute and member of the Interinstitutional Advisory Board, or CCI, of the Superior Court of the State of São Paulo. Over the past five years, he also served as Chairman of the Board of Directors and CEO of Vicunha Siderurgia S.A., Chairman of the Board of Directors of Nacional Minérios S.A., Transnordestina Logística S.A. and FTL - Ferrovia Transnordestina Logística S.A. Currently he holds the position of Vice Chairman of the Board of Directors of Textília S.A., Chairman of the Board of Directors of Vicunha Aços S.A., Fibra Cia. Securitizadora de Créditos Imobiliários and Banco Fibra S.A., member of the Board of Directors of Elizabeth S.A. – Indústria Têxtil, Vicunha Participações S.A. and Vicunha Steel S.A., Officer of Rio Purus Participações S.A. and Officer of Rio Iaco Participações S.A., Administrator of Fazenda Alvorada de Bragança Agro-Pastoril Ltda., Ibis Agrária Ltda., Ibis II Empreendimentos Ltda., Ibis Participações e Serviços Ltda. and Haras Phillipson Ltda. (all these companies belong to our controlling group), Chairman of the Board of Directors of Companhia Metalúrgica Prada and CSN Mineração S.A. (both companies are controlled by us), Chairman of the Deliberative Council of the CSN Foundation . Mr. Steinbruch graduated from the Fundação Getúlio Vargas – FGV/SP Business School and specialized in Marketing and Finance also at Fundação Getúlio Vargas - FGV/SP.

*Fernando Perrone.* Mr. Perrone has been a member of our Board of Directors since September 26, 2002, and a member of our Audit Committee since June 24, 2005. He was our Infrastructure and Energy Executive Officer from July 10, 2002, to October 2, 2002. Over the past five years, he served as member of the Board of Directors of Profarma - Distribuidora de Fármacos S.A., and a member of the Board of Directors of João Fortes Engenharia S.A., Energia Sustentável S.A., and FTL – Ferrovia Transnordestina Logística S.A. (controlled by us), he is also a deputy member of the Board of Directors of Transnordestina Logística S.A (company joint controlled by us). He also serves as an independent consultant in the infrastructure area. Mr. Perrone graduated in Business from a program sponsored by "Chimica" Bayer S.A., holds a Law degree from Universidade Federal Fluminense – UFF/RJ and has a graduate degree in Economics in the area of Capital Markets from Fundação Getúlio Vargas – FGV/SP.

*Fabiam Franklin.* Mr. Franklin has been a member of our Board of Directors since April 28, 2016. Since April 4, 2016 he has been serving as Chairman of the Advisory Council of CSN's Stock Investment Fund (*CSN Invest Fundo de Investimentos em Ações*) and is a member of the Board of Directors of the Brazilian Association of Metallurgy and Mining (*Associação Brasileira de Metalurgia, Materiais e Mineração*) since April 2015. He has also been a manager of the CSN Financial Education Program since 2008, and has served as General Manager of Blast Furnaces at CSN since 2002. Mr. Franklin graduated in Metallurgical Engineering from Universidade Federal Fluminense – UFF/RJ and holds a graduate degree in Reduction Metallurgy, from the –Mc Master University, Hamilton, Canada, and an MBA from Fundação Dom Cabral – Belo Horizonte/MG. Mr. Franklin is currently studying for a master's in Economics at IBMEC.

*Yoshiaki Nakano.* Mr. Nakano has been a member of our Board of Directors since April 29, 2004, and a member of our Audit Committee since June 24, 2005. He also serves as a member of the Board of Directors of Transnordestina Logística S.A. (company joint controlled by us) and, over the past five years, Mr. Nakano has been a professor and Officer at the School of Economics of Fundação Getúlio Vargas – FGV/SP, a member of the Economy Superior Council (Conselho Superior de Economia - COSEC) of FIESP/Instituto Roberto Simonsen, and a board member of the Fundação de Amparo à Pesquisa do Estado de São Paulo – FAPESP, until 2015. Previously, Mr. Nakano served as Special Secretary for Economic Affairs in the Ministry of Finance and as Finance Secretary of the State of São Paulo. Mr. Nakano graduated in Business Administration from Fundação Getúlio Vargas and has an MBA and a Ph.D. from Cornell University, USA.

*Antonio Bernardo Vieira Maia.* Mr. Maia was elected member of our Board of Directors on April 30, 2013 and has been a member of our Audit Committee since August 8, 2013, serving as Chairman of the Audit Committee since May 6, 2014, and of the Financial Committee from October 7, 2014 to December 31, 2016. He has also been CEO of BRG Capital Ltda. since July 2005 and is a member of the Board of Directors of Transnordestina Logística S.A. (company joint controlled by us) and of FTL – Ferrovia Transnordestina Logística S.A. and CSN Mineração S.A. (controlled by us). From April 1995 to May 2005 he was Officer of Credit Suisse/Banco Garantia de Investimentos S.A. He began his career in Citibank Brazil, as a trainee, in 1982 and moved to New York in 1986, where he first worked as an Institutional Investment Analyst of Citigroup for Latin America, until become an Officer of Citibank New York. Prior to that, he worked as an associate at Banco Bozano Simonsen de Investimentos in Rio from August 1979 to December 1981, and he served as a member of the Board of Directors of Banque Bénédict Hentsch & Cie SA, Geneva, Switzerland, from April to December 2006. He graduated in 1981 with a degree in Business and Public Administration from Fundação Getúlio Vargas.

*Léo Steinbruch:* Mr. Steinbruch has been member of our Board of Directors since April 28, 2015, and was elected as vice chairman of the Board of Directors on May 11, 2016. He is also member of the Board of Directors of Elizabeth S.A. Indústria Têxtil, Vicunha Aços S.A., Vicunha Participações S.A., Vicunha Steel S.A. and Textília S.A. He is also an Executive Officer at CFL Participações S.A. and at Taquari Participações S.A., and administrator of Fazenda Santa Otília Agropecuária Ltda. (all these companies are part of our controlling group).



## Board of Executive Officers

In addition to Mr. Steinbruch, the following people were members of our Board of Executive Officers as of the date of this annual report:

*David Moise Salama*, Mr. Salama was elected as an Executive Officer on August 2, 2011, is in charge of the real estate, insurance and credit areas, and has also been our Investor Relations Executive Director since May 30, 2016. He has been serving at CSN since 2006, having acted as Investor Relations Manager until August 2011. He is also currently serving as Executive Officer of Estanho de Rondônia S.A. and is a member of the Board of Directors of Companhia Florestal do Brasil, CSN Mineração, Sepetiba Tecon S.A., Lusosider – Aços Planos S.A., Lusosider Productos Siderúrgicos S.A., and Lusosider Ibérica (all companies controlled by us). He is also a deputy member of the Deliberative Council of Caixa Beneficente dos Empregados of CSN, or CBS and deputy member of the Board of Directors of Transnordestina Logística S.A. (a company jointly controlled by us) and FTL – Ferrovia Transnordestina Logística S.A. (controlled by us). Prior to joining CSN, Mr. Salama acted as Financial Officer at Tecnisa Engenharia e Comércio, Birmann Comércio e Empreendimentos and Goldfarb Comércio e Construções, was the head of consolidated financial information of Unilever Brasil and acted as senior auditor at PwC. Mr. Salama graduated in Accounting and has an MBA in Finance, both from the School of Economics, Business and Accounting of the Universidade de São Paulo / FEA-USP. He complemented his academic education by attending the Oxford Advanced Management and Leadership Program of Saïd Business School at Oxford University, England, and the Harvard Law School Program on Negotiation at Harvard University, United States.

*Luis Fernando Barbosa Martinez*, Mr. Martinez was elected as an Executive Officer on August 2, 2011, and is in charge of the commercial and logistic areas of the steel, cement and special sales segment. He has been serving CSN since 2002, having previously acted as Sales Officer and Director of Nacional Minérios S.A. (Nacional Minérios S.A. ceased to exist on December 31, 2015). Mr. Martinez is also a member of the Board of Directors of Associação Brasileira de Metalurgia, Materiais e Mineração, or ABM, and deputy member of the Board of Directors of FTL – Ferrovia Transnordestina Logística and Transnordestina Logística S.A.. He is also currently serving as an Officer of Estanho de Rondônia S.A., Mineração Nacional S.A., CSN Energia, S.A. and Stahlwerk Thüringen GmbH, and as member of the Board of Directors of CSN Mineração S.A., Companhia Florestal do Brasil, Companhia Metalúrgica Prada (all companies controlled by us) and MRS Logística S.A. (a company jointly controlled by us) and a member of the Deliberative Council of Caixa Beneficente dos Empregados da Companhia Siderúrgica Nacional, or CBS. Since March 2017 he is also member of the Board of Officers of Câmara de Comércio e Indústria Brasil – Alemanha. Prior to joining CSN, Mr. Martinez was a Sales Officer at Alcan Alumínio do Brasil S.A., having worked at that company for 14 years in different departments (processing, quality, product/market development and sales). He also acted as Executive Officer of the Brazilian Center of Steel Construction - CBCA and of the Brazilian Association of Metallic Construction, or ABCEM,, and he was president of the Brazilian Association of Steel Packaging - ABEAÇO. Mr. Martinez graduated with a degree in Metallurgical Engineering from Instituto Mauá de Tecnologia, or IMT, has a graduate degree in Industrial Management from the School of Production Engineering of the Universidade de São Paulo, and also graduated from the Corporate Management Development Program at Alcan Aluminum Limited in Montreal, Canada.

*Pedro Gutemberg Quariguasi Netto*. Mr. Quariguasi was elected as an Executive Officer on May 11, 2016, and until June, 2017, was in charge of the production of steel area. Currently, he holds the position of Executive Officer in charge of the steel operational area. During the few last years, Mr. Quariguasi acted as CEO of Vale in Mozambique and as Global Officer of Coal of Vale at Mozambique and Australia from March 2014 until April 2016, and as Partner and Commercial and Marketing Officer at B&A Mineração from May 2012 until September 2013. He is also member of the Board of Directors of MRS Logística S.A. (a company jointly controlled by us), and CSN Mineração S.A. (controlled by us). Mr. Quariguasi has a degree in Metallurgical Engineering from Universidade Federal Fluminense,



a Master degree in Metallurgical Engineering from Pontificia Universidade Católica do Rio de Janeiro, a PhD in Metallurgical Engineering from McGill University, Canada, and an MBA in Finance, Corporate Strategy and Economics from McKinsey & Company.

Marcelo Cunha Ribeiro. was elected as an Executive Officer on September 29, 2017, and is in charge of the treasury, controller, tax and accounting areas. During the few last years, Mr. Ribeiro acted as CFO of St. Marche Group, Vice President of Finance and Investor Relations of Restoque Comércio e Confecções de Roupas SA, CFO of Grupo SBF (GP Investimentos Ltd), Managing Director of the Private Equity área of GP Investimentos Ltd and CFO of San Antonio International Ltd. He was also a member of the Board of Directors of Hopi Hari SA, Telemar Norte Leste SA (Oi SA), Contax Participações SA, Estácio Participações SA, Magnesita Refratários SA, BR Towers SPE1 SA. Mr. Ribeiro graduated in Production Engineering from the University of São Paulo and has a MBA from Harvard Business School.

Mr. Benjamin Steinbruch and Mr. Léo Steinbruch are cousins. There are no other family relationships between any of the persons named above. The address for all of our directors and executive officers is Av. Brigadeiro Faria Lima, 3400, 20th floor, Itaim Bibi, city of São Paulo, State of São Paulo, Brazil (telephone number 55-11-3049-7100).

## **Indemnification of Officers and Directors**

There is no provision for or prohibition against the indemnification of officers and directors in Brazilian law or in our bylaws. Officers are generally not individually liable for acts performed within the course of their duties. We either indemnify or maintain directors' and officers' liability insurance insuring our Directors, our Executive Officers and certain key employees against liabilities incurred in connection with their respective positions with us.

## **6B. Compensation**

For the year ended December 31, 2016, the aggregate compensation paid by us to all members of our Board of Directors and the members of our Board of Executive Officers for services in all capacities was R\$72.2 million, which includes salaries, bonuses, profit sharing arrangements and benefits, such as medical assistance, pension plan and life insurance, among others. See “—Item 6D. Employees” for a brief description of our profit sharing arrangements.

## **6C. Board Practices**

### **Fiscal Committee and Audit Committee**

Under Brazilian Corporate Law, shareholders may request the appointment of a Fiscal Committee (*Conselho Fiscal*), which is a corporate body independent of management and our external auditors. The primary responsibility of the Fiscal Committee is to monitor management's activities, review the financial statements, and report its findings to the shareholders. Currently, we do not have a Fiscal Committee in place.

In June 2005, an Audit Committee (*Comitê de Auditoria*) was appointed in compliance with SEC's rules, which is composed of independent members of our Board of Directors. The Audit Committee is responsible for recommending to the Board of Directors the appointment of the independent auditors, reporting on our auditing policies and our annual audit plan prepared by our internal auditing team, as well as monitoring and evaluating the activities of the external auditors. Our Audit Committee has also been tasked with identifying, prioritizing and submitting actions to be implemented by our Executive Officers, analyzing our annual report and our financial statements, and making recommendations to our Board of Directors.

The Audit Committee is currently composed of Mr. Fernando Perrone, Mr. Yoshiaki Nakano and Mr. Antonio Bernardo Vieira Maia and it may be assisted by an outside consultant. All members of our Audit Committee satisfy the audit committee membership independence requirements set forth by the SEC and the NYSE. All members of our Audit Committee have been determined by our Board of Directors to qualify as an “audit committee financial expert” within the meaning of the rules adopted by the SEC relating to the disclosure of financial experts on audit committees in periodic filings pursuant to the Exchange Act.

For information on the date of election and term of office of the members of our Board of Directors and Board of Executive Officers, see “Item 6A. Directors and Senior Management.”

## **Service Contracts**

We permit our directors to continue to participate in our employee pension plan after ceasing to be a director of our Company.

## **6D. Employees**

As of December 31, 2014, 2015 and 2016, we had 22,801 and 23,736 and 23,993 employees, respectively. As of December 31, 2016, approximately 3,400 of our employees were members of the Steelworkers' Union of Volta Redonda and region, which is affiliated with the Força Sindical since 2012, a national union. We believe we have a good relationship with Força Sindical. We have collective bargaining agreements, renewable annually on May 1<sup>st</sup> of every year. Moreover, we have members affiliated with other unions, such as the Engineers' Union with 12 members, the Accountants' Union with 3 members and the Workers' Unions from Arcos, Casa de Pedra, Camaçari, Recife and Araucária, with a total of 63 members. At all other companies controlled by CSN, such as Prada, ERSA, CSN Mineração and Transnordestina, we have a total of 1,400 members.

In March 1997, we established an employee profit sharing plan. All employees participate in this plan and earn bonuses based on our results, our business unit results, the employee's individual results and the employee's competence assessment.

We are the main sponsor of this non-profit entity established in July 1960 and are primarily engaged in the payment of benefits that supplement the official government Social Security benefits to participants. In its capacity as sponsor, CSN carries out transactions involving the payment of contributions and recognition of actuarial liabilities calculated in defined benefit plans. See further details in Note 28 to our consolidated financial statements contained in "Item 18. Financial Statements."

## 6E. Share Ownership

The Steinbruch family, which includes Mr. Benjamin Steinbruch, our Chairman and Chief Executive Officer holds an indirect majority ownership interest in Vicunha Aços S.A., Rio Iaco Participações S.A., Vicunha Têxtil S.A. and CFL Participações S.A., our controlling shareholders.

All of our Executive Officers and members of our Board of Directors held an aggregate of 90,526 shares of our outstanding common shares as of December 31, 2016.

## Item 7. Major Shareholders and Related Party Transactions

### 7A. Major Shareholders

On December 31, 2016, our capital stock was composed of 1,387,524,047 common shares. Our capital stock is entirely composed of common shares and each common share entitles the holder to one vote at our shareholders' meetings.

The following table sets forth, as of December 31, 2016, the number of our common shares owned by our major shareholders:

| Name of Person or Group                    | Common Shares |                               |
|--|---------------|-------------------------------|
|  | Shares Owned  | Percent of Outstanding Shares |
| Vicunha Aços S.A. <sup>(1)</sup>           | 682,855,454   | 49.21%                        |
| Rio Iaco Participações S.A. <sup>(1)</sup> | 58,193,503    | 4.19%                         |
| Vicunha Textil S.A. <sup>(1)</sup>         | 4,927,000     | 0.36%                         |
| CFL Participações S.A. <sup>(1)</sup>      | 3,977,536     | 0.29%                         |

(1) Owned indirectly by the Steinbruch family, which includes Mr. Benjamin Steinbruch, Chairman of our Board of Directors and CEO, as well as other members of his family.

### 7B. Related Party Transactions

Our transactions with related parties consist of (i) transactions with our holding companies; (ii) transactions with subsidiaries, jointly controlled entities, associates, exclusive funds and other related parties; and (iii) other unconsolidated related parties, which are detailed in Note 20 to our consolidated financial statements included in “Item 18. Financial Statements.”

i. Vicunha Siderurgia S.A is a holding company set up for the purpose of holding equity interests in other companies and is our main shareholder, holding 50.32% of CSN’s voting shares. Rio Iaco Participações S.A is also a holding company and holds 4.29% of CSN’s voting capital.

ii. Our commercial and financial transactions with our subsidiaries, jointly controlled entities, associates, exclusive funds and other related parties are carried out at normal market prices and conditions, based on usual terms and rates applicable to third parties. We present details of such transactions in Note 20 of our consolidated financial statements.

We maintain relations with other unconsolidated related parties as CBS Previdência, Fundação CSN, Banco Fibra, Ibis Participações e Serviços Ltda, Arverdi Metalfer do Brasil S.A..

## **Item 8. Financial Information**

### **8A. Consolidated Statements and Other Financial Information**

See “Item 3. Key Information—Selected Financial Data” and “Item 18. Financial Statements” for our consolidated financial statements.

### **Legal Proceedings**

In the ordinary course of our business, we are party to several proceedings, both administrative and judicial, which we believe are incidental and arise out of our regular course of business. We believe that the outcome of the proceedings to which we are currently a party will not have a material adverse effect on our financial position, results of operations and cash flows. We have established provisions for all amounts in dispute that represent a probable loss based on the legal opinion of our internal and external legal counsels.

### ***Labor Contingencies***

As of December 31, 2016, we and our subsidiaries were defendants in 7,953 labor claims, for which a provision has been recorded in the amount of R\$485 million. Most of the claims relate to alleged subsidiary and/or joint liability with respect to our independent contractors, salary equalization, health hazard premiums and hazardous duty premiums, overtime pay, differences in the 40% fine on the severance pay fund (FGTS) deposits resulting from past federal government economic plans, and indemnity claims resulting from alleged occupational diseases or on-the-job accidents, breaks between working hours, and differences in profit sharing from 1997 to 1999 and from 2001 to 2003.

### ***Civil Contingencies***

These are mainly claims for indemnities within the civil judicial processes in which we are involved. Such proceedings result, in general, from contractual disputes and collection of values, claims for damages and compensations related to our commercial and industrial activities, real estate disputes and disputes aiming at restoring health insurance. As of December 31, 2016, a provision has been recorded in the amount of R\$138 million for civil claims.

We also classify as civil contingencies the administrative and judicial proceedings filed against us for alleged violation of environmental statutes, mainly as a result of our industrial activities, claims for regularization, indemnification or imposition of fines. As of December 31, 2016, the amount relating to probable losses for civil

contingencies relating to environmental issues was R\$8 million.

***Tax Contingencies***

Among our tax contingencies, there are charges for alleged non-payment of income tax and social contribution taxes in Brazil and also other charges, for which a provision of R\$182 million has been recorded in 2016.

***REFIS I, REFIS II and Advance Tax Payment Program***

In November 2009, we adhered to the REFIS I, a special settlement and installment payment program established by the Federal Government, to settle certain of our tax and social security liabilities due until November 2008. Law No. 12,865, dated October 9, 2013, later extended the original deadline of the REFIS I (originally November 2009) to December 2013 and allowed the submission of additional tax and social security liabilities under the program.

In November 2013, we adhered to the Tax Recovery Program for Profits of Foreign Subsidiaries, or REFIS II, a special settlement and installment payment program established by the Federal Government, to settle the Income Tax (IRPJ) and the Social Contribution on Net Income (CSLL) arising from the taxation of profits of foreign subsidiaries. We submitted to the REFIS II the outstanding debts related to the 2004-2009 fiscal years.

Our decision to join both the REFIS I and the REFIS II took into consideration the economic benefits provided by such settlement programs, such as discounts in the amounts of fines, interest and legal charges due, as well as the high costs of maintaining pending lawsuits.

In November 2014, we adhered to the Advance Tax Payment Program established by the Federal Government under Law 13.043/2014, which allowed settlement of active federal debts, including the debts that were covered by the REFIS I and REFIS II programs mentioned above, through an advance payment of 30% of the total amount due in cash and the offset of the remaining amount due with tax losses. The total amount included in the program was R\$1.603 million, resulting in an impact to the cash account of R\$502 million and a positive result of R\$79 million in our income statements. We are currently waiting for a formal notification to be issued by the Federal Revenue to consolidate the Tax Payment Program.

As of December 31, 2015, we started to consolidate CSN Mineração (formerly named “Congonhas Minérios”) as successor of Namisa in our results and financial reports, including its settlement and installment payment programs. In November 2013, Namisa adhered to the Tax Recovery Program for Profits of Foreign Subsidiaries, or REFIS II, established by the Federal Government to settle the Income Tax (IRPJ) and the Social Contribution on Net Income (CSLL), arising from the taxation of profits of foreign subsidiaries. Namisa did not adhere to the Advance Tax Payment Program. On December 31, 2016, the position of the company’s debt under the REFIS II was R\$63.5 million.

For more information, see Note 17 (Taxes Installments) to our consolidated financial statements included in “Item 14.a Financial Statements.”

### ***Antitrust***

In October 1999, CADE fined us, claiming that certain practices adopted by us and other Brazilian steel companies up to 1997 allegedly comprised a cartel. We challenged the cartel allegation and the imposition of the fine judicially and, on June 2003, obtained a partially favorable judgment by a federal trial court. CADE appealed the trial court decision and, in June 2010, a federal appellate court in Brasília held a judgment reversing the trial court’s decision and confirming the cartel allegation, as well as the fine imposed by CADE in the amount of R\$65 million. We appealed the decision of the appellate court to the Brazilian Superior Court of Justice. We have not yet recorded any provision in connection with this fine, as the risk of loss is classified as possible.



In September 2011, we received a request from the Economic Law Secretariat of the Ministry of Legal Affairs (*Secretaria de Direito Econômico do Ministério da Justiça*), or SDE to provide information related to the acquisition of shares of Usinas Siderúrgicas de Minas Gerais S.A., or Usiminas, which later evolved to the analysis by CADE of a concentration act. In October 2011, SDE involved the CADE and the Secretariat for Economic Monitoring (*Secretaria de Acompanhamento Econômico*), or SEAE on the subject and we provided the requested information to these antitrust bodies.

In April and July, 2012, CADE issued certain injunctive orders limiting our ability to, among other things, increase our equity stake in Usiminas or exercise our voting rights with the shares we already own.

On April 10, 2014, CADE issued its decision on the matter, and a Performance Commitment Agreement (*Termo de Compromisso de Desempenho*), or TCD, was executed by CADE and CSN. Under the terms of CADE's decision and the TCD, CSN shall reduce its equity stake in Usiminas, within a specified timeframe. The timeframe and reduction percentages are confidential. Furthermore, our political rights in Usiminas will continue to be suspended until we reach the thresholds established in the TCD. On March 24, 2016, we applied to CADE to partially suspend the TCD so that we are able to exercise certain political rights, namely that of appointing independent directors and members of the fiscal committee. On April 27, 2016 CADE granted our request, and on April 28, 2016, at USIMINAS' Annual General Meeting, we appointed two (2) independent directors and one (1) independent member of the fiscal committee of Usiminas, and their respective alternates. Even though these appointments are currently subject to litigation, there is no judicial order in place overturning or otherwise suspending their effects.

### ***Northeastern Railway System Proceedings***

The Federal Audit Court (*Tribunal de Contas da União*), or TCU, has initiated proceedings questioning the legality of the governmental authorizations for the segregation of the Northeastern Railway System in two sub-railway systems – Northeastern Railway System I (in operation by FTL) and Northeastern Railway System II (under construction by TLSA). According to the claim under this proceeding, the federal government should have done a new bid process to grant the concession for the construction of the new tracks of the Northeastern Railway System (Northeastern Railway System II).

We are unable to anticipate its outcome. The consequences of an unfavorable decision may include the loss by TLSA of the concession for Northeastern Railway System II, the imposition of additional investments in developing this sub-railway system and the acceleration of loans granted to TLSA, for which we are guarantors. See “Item 5E. Off-Balance Sheet Arrangements—Guarantees of Debt.” In addition, even if we are entitled to any indemnification in connection with a termination of the TLSA concession agreement for our investments in developing Northeastern Railway System II, this indemnification may be insufficient to cover our costs, expenses or losses and may be paid long after a decision terminating the concession, if at all.

In the course of this proceeding, the TCU has suspended further disbursements by government agencies, including the State Owed Railroad Company - Valec (*Valec Engenharia Construções e Ferrovias*) and the Northeast National Development Fund – FDNE (*Fundo Nacional de Desenvolvimento do Nordeste*), for the development of Northeastern Railway System II, which has contributed to a slow pace of construction of the new tracks.

ANTT has initiated proceedings claiming that FTL did not meet certain transportation targets for the Northeastern Railway System I in 2013 and seeking to terminate the TAC we executed with FTL, which had settled all claims of non-compliance by us with the original concession agreement of the Northeastern Railway System until 2012.

These procedures resulted in the resumption of the administrative proceeding which began in 2012 for ANTT to evaluate the occurrence of any relevant breach to the Concession Agreement. The consequences of an unfavorable decision may include the loss by FTL and TLSA of the concession for Northeastern Railway System, in case ANTT finds that the alleged breaches were severe enough and the reinstatement of penalties prior to 2013 and imposition of additional penalties.

### ***Other Legal Proceedings***

We are defendants in other proceedings at administrative and judicial levels, in the approximate amount of R\$ 25,845 million as of December 31, 2016 (R\$21,541 million as of December 31, 2015), of which R\$23,421 million relate to tax contingencies as of December 31, 2016 (R\$19,315 million as of December 31, 2015), R\$910.8 million to civil contingencies as of December 31, 2016 (R\$834 million as of December 31, 2015), R\$1,138 million to labor contingencies and social security contingencies as of December 31, 2016 (R\$1,033 million as of December 31, 2015), and R\$375.3 million to environmental contingencies as of December 31, 2016 (R\$359 million as of December 31, 2015). The assessments made by legal counsel define these contingencies as entailing a risk of possible loss and, therefore, no provision has been recorded.

Our main tax contingency relates to a R\$ 8,415 million tax assessment notice (as of December 31, 2016) issued against us for having allegedly failed to submit to taxation the capital gain resulting from the alleged sale of 40% of the shares of its former subsidiary Namisa (merged in December 31, 2015 by our subsidiary CSN Mineração,) to the Asian

Consortium. On May 2013, the São Paulo Regional Judgment Office (lower administrative court) issued a decision favorable to us and cancelled the tax assessment notice. Such decision was partially reviewed by the Administrative Board of Tax Appeals (CARF) and the tax assessment notice was partially reinstated. CSN and the Bureau of Federal Public Attorneys filed administrative appeals against the decision.

The same tax assessment notice informed above resulted in another contingency issued against Namisa, in a total amount of R\$2,457 million as of December 31, 2016. This tax assessment demands the payment of income tax and social contribution not paid in view of the alleged improper goodwill amortization from 2008 to 2011. On May 2013, the São Paulo Regional Judgment Office (Delegacia Regional de Julgamento), the lower administrative court, issued a decision favorable to Namisa and cancelled the tax assessment notice. Such decision was maintained by CARF. The Bureau of Federal Public Attorneys filed an administrative appeal against this decision.

As a consequence of the above mentioned tax assessment notices, CSN received new tax assessment notices in December 2015 and December 2016, in the total amount of R\$ 1,087 million and R\$ 1,113 million, respectively, for having allegedly improperly deducted interest expenses agreed in the pre-payment contracts between CSN and Namisa. We filed our defense before the São Paulo Regional Judgement Office (Delegacia Regional de Julgamento) and are waiting for a final administrative decision to be issued.

In 2010, CSN signed a Conduct Adjustment Agreement (TAC) with the State of Rio de Janeiro, with the commitment to carry out new studies and investments to upgrade the environmental control equipment of the Presidente Vargas Power Plant (UPV). This TAC initially estimated an investment in the amount of R\$216 million, which was later updated to R\$260 million, after obtaining more precise data on the costs of the projects. In 2013, CSN signed an amendment to the TAC regarding certain points, as well as to include new obligations determined by the State Environmental Agency (*Instituto Estadual do Ambiente*), or INEA resulting in an additional investment of R\$165 million, which has already been made. Due to the final deadline of the 2010 TAC, which would end in 2015, CSN, the State of Rio de Janeiro and INEA entered into a new TAC (TAC INEA 03/2016) on April 13, 2016. This TAC determined new investments in the amount of R\$178.5 million related to UPV adjustments, payment of environmental fines in the amount of R\$16 million and amounts related to the compensatory measure of R\$6.1 million that will be allocated to environmental programs in the region of Volta Redonda. Altho result in penalties, such as fines, lawsuits, interruptions at plants and in production or the termination of TAC 03/2016.

In July 2012, the Environmental Public Prosecutor of the State of Rio de Janeiro (Ministério Público Estadual do Rio de Janeiro) filed a judicial proceeding against us claiming that we must (i) remove all waste disposed in two areas used as an industrial landfill 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. The court denied these requests but ordered that we present a timetable to investigate the area and, if necessary, to remediate the potential issues raised by the Public Prosecutor. We presented a timetable considering the conclusion of all studies related to investigation phases, including the risk assessment and intervention plan, which were concluded in April 30, 2014. We presented the studies resulting from our research to INEA and the Prosecutor Office presented a response for the inconsistency of the studies, which we rejected, and there has been no return from INEA as of the date of this annual report. We have also received notices for lawsuits brought by certain home owners at Volta Grande IV Residential claiming indemnification for alleged moral and material damages.

On April 8, 2013, INEA fined us in the amount of R\$35 million in relation to the aspects involving the Volta Grande IV Residential requesting that we carry out the same actions under discussion in a July 2012 lawsuit. The fine imposed resulted in another legal action (annulment action) distributed on in January 2014 to the 10th Public Treasury Court of the Capital District (RJ), with the purpose of declaring null the fine applied by INEA. In turn, INEA filed another action (Fiscal Execution Action), whose purpose is to execute the amount of the fine imposed. The mentioned Fiscal Execution action was distributed in May 2014 for the 4th Civil Court of the Volta Redonda Active Debt Center (RJ). Currently, the Fiscal Execution Action is suspended until the judgment of the annulment action so that there are no conflicting decisions.

In August 2013, the Federal Environmental Public Prosecutor (Ministério Público Federal) filed a judicial civil proceeding against us with the same claims requested on the lawsuit brought by the Environmental Public Prosecutor

of the State of Rio de Janeiro, described above.

In 2015, the Public Federal Ministry filed a Public Civil Action against us to request the regularization of certain emissions at our sintering plants and the interruption of its activities. According to CONAMA Resolution 436/2011, we have until December 2018 to adjust them to the new standards required. Currently, CSN is fulfilling the state regulations.

119

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Concerning other allegedly contaminated areas at Volta Redonda city, the Public Ministry filed three Public Civil Actions aimed at environmental remediation and indemnification of the areas named Marcia I, II, III and IV, Wandir I and II and Reciclam. These demands are in the early stage and CSN is currently conducting environmental studies that will determine the extent of possible environmental damages from soil contamination as well as implementing actions in order to comply with the applicable laws. Once the studies are completed, these will be presented and attached to their respective proceedings.

In 2016, CSN was notified about a judicial proceeding filed against it by the Federal Public Prosecutor and the State Public Prosecutor of Rio de Janeiro, regarding alleged irregular deposit of residues named "Aterro Panco", claiming that we must recovery of degraded areas, repair damages to flora and fauna, repair damages to human health, material and moral damages to the environment. In view of the object of this judicial proceeding and the stage of the procedure, the value related is illiquid.

In 2004, the Federal Prosecutor's Office (*Ministério Público Federal*), or MPF, filed a Public Civil Action against us for alleged environmental contamination and pollution of the Paraíba do Sul River, allegedly caused by our industrial activity in the area. The court ruled against us, seeking to compensate for the environmental damage caused to the ecosystem. We appealed to the Superior Court of Justice, which upheld our appeal and returned the proceeding to its initial stage in order to carry out expert investigation, declaring the unfavorable decisions against us null and void.

In 1995, the Municipality of Volta Redonda filed a Public Civil Action for us to comply with the requirements of a Compensatory Environmental Program, or the PAC. We entered into an agreement with the Municipality of Volta Redonda, or TAC/1995. In May 2008, despite reporting our compliance with TAC/1995 in an approximate amount of R\$16 million, the Municipality of Volta Redonda disagreed with our declaration and requested the payment of outstanding obligations. After initial discussions, the Municipality of Volta Redonda filed a petition to execute the allegedly unfulfilled items for an amount of R\$172 million, which we contested. The lower level court appointed an expert team to determine our outstanding obligations and respective amount involved. A civil investigation is underway to verify (i) the environmental requirements for our project in city of Arcos (a Cement Plant); (ii) the monitoring and mitigation of the environmental impacts of the production activities; (iii) our compliance with the conditions of our environmental permits, including the creation of a museum within the Corumbá ecological station and the creation of a Private Natural Reserve (*Reserva Particular de Patrimônio Natural*), or RPPN; and (iv) actions for the preservation of the cultural heritage and adoption of compensatory measures. On February 2, 2011, a Conduct Adjustment Agreement (*Termo de Ajustamento de Conduta*), or TAC, was signed to fulfill the Public Prosecutor Office's requirements. The Public Prosecutor has questioned our compliance with the agreement, and we expect to enter into a new agreement with the Public Prosecutor's Office.

In 2009 and 2010, we signed agreements with the Public Prosecutor's Office seeking the recovery of environmental liabilities caused by coal mining in the Southern Region of Santa Catarina until the 1990s. The environmental liabilities covered by the agreements include restoration of certain areas. Our compliance with the agreement has been questioned by the Public Prosecutor, who may request fines, freeze bank accounts, seek agreement execution and/or begin a criminal investigation. We expect to resolve the pending proceeding.

Regarding mining issues, as a result of the accident involving a Brazilian mining company in November 2015, the State of Minas Gerais filed judicial proceedings against several companies in the mining segment, based on the State Dam Inventory disclosed in 2014. These proceedings have the scope to investigate the structures that do not have technical stability guaranteed by an external auditor or which stability was not attested due to a lack of documents or technical data.

On March, 2016, we were notified about the Public Civil Action filed against it by the State of Minas Gerais and the State Environmental Foundation (FEAM) questioning the stability of CSN's structure referred to as BAIA 4 – a small

structure installed inside the industrial area and used for collection of fine of the ore filtration process. Such proceeding was filed based on outdated information before presenting the defense. We clarified the plaintiffs to demonstrate the stability of Baia 4's structure, wherein the plaintiffs decided to drop the lawsuit. On August, 2016, we were notified of a similar Public Civil Action, regarding the structure of Dique do Engenho. We presented documents to the state authorities proving the stability and security of Dique do Engenho, and we expect that this lawsuit be dismissed in the same manner as the BAIA 4 Public Civil Action.

120

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### ***Independent Investigation***

In May 2017, our Audit Committee mandated external forensic and legal advisors to conduct an independent investigation regarding an allegation released in the media of allegedly illicit payments of R\$16.5 million by us during the construction of the Long Steel Plant in Volta Redonda [in the 2010 – 2014 period]. We have not been subject to any investigation by any governmental or any other enforcement agencies with regard to the allegation. In November 2017, the investigation was concluded, and the aforementioned allegation was not confirmed, nor was any other misconduct identified. As a result, we have not recorded any contingencies in this regard.

### **Dividend Policy**

#### ***General***

Subject to certain exceptions set forth in Brazilian Corporate Law, our bylaws require that we pay a yearly minimum dividend equal to 25% of our adjusted net profits, calculated in accordance with Brazilian Corporate Law. Proposals to declare and pay dividends in excess of the statutory minimum dividend requirement are generally made at the recommendation of our Board of Directors and approved by the vote of our shareholders. Any such proposal will be dependent upon our results of operations, financial condition, cash requirements for our business, future prospects and other factors deemed relevant by our Board of Directors. Until December 2000, it had been our policy to pay dividends on our outstanding common shares not less than the amount of our required distributions for any particular fiscal year, subject to a determination by our Board of Directors that such distributions would be inadvisable in view of our financial condition. In December 2000, our Board of Directors decided to adopt a policy of paying dividends equal to all legally available net profits, after taking into consideration the following priorities: (i) our business strategy; (ii) the performance of our obligations; (iii) the accomplishment of our required investments; and (iv) the maintenance of our good financial status.

Brazilian companies are also permitted to pay limited amounts of interest on Shareholders' equity to holders of equity securities and to treat these payments as an expense for Brazilian income tax purposes. These payments, net of withholding income tax, may be included in the computation of the statutory minimum dividend requirement has been met, subject to shareholder approval.

For dividends declared during the past four years, see "Item 3A. Selected Financial Data."

#### ***Amounts Available for Distribution***

At each Annual Shareholders' Meeting, our Board of Directors is required to recommend how our earnings for the preceding fiscal year are to be allocated. For purposes of Brazilian Corporate Law, a company's income net of income tax and social contribution for any one fiscal year, any accumulated losses from prior fiscal years and amounts allocated to employees' and management's participation in earnings, represents its "net profits" for that fiscal year.

In accordance with Brazilian Corporate Law, shareholders are entitled to receive as a mandatory dividend in each fiscal year, either (i) the portion of the profits as may be stated in our bylaws or, in the event the latter is silent in this regard, (ii) an amount equal to 50% of the net profits as increased or reduced by: (a) amounts allocated to the legal reserve; (b) amounts allocated to the contingency reserve and the tax incentive reserve, if any; and (c) any reversion of contingency reserves constituted in prior years. The payment of dividends may be limited to the amount of net profits realized during the fiscal year, provided that the difference is recorded as a reserve for unrealized profits. Profits



recorded in the reserve for unrealized profits, when realized and not absorbed by losses in subsequent years, have to be added to the first dividend declared after their realization. Under our bylaws, we are required to distribute to shareholders as dividends in respect of each fiscal year ending on December 31, to the extent profits are available for distribution, an amount equal to at least 25% of our adjusted net profits, which amount shall include any interest paid on capital during that year. See “Mandatory Dividends” below.

*Legal Reserve.* Under Brazilian Corporate Law, we are required to maintain a “legal reserve” to which we must allocate 5% of our “net profits” for each fiscal year until the amount of the reserve equals 20% of our paid-in capital. However, we are not required to make any allocations to our legal reserve in a year in which the legal reserve, when added to our other established capital reserves, exceeds 30% of our capital stock. The amounts allocated to such reserve must be approved by our shareholders in the Annual Shareholders’ Meeting, and may be used to increase our capital stock or to offset losses and, therefore, are not available for the payment of dividends.

*Discretionary (or Statutory) Reserves.* Under Brazilian Corporate Law, any corporation may provide in its by-laws for the creation of additional reserves, provided that the maximum amount that may be allocated to such reserves, the purpose of such reserves and the allocation criteria of such reserves are specified. There cannot be any allocation to such reserves if it affects payment of the Mandatory Dividend (as defined below). Our by-laws currently provide that our Board of Directors may propose to our shareholders the deduction of at least 1% from our net profits to be allocated to a Working Capital and Investments Reserve. Constitution of such reserve will not affect payment of the Mandatory Dividend. Our by-laws do not provide for any other discretionary reserve.

*Contingency Reserve.* Under Brazilian Corporate Law, a percentage of our “net profits” may be allocated to a contingency reserve for estimable losses that are considered probable in future years. Any amount so allocated in a prior year must either be reserved in the fiscal year in which the loss had been anticipated if the loss does not occur as projected or be written off in the event that the anticipated loss occurs.

*Tax Incentive Reserve.* Our shareholders in a shareholders’ meeting may, following a management’s proposal, allocate to a tax incentive reserve the portion of our “net profits” resulting from donations or governmental grants for investments, which may be excluded from the taxable basis of the Mandatory Dividend.

*Unrealized Profits Reserve.* Under Brazilian Corporate Law, the amount by which the Mandatory Dividend exceeds our realized net profits in a given fiscal year may be allocated to an unrealized profits reserve. Brazilian Corporate Law defines “realized net profits” for the period as the amount by which our “net profits” exceeds the sum of (i) positive equity net results and (ii) the net profits, gains or returns that will be realized after the end of the subsequent fiscal year. “Net profits” allocated to the unrealized profits reserve must be added to the next Mandatory Dividend distribution after those profits have been realized, if they have not been used to absorb losses in subsequent periods.

*Retained Earnings Reserve.* Under Brazilian Corporate Law, our shareholders may decide at a general shareholders’ meeting to retain a portion of our net profits as provided for in a previously approved capital expenditure budget. No allocation of net profits may be made to the retained earnings reserve in case such allocation affects payment of the Mandatory Dividend.

The balance of our profit reserves, except those for contingencies, tax incentives and unrealized profits, shall not be greater than our capital stock. If such reserves reach this limit, the manner in which such surplus is used will be decided at a shareholders’ meeting.

For purposes of determining reserve amounts, the calculation of “net profits” and allocations to reserves for any fiscal year are determined on the basis of financial statements prepared in accordance with Brazilian Corporate Law. The consolidated financial statements included herein have been prepared in accordance with IFRS and, although our allocations to reserves and dividends will be reflected in the financial statements, investors will not be able to calculate the allocations or required dividend amounts from the consolidated financial statements.

*Capital Reserve.* Under Brazilian Corporate Law, the capital reserve consists of premiums from the issuance of shares, goodwill reserves from mergers, sales of founders' shares, and sales of warrants. Amounts allocated to our capital reserve are not taken into consideration for purposes of determining Mandatory Dividends. Our capital stock is not currently represented by founders' shares. In our case, any amounts allocated to the capital reserve may only be used to increase our capital stock, to absorb losses that surpass accumulated profits and profit reserves, or to redeem, reimburse or purchase shares.

### ***Mandatory Dividend***

Under our bylaws, we are required to distribute to shareholders as dividends in respect of each fiscal year ending on December 31, to the extent profits are available for distribution, an amount equal to at least 25% of our adjusted profits (the “Mandatory Dividend”) in any particular year, which amount shall include any interest paid on capital during that year. See “Additional Payments on Shareholders’ Equity” below. In addition to the Mandatory Dividend, our Board of Directors may recommend that shareholders receive an additional payment of dividends from other funds legally available. Any payment of interim dividends may be netted against the amount of the Mandatory Dividend for that fiscal year. Under Brazilian Corporate Law, if the Board of Directors determines prior to the Annual Shareholders’ Meeting that payment of the Mandatory Dividend for the preceding fiscal year would be inadvisable in view of our financial condition, the Mandatory Dividend does not need to be paid. That type of determination must be reviewed by the Fiscal Committee, if one exists, and reported, together with the appropriate explanations, to the shareholders and to the *Comissão de Valores Mobiliários*, or CVM. Mandatory dividends not distributed as described above shall be registered as a special reserve and, if not absorbed by losses in subsequent fiscal years, shall be paid as a dividend as soon as our financial condition allows for it.

### ***Payment of Dividends***

We are required to hold Annual Shareholders' Meetings within the first four months after the end of our fiscal year at which an annual dividend may be declared. Additionally, our Board of Directors may declare interim dividends. Under Brazilian Corporate Law, dividends are generally required to be paid to the holder of record on a dividend declaration date within 60 days following the date the dividend was declared, unless a shareholders' resolution sets forth another date of payment, which, in either case, must occur prior to the end of the fiscal year in which the dividend was declared. A shareholder has a three-year period from the dividend payment date to claim dividends (or interest on shareholders' equity as described under "Additional Payments on Shareholders' Equity" below) in respect of its shares, after which we will no longer be liable for the dividend payments.

Our payments of cash distributions on common shares underlying the ADSs will be made in Brazilian currency to our ADR custodian on behalf of our ADR depository. Our ADR custodian will then convert the proceeds into U.S. dollars and will cause the U.S. dollars to be delivered to our ADR depository for distribution to holders of ADSs.

### ***Additional Payments on Shareholders' Equity***

Brazilian companies have been permitted to pay interest on shareholders' equity to holders of equity securities and to treat those payments as a deductible expense for Brazilian income tax purposes. The amount of interest payable on capital is calculated based on the TJLP – Long Term Interest Rate, as determined by the Central Bank, and applied to each shareholder's portion of net equity.

The TJLP is determined by the Central Bank on a quarterly basis. The TJLP is based on the annual profitability average of Brazilian public internal and external debt. The TJLP rate for 2016 was 7.5%.

Interest on shareholders' equity is deductible up to the greater of the following amounts: (i) 50% of the net income (before taking into account the amounts attributable to shareholders as interest on shareholders' equity and the provision of corporate income tax but after the deduction of the provision of the social contribution on net profits) related to the period in respect of which the payment is made; or (ii) 50% of the sum of retained profits and profits reserves as of the date of the beginning of the fiscal year in respect of which the payment is made

## **8B. Significant Changes**

None

## **Item 9. The Offer and Listing**

### **9A. Offer and Listing Details**

Our capital stock is comprised of common shares without par value (*ações ordinárias*). On January 22, 2008, our shareholders approved a one-for-three split of our common shares. As a result of this stock split, each common share of our capital stock as of January 22, 2008 became represented by three common shares after the split. The same ratio of one common share for each ADS was maintained.

On March 25, 2010, our shareholders approved a two-for-one split of our common shares. As a result of this stock split, each common share of our capital stock as of March 25, 2010 became represented by two common shares after

the split. The same ratio of one common share for each ADS was maintained. See “Item 10.B. Memorandum and Articles of Association.”

123

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The following table sets forth information concerning the high and low closing sale prices and the average daily trading volume of our common shares on the B3 (per common share) and the ADSs on the NYSE for the periods indicated:

|                       | Common Shares                |      |                          | American Depositary Shares |      |                          |
|-----------------------|------------------------------|------|--------------------------|----------------------------|------|--------------------------|
|                       | US\$per Share <sup>(1)</sup> |      | Volume<br>(In thousands) | US\$per ADS                |      | Volume<br>(In thousands) |
|                       | High                         | Low  |                          | High                       | Low  |                          |
| <b>2011</b>           |                              |      |                          |                            |      |                          |
| <b>Year end</b>       | 12.99                        | 5.52 | 3,460                    | 13.37                      | 5.62 | 4,828                    |
| <b>2012</b>           |                              |      |                          |                            |      |                          |
| <b>Year End</b>       | 8.28                         | 3.65 | 4,880                    | 8.36                       | 3.67 | 6,131                    |
| <b>2013</b>           |                              |      |                          |                            |      |                          |
| <b>Year End</b>       | 5.51                         | 2.05 | 7,118                    | 5.64                       | 2.07 | 6,225                    |
| <b>2014</b>           |                              |      |                          |                            |      |                          |
| <b>First quarter</b>  | 5.46                         | 3.37 | 6,481                    | 5.59                       | 3.39 | 6,057                    |
| <b>Second quarter</b> | 4.11                         | 3.54 | 5,764                    | 4.17                       | 3.59 | 3,925                    |
| <b>Third quarter</b>  | 4.88                         | 3.28 | 5,715                    | 4.88                       | 3.31 | 5,515                    |
| <b>Fourth quarter</b> | 3.47                         | 1.58 | 6,146                    | 3.49                       | 1.55 | 5,299                    |
| <b>Year End</b>       | 5.46                         | 1.58 | 6,023                    | 5.59                       | 1.55 | 5,185                    |
| <b>2015</b>           |                              |      |                          |                            |      |                          |
| <b>First quarter</b>  | 2.05                         | 1.49 | 6,003                    | 2.02                       | 1.45 | 2,941                    |
| <b>Second quarter</b> | 2.96                         | 1.66 | 5,139                    | 2.89                       | 1.65 | 3,003                    |
| <b>Third quarter</b>  | 1.63                         | 0.78 | 6,847                    | 1.61                       | 0.77 | 3,771                    |
| <b>Fourth quarter</b> | 1.63                         | 0.92 | 7,273                    | 1.58                       | 0.94 | 1,521                    |
| <b>Year End</b>       | 2.96                         | 0.78 | 6,318                    | 2.89                       | 0.77 | 2,372                    |
| <b>2016</b>           |                              |      |                          |                            |      |                          |
| <b>First quarter</b>  | 2.27                         | 0.78 | 7,251                    | 2.27                       | 0.73 | 1,774                    |
| <b>Second quarter</b> | 3.85                         | 1.76 | 9,602                    | 3.78                       | 1.79 | 2,662                    |
| <b>Third quarter</b>  | 3.51                         | 2.44 | 7,943                    | 3.49                       | 2.40 | 2,039                    |
| <b>Fourth quarter</b> | 3.93                         | 2.90 | 6,461                    | 3.91                       | 2.76 | 2,769                    |
| <b>Year End</b>       | 3.93                         | 0.78 | 7,833                    | 3.91                       | 0.73 | 2,311                    |
| <b>2017</b>           |                              |      |                          |                            |      |                          |
| <b>First quarter</b>  | 4.13                         | 2.91 | 4,611                    | 4.11                       | 2.92 | 2,285                    |
| <b>Second quarter</b> | 2.98                         | 1.80 | 7,185                    | 2.99                       | 1.77 | 2,333                    |
| <b>Third quarter</b>  | 3.59                         | 2.13 | 8,311                    | 3.54                       | 2.09 | 2,684                    |
| <b>Month ended:</b>   |                              |      |                          |                            |      |                          |
| <b>November, 30</b>   | 2.57                         | 2.24 | 11,079                   | 2.53                       | 2.22 | 3,267                    |

(1) U.S. dollar amounts have been translated from *reais* at the exchange rates in effect on the respective dates of the quotations for the common shares set forth above. These U.S. dollar amounts may reflect exchange rate fluctuations and may not correspond to changes in nominal *reais* prices over time.

As of November 30, 2017, the closing sale price (i) per common share on the B3 was of R\$7.36 and (ii) per ADS on the NYSE was of US\$2.22. The ADSs are issued under a deposit agreement and JP Morgan Bank serves as depositary under that agreement.

As of December 31, 2016, approximately 323,547 million, or approximately 23.3%, of our outstanding common shares were held through ADSs. Substantially all of these ADSs were held of record by The Depository Trust Company. In addition, our records indicate that on that date there were approximately 109 record holders (other than our ADR depositary) with addresses in the U.S., holding an aggregate of approximately 44 million common shares, representing 13.7% of our outstanding common shares.

## **9B. Plan of Distribution**

Not applicable.

## **9C. Regulation of Securities Markets**

The principal trading market for our common shares is the B3. Our ADSs trade on the NYSE under the symbol “SID.”

### **Trading on the B3 and NYSE**

CSN shares traded in the market are comprised of ordinary shares without nominal value. Ordinary shares are traded on the Brazilian Stock Exchange, the B3, under the code CSNA3. Our ADSs, each one representing an ordinary share, are traded on the New York Stock Exchange, NYSE, under the code SID.

In 2000, the B3 was reorganized through the execution of a memoranda of understanding by the Brazilian stock exchanges. Under the memoranda, all securities in Brazil are now traded only on the B3. When shareholders trade in common and preferred shares on the B3, the trade is settled in three business days after the trade date without adjustment of the purchase price for inflation. The seller is ordinarily required to deliver the shares to the exchange on the third business day following the trade date. Delivery of and payment for shares are made through the facilities of the B3’s clearinghouse.

The B3 is significantly less liquid than the NYSE or other major exchanges in the world. As of December 2016, the aggregate market capitalization of the B3 was equivalent to R\$2.36 trillion (or US\$755 billion). In contrast, as of December 2015, the aggregate market capitalization of the NYSE was US\$490 billion. The average daily trading volume of the B3 for 2016 was of approximately R\$7.4 billion (or US\$2.15 billion). Although any of the outstanding shares of a listed company may trade on the B3, in most cases fewer than half of the listed shares are actually available for trading by the public, since the remaining shares are generally being held by small groups of controlling persons, by government entities or by one principal shareholder. See “Item 3. Risk Factors—Risks Relating to the ADSs and Our Common Shares— 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”

As of December 31, 2016, we accounted for approximately 0.6% of the market capitalization of all listed companies on the B3.

The following table reflects the fluctuations in the Ibovespa index during the periods indicated:

### Ibovespa Index

|                                 | High   | Low    | Close  |
|---------------------------------|--------|--------|--------|
| <b>2010</b>                     | 72,995 | 58,192 | 69,304 |
| <b>2011</b>                     | 71,632 | 48,668 | 56,754 |
| <b>2012</b>                     | 68,394 | 52,481 | 60,952 |
| <b>2013</b>                     | 63,472 | 44,816 | 51,507 |
| <b>2014</b>                     | 62,304 | 44,904 | 50,007 |
| <b>2015</b>                     | 58,574 | 42,749 | 44,014 |
| <b>2016</b>                     | 64,925 | 37,497 | 60,227 |
| <b>2017 (ended November 30)</b> | 76,990 | 59,589 | 71,971 |

The IBOVESPA index closed at 71,971 on November 30, 2017. Trading on the B3 by nonresidents of Brazil is subject to certain limitations under Brazilian foreign investment legislation. See “Item 10D. Exchange Controls.”

### Regulation of the Brazilian Securities Markets

The Brazilian securities markets are regulated by CVM, which has authority over stock exchanges and the securities markets in general, and by the Central Bank, which has, among other powers, licensing authority over brokerage firms and regulates foreign investment and foreign exchange transactions. The Brazilian securities market is governed by Law No. 6,385, dated December 7, 1976, as amended, or the Brazilian Securities Law, Brazilian Corporate Law and regulations issued by CVM.

Under Brazilian Corporate Law, a company is either public, a *companhia aberta*, such as CSN, or private, a *companhia fechada*. All public companies are registered with CVM and are subject to reporting and regulatory requirements.

Trading in securities on the B3 may be suspended at the request of a company in anticipation of a material announcement. The company should also suspend its trading on international stock exchanges where its securities are traded. Trading may also be suspended on the initiative of the B3 or CVM, among other reasons, based on or due to a belief that a company has provided inadequate information regarding a material event or has provided inadequate responses to the inquiries by CVM or the B3.

The Brazilian Securities Law and the regulations issued by CVM provide for, among other things, disclosure requirements, restrictions on insider trading and price manipulation, as well as protection of minority shareholders. However, the Brazilian securities markets are not as highly regulated and supervised as the United States securities markets or markets in certain other jurisdictions.

### Disclosure Requirements

According to Law No 6,385, dated December 7, 1976, a publicly held company must submit to CVM and the B3 certain periodic information, including annual and quarterly reports prepared by management and independent



auditors. This legislation also requires companies to file with CVM shareholder agreements, notices of shareholders' meetings and copies of the related minutes.

Pursuant to CVM Resolution No. 358, of January 3, 2002, as recently modified by CVM Instruction No. 565, of June 15, 2015, CVM revised and consolidated the requirements regarding the disclosure and use of information related to material facts and acts of publicly held companies, including the disclosure of information in the trading and acquisition of securities issued by publicly held companies.

Such requirements include provisions that:

- Establish the concept of a material fact that gives rise to reporting requirements. Material facts include decisions made by the controlling shareholders, resolutions of the shareholders at a shareholders' meeting and of management of the company, or any other facts related to a company's business (whether occurring within the company or otherwise somehow related thereto) that may influence the price of its publicly traded securities, or the decision of investors to trade such securities or to exercise any of such securities' underlying rights;
- Specify examples of facts that are considered to be material, which include, among others, the execution of agreements providing for the transfer of control of the company, the entry or withdrawal of shareholders that maintain any managing, financial, technological or administrative function with or contribution to the company, and any corporate restructuring undertaken among related companies;
- Oblige the investor relations officer, controlling shareholders, other officers, directors, members of the audit committee and other advisory boards to disclose material facts;
- Require simultaneous disclosure of material facts to all markets in which the corporation's securities are admitted for trading;
- Require the acquirer of a controlling stake in a corporation to disclose material facts, including its intentions as to whether or not to de-list the corporation's shares within one year from the acquisition of such controlling stake;
- Establish rules regarding disclosure requirements in the acquisition and disposal of a material ownership interest; and
- Forbid trading on the basis of material non-public information.

Pursuant to CVM Rule No. 480, dated December 7, 2009, as amended ("CVM Rule No. 480"), CVM expanded the quantity and improved the quality of information reported by issuers in Brazil. This Rule represents a significant step forward in providing the market with greater transparency over securities issuers and provides for issuers to file annually a comprehensive and opinative reference form (*Formulário de Referência*). The reference form (*Formulário de Referência*) is in line with the Shelf Registration System recommended by the International Organization Securities Commission (IOSCO) and adopted in other countries (England and the United States, among others), by means of which the information regarding an specific issuer is consolidated into one document and is subject to periodic update (the "Shelf Document"). This mechanism offers the investor the possibility to analyze one single document for relevant information about the issuer.

CVM has also enacted Rule No. 481, dated December 17, 2009, as amended ("CVM Rule No. 481"), to regulate two key issues involving general meetings of shareholders in publicly held companies: (i) the extent of information and documents to be provided in support of call notices (subject to prior disclosure to shareholders); and (ii) proxy solicitation for exercise of voting rights.

CVM Rule No. 481 is intended to (i) improve the quality of information disclosed by publicly held companies to shareholders and to the market in general, favoring the use of Internet as a vehicle to that end; (ii) make the exercise of voting rights less costly and foster the participation of shareholders in general meetings, especially for companies with widely dispersed capital; and, consequently (iii) facilitate the oversight of corporate businesses.

## **9D. Selling Shareholders**

Not applicable.

**9E. Dilution**

Not applicable.

**9F. Expenses of the Issue**

Not applicable.

**Item 10. Additional Information**

**10A. Share Capital**

Not applicable.

127

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## **10B. Memorandum and Articles of Association**

### **Registration and Corporate Purpose**

We are registered with the Department of Trade Registration under number 15,910. Our corporate purpose, as set forth in Article 2 of our bylaws, is to manufacture, transform, market, import and export steel products and steel derived by-products, as well as to explore other activities that are directly or indirectly related to our corporate purpose, including: mining, cement and carbochemical business activities, the manufacture and assembly of metallic structures, construction, transportation, navigation and port activities; the generation, management and commercialization of energy in different forms and ways; and the participation in the capital of other national or international company implemented under any corporate form.

### **Directors' Powers**

Pursuant to our bylaws, a director may not vote on a proposal, arrangement or contract in which the director's interests conflict with our interests. In addition, our shareholders must approve the compensation of our management and, in case a global amount is fixed, our Board of Directors is responsible for allocating individual amounts of management compensation. There is no mandatory retirement age for our directors. A detailed description of the general duties and powers of our Board of Directors may be found in "Item 6A. Directors and Senior Management."

### **Description of Capital Stock**

Set forth below is certain information concerning our capital stock and a brief summary of certain significant provisions of our bylaws and Brazilian Corporate Law applicable to our capital stock. This description does not purport to be complete and is qualified by reference to our bylaws and to Brazilian law. For further information, see our bylaws.

#### ***Capital Stock***

On December 31, 2016, our capital stock was composed of 1,387,524,047 common shares. Our bylaws authorize the Board of Directors to increase the capital stock up to 2,400,000,000 common shares without an amendment to our bylaws. There are currently no classes or series of preferred shares issued or outstanding. We may purchase our own shares for purposes of cancellation or to hold them in treasury subject to certain limits and conditions established by the CVM and Brazilian Corporate Law. See "Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers."

#### ***Liability for Further Capital Calls***

Pursuant to Brazilian Corporate Law, a shareholder's liability is generally limited to the issue price of the subscribed or purchased shares. There is no obligation of a shareholder to participate in additional capital calls.

#### ***Voting Rights***

Each common share entitles the holder to one vote at our shareholders' meetings. According to CVM regulations, shareholders that represent at least 5% of our common shares may request cumulative voting in an election of our Board of Directors. Pursuant to Brazilian Corporate Law, shareholders holding at least 15% of our common shares have the right to appoint a member of our Board of Directors.

#### ***Shareholders' Meetings***

Pursuant to Brazilian Corporate Law, the shareholders present at an annual or extraordinary shareholders' meeting, convened and held in accordance with Brazilian Corporate Law and our bylaws are empowered to decide all matters relating to our corporate purpose and to pass any resolutions they deem necessary for our protection and well-being.

In order to participate in a shareholders' meeting, a shareholder must be a record owner of the share on the day the meeting is held, and may be represented by a proxy.

128

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Shareholders' meetings are called, convened and presided over by the Chairman of our Board of Directors or, in his absence, by whom he appoints. Brazilian Corporate Law requires that our shareholders' meeting be convened by publication of a notice in the *Diário Oficial do Estado de São Paulo*, the official government publication of the State of São Paulo, and in a newspaper of general circulation in Brazil and in the city in which our principal place of business is located, currently the *Jornal Folha de São Paulo – Edição Regional*, at least 15 days prior to the scheduled meeting date and no fewer than three times. Both notices must contain the agenda for the meeting and, in the case of an amendment to our bylaws, an indication of the subject matter.

In order for a shareholders' meeting to be held, shareholders representing a quorum of at least one-fourth of the voting capital must be present, except for meetings convened to amend our bylaws, where shareholders representing at least two-thirds of the voting capital must be present. A shareholder may be represented at a shareholders' meeting by means of a proxy, appointed not more than one year before the meeting, who must be either a shareholder, a company officer or a lawyer. For public companies, such as we are, the proxy may also be a financial institution. If no quorum is present, notice must be given in the manner described above, no fewer than eight days prior to the scheduled meeting date. On second notice, the meeting may be convened without a specific quorum requirement, subject to the minimum quorum and voting requirements for certain matters, as described below. A holder of shares with no voting rights may attend a shareholders' meeting and take part in the discussion of matters submitted for consideration.

Except as otherwise provided by law, resolutions passed at a shareholders' meeting require a simple majority vote, abstentions not considered. Pursuant to Brazilian Corporate Law, the approval of shareholders representing at least one-half of the issued and outstanding voting shares is required for the following actions: (i) to create a new class of preferred shares or disproportionately increase an existing class of preferred shares relative to the other classes of preferred shares, to change a priority, preference, right, privilege or condition of redemption or amortization of any class of preferred shares or to create any class of non-voting preferred shares that has a priority, preference, right, condition or redemption or amortization superior to an existing class of shares (in these cases, a majority of the issued and outstanding shares of the affected class is also required); (ii) to reduce the Mandatory Dividend; (iii) to change our corporate purpose; (iv) to merge into or consolidate with another company or to spin-off our assets; (v) to dissolve or liquidate our Company; (vi) to cancel any liquidation procedure; (vii) to authorize the issuance of founders' shares; and (viii) to participate in a centralized group of companies as defined under Brazilian Corporate Law.

Pursuant to Brazilian Corporate Law, shareholders voting at a shareholders' meeting have the power to: (i) amend our bylaws; (ii) elect or dismiss members of our Board of Directors (and members of the Fiscal Committee) at any time; (iii) receive and approve the annual management accounts, including the allocation of net profits and payment of the mandatory dividends and allocation to the various reserve accounts; (iv) authorize the issuance of debentures in general; (v) suspend the rights of a shareholder who has violated Brazilian Corporate Law or our bylaws; (vi) accept or reject the valuation of assets contributed by a shareholder in consideration of the subscription of shares in our capital stock; (vii) authorize the issuance of founders' shares; (viii) pass resolutions authorizing reorganization of our legal form, a merger, consolidation or split of the company, dissolution and liquidation of the company, election and dismissal of our liquidators and to examine their accounts; and (ix) authorize management to declare the company insolvent and to request a *recuperação judicial* or *recuperação extrajudicial* (a procedure involving protection from creditors similar in nature to a reorganization under the U.S. Bankruptcy Code), among others.

### ***Redemption Rights***

Our common shares are not redeemable, except that a dissenting and adversely affected shareholder is entitled, under Brazilian Corporate Law, to obtain redemption upon a decision made at a shareholders' meeting by shareholders representing at least one-half of the issued and outstanding voting shares to: (i) create a new class of preferred shares or to disproportionately increase an existing class of preferred shares relative to the other classes of preferred shares

(unless these actions are provided for or authorized by our bylaws); (ii) modify a preference, privilege or condition of redemption or amortization conferred on one or more classes of preferred shares, or to create a new class with greater privileges than an existing class of preferred shares; (iii) reduce the mandatory distribution of dividends; (iv) change our corporate purpose; (v) merge us with another company or consolidate us; (vi) transfer all of our shares to another company in order to make us a wholly-owned subsidiary of that company (*incorporação*); (vii) approve the acquisition of control of another company at a price that exceeds certain limits set forth under Brazilian Corporate Law; (viii) approve our participation in a centralized group of companies as defined under Brazilian Corporate Law; (ix) conduct a spin-off that results in (a) a change of corporate purpose, (b) a reduction of the Mandatory Dividend or (c) any participation in a group of companies as defined under Brazilian Corporate Law; or (x) in the event that the entity resulting from (a) a merger or consolidation, (b) an *incorporação* as described above or (c) a spin-off of a listed company fails to become a listed company within 120 days of the shareholders' meeting at which the decision was taken. The right of redemption lapses 30 days after publication of the minutes of the relevant shareholders' meeting. We would be entitled to reconsider any action giving rise to redemption rights within 10 days following the expiration of those rights, if the redemption of shares of dissenting shareholders would jeopardize our financial stability. Law No. 9,457, dated May 5, 1997, which amended Brazilian Corporate Law, contains provisions which, among others, restrict redemption rights in certain cases and allow companies to redeem their shares at their market value, subject to certain requirements. According to Brazilian Corporate Law, the reimbursement value of the common shares must equal the book value, which is determined by dividing our net assets by the total number of shares issued by us, excluding treasury shares (if any).

### ***Preemptive Rights***

Except as provided for in Brazilian Corporate Law (such as in the case of mergers and public offerings), our bylaws allow each of our shareholders a general preemptive right to subscribe to shares in any capital increase, in proportion to his or her ownership interest. A minimum period of 30 days following the publication of notice of a capital increase is allowed for the exercise of the right and the right is transferable. In the event of a capital increase that would maintain or increase the proportion of capital represented by common shares, holders of ADSs will have preemptive rights to subscribe only to newly issued common shares. In the event of a capital increase that would reduce the proportion of capital represented by common shares, holders of ADSs will have preemptive rights to subscribe for common shares, in proportion to their ownership interest, only to the extent necessary to prevent dilution of their interest in us.

### ***Form and Transfer***

As our common shares are in registered form, the transfer of shares is governed by the rules of Article 31, paragraph 3, of Brazilian Corporate Law, which provides that a transfer of shares is effected by a transfer recorded in a company's share transfer records upon presentation of valid share transfer instructions to the company by a transferor or its representative. When common shares are acquired or sold on a Brazilian stock exchange, the transfer is effected on our records by a representative of a brokerage firm or the stock exchange's clearing system. Transfers of shares by a non-Brazilian shareholder are made in the same way and are executed by such shareholders' local agent.

The B3 operates a central clearing system. A holder of our common shares may choose, at its discretion, to participate in this system and, in that case, all shares elected to be put into this system will be deposited in the custody of the B3 (through a Brazilian institution duly authorized to operate by the Central Bank and having a clearing account with the B3). The fact that those common shares are held in the custody of the B3 will be reflected in our register of shareholders. Each participating shareholder will, in turn, be registered in our register of beneficial shareholders maintained by the B3 and will be treated in the same way as registered shareholders.

### ***Limitations on Ownership and Voting Rights by non-Brazilians Shareholders***

There are no restrictions on ownership or voting of our common shares by individuals or legal entities domiciled outside Brazil. However, the right to convert dividend payments and proceeds from the sale of common shares into foreign currency and to remit those amounts outside Brazil is subject to exchange control restrictions and foreign investment legislation which generally require, among other things, obtaining a Certificate of Registration under the Brazilian National Monetary Council's Resolution No. 2,689 or its direct foreign investment regulations. See "Item 10D. Exchange Controls."

### ***Share Ownership Disclosure***

There are no provisions in our bylaws governing the ownership threshold above which shareholder ownership must be disclosed. CVM regulations require the disclosure of (i) the acquisition of 5% of any class of capital stock of a listed company and any subsequent direct or indirect acquisition or disposition of at least 5% of any such class of capital stock, (ii) acquisition of control of a listed company and (iii) the ownership of shares of capital stock of a listed company by members of such company's Board of Executive Officers, Board of Directors, Audit Committee, Fiscal Committee (if any) and any other consulting or technical body (if any) and certain relatives of those persons.



### 10C. Material Contracts

None.

### 10D. Exchange Controls

There are no restrictions on ownership or voting of our common shares by individuals or legal entities domiciled outside Brazil. However, the right to convert dividend payments and proceeds from the sale of common shares into foreign currency and to remit those amounts outside Brazil is subject to exchange control restrictions and foreign investment legislation which generally require, among other things, obtaining a Certificate of Registration under the Brazilian National Monetary Council's Resolution No. 2,689, dated March 31, 2000, or its direct foreign investment regulations.

Resolution No. 2,689, dated March 31, 2000, introduced new rules to facilitate foreign investment in Brazil. The principal changes for foreign investors entering the Brazilian market include:

- the removal of restrictions on investments by portfolio composition (e.g., equities, fixed income and derivatives); and
- permission for foreign individuals and corporations to invest in the Brazilian market, in addition to foreign institutional investors.

Prior to Resolution No. 2,689, foreign investors had to leave and reenter the country in order to switch their investments from equity to fixed income. Now foreign investors can freely switch their investments without leaving the local market. Foreign investors registered with the CVM and acting through authorized custody accounts and a legal representative may buy and sell any local financial product traded on the local exchanges and registered on the local clearing systems, including shares on the B3, without obtaining separate Certificates of Registration for each transaction. Pursuant to Resolution No. 2,689, as amended, investors are also generally entitled to favorable tax treatment. See "Item 10E. Taxation—Brazilian Tax Considerations."

A Certificate of Registration has been issued in the name of JP Morgan Chase Bank N.A., as our ADR depository, and is maintained by the *Itaú Corretora de Valores S.A.*, our ADR custodian, on behalf of our ADR depository. Pursuant to the Certificate, our ADR custodian and our ADR depository are able to convert dividends and other distributions with respect to the common shares represented by ADSs into foreign currency and remit the proceeds outside Brazil. In the event that a holder of ADSs surrenders its ADSs for common shares, that holder will be entitled to continue to rely on our ADR depository's Certificate of Registration for only five business days after the surrender, following which the holder must obtain its own Certificate of Registration. Thereafter, unless the common shares are held pursuant to Resolution No. 2,689 or direct foreign investment regulations, the holder may not be able to convert into foreign currency and remit outside Brazil the proceeds from the disposition of, or distributions with respect to, those common shares, and the holder generally will be subject to less favorable Brazilian tax treatment than a holder of ADSs. See "Item 10E. Taxation—Brazilian Tax Considerations."

A non-Brazilian holder of common shares may experience delays in obtaining a Certificate of Registration, which may delay remittances abroad. This kind of delay may adversely affect the amount, in U.S. dollars, received by the non-Brazilian holder.

Under current Brazilian legislation, the Brazilian government may impose temporary restrictions on remittances of foreign capital abroad in the event of a serious imbalance or an anticipated serious imbalance of Brazil's balance of

payments. For approximately nine months in 1989 and early 1990, the Brazilian government froze all dividend and capital repatriations held by the Central Bank that were owed to foreign equity investors in order to conserve Brazil's foreign currency reserves. These amounts were subsequently released in accordance with Brazilian government directives. See "Item 3D. Risk Factors—Risks Relating to our Common Shares and ADSs—If you surrender your ADSs and withdraw common shares, you risk losing the ability to remit foreign currency abroad and certain Brazilian tax advantages."

131

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For a description of the foreign exchange markets in Brazil, see “Item 3A. Selected Financial Data— Exchange Rates.”

## **10E. Taxation**

The following is a summary of certain U.S. federal income and Brazilian tax consequences of the acquisition, ownership and disposition of our common shares or ADSs by an investor that holds such common shares or ADSs. This summary does not purport to address all material tax consequences of the acquisition, ownership and disposition of our common shares or ADSs, does not take into account the specific circumstances of any particular investor and does not address certain investors that may be subject to special tax rules.

This summary is based on the tax laws of the United States (including the Internal Revenue Code of 1986, as amended, or the Code, its legislative history, existing and proposed Treasury regulations thereunder, published rulings and court decisions) and Brazil, as in effect on the date hereof, which are subject to change (or changes in interpretation), possibly with retroactive effect. In addition, this summary is based in part upon the representations of our ADSs depository and the assumption that each obligation in our deposit agreement and any related agreement will be performed in accordance with its terms.

Although there is, at present, no income tax treaty between Brazil and the United States, the tax authorities of the two countries have had discussions that may result in such a treaty. Both countries have been accepting the offset of income taxes paid in one country against the income tax due in the other based on reciprocity. No assurance can be given, however, as to whether or when an income tax treaty will enter into force or how it will affect the U.S. Holders, as defined below, of our common shares or ADSs.

This discussion does not address any aspects of U.S. taxation (such as estate tax, gift tax and Medicare tax on net investment income) other than federal income taxation or any aspects of Brazilian taxation other than income, gift, inheritance and capital taxation. Prospective investors are urged to consult their own tax advisors regarding the Brazilian and U.S. federal, state and local tax consequences of the acquisition, ownership and disposition of our common shares and ADSs.

### **Brazilian Tax Considerations**

The following discussion summarizes the principal Brazilian tax consequences of the acquisition, ownership and disposition of common shares or ADSs by a holder that is not domiciled in Brazil for purposes of Brazilian taxation (“Non-Resident Holder”). It is based on Brazilian law as currently in effect. Any change in such law may change the consequences described below, possibly with retroactive effect. This discussion does not specifically address all of the Brazilian tax considerations applicable to any particular Non-Resident Holder. Each Non-Resident Holder of common shares or ADSs should consult their own tax advisor concerning the Brazilian tax consequences of an investment in our common shares or ADSs.

A Non-Resident Holder of ADSs may withdraw them in exchange for common shares in Brazil. Pursuant to Brazilian law, the Non-Resident Holder may invest in common shares under Resolution 4,373, of September 2014, of the National Monetary Council (a “4,373 Holder,” formerly referred to as a “2,689 Holder”).

### ***Taxation of Dividends and Interest on Shareholders Equity***

Dividends, including stock dividends and other dividends, paid by us (i) to our ADSs depository in respect of the common shares underlying the ADSs or (ii) to a Non-Resident Holder in respect of common shares, are currently not subject to Brazilian withholding income tax, as far as such amounts are related to profits generated on or after January 1, 1996. Dividends relating to profits generated prior to January 1, 1996 may be subject to Brazilian withholding income tax at varying rates, depending on the year such profits have been generated, but CSN does not have any profits generated prior to January 1, 1996.

132

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It is important to note that as from January 1<sup>st</sup>, 2008, Brazil has adopted new GAAP, following IFRS standards. As from such date, Brazilian income taxes were calculated under a temporary regime called Transitional Tax Regime (RTT, in the Portuguese acronym). The goal of such regime was to neutralize the impacts on the calculation of the corporate income tax in Brazil that could derive from the adoption of the new GAAP. Law 12.973 was then enacted in 2013, with the goal to adapt Brazilian tax legislation, based on the new GAAP, eliminating the RTT. With the introduction of the new rules, the law determined that, for fiscal year 2014, any dividends paid out of accounting profits which, for any reason, would be higher than the “tax profits” calculated according to the RTT, would be subject to withholding income tax in Brazil. Nonetheless, CSN does not have relevant accounting adjustments which could result in a lower “tax profit” as compared to the group’s accounting profit, reason why no withholding income tax shall be levied on any future distribution of dividends paid out of profits generated in 2014. As from fiscal year 2015, since there is no “tax profit” under the RTT, no potential exposure should exist, and the exemption for dividends is normally applicable again.

Since 1996, Brazilian companies have been permitted to pay limited amounts of interest on shareholders' equity to holders of equity securities and to treat those payments as a deductible expense for purposes of its Brazilian income tax and social contribution on net profits tax basis. For tax purposes, this interest is limited to the daily pro rata variation of the Brazilian government's Long-Term Interest Rate or TJLP, as determined by the Central Bank from time to time, multiplied by the net equity value of the Brazilian company, and the amount of the deduction may not exceed the greater of (i) 50% of the net income (before taking into account the amounts attributable to shareholders as interest on shareholders' equity and the provision of corporate income tax but after the deduction of the provision of the social contribution on net profits) related to the period in respect of which the payment is made; or (ii) 50% of the sum of retained profits and profits reserves as of the date of the beginning of the fiscal year in respect of which the payment is made. Payments of interest on shareholders' equity are decided by the shareholders on the basis of the recommendations of our Board of Directors.

Payment of interest on shareholders' equity to a Non-Resident Holder is subject to withholding income tax at the rate of 15%, or 25% if the Non-Resident Holder is domiciled in a tax haven.

For this purpose, a “tax haven” or “low-tax regime” is a country or location (1) that does not impose income tax, (2) where the income tax rate is lower than 20% or (3) where the local legislation imposes restrictions on disclosing the shareholding composition or ownership of the investment (“Tax Haven Jurisdiction”). These payments of interest on shareholders' equity may be included as part of any mandatory dividend.

No assurance can be given that our board of directors will not recommend that future distributions of income should be made by means of interest on shareholders' equity instead of dividends.

### ***Taxation of Gains***

Capital gains realized by Non-Resident Holders on the disposition of common shares sold on the Brazilian stock exchange (which includes the transactions carried out on the organized over-the-counter market):

- are exempt, when realized by a Non-Resident Holder that (i) is a 4,373 Holder and (ii) is not resident or domiciled in a Tax Haven Jurisdiction;
- are subject to income tax at a rate of 15% in case of gains realized by (A) a Non-Resident Holder that (i) is not a 4,373 Holder and (ii) is not resident or domiciled in a Tax Haven Jurisdiction; or (B) a Non-Resident Holder that

(i) is a 4,373 Holder and (ii) is resident or domiciled in a Tax Haven Jurisdiction; and

- are subject to income tax at a rate of 25% in case of gains realized by a Non-Resident Holder that (i) is not a 4,373 Holder and (ii) is resident or domiciled in a Tax Haven Jurisdiction.

As a general rule, capital gains realized as a result of a disposition transaction are the positive difference between the amount realized on the disposition of the common shares and the respective acquisition cost.

According to Law No. 10,833/03, the gains recognized on a disposition of assets located in Brazil, such as our common shares, by a Non-Resident Holder, are subject to withholding income tax in Brazil. This rule is applicable regardless of whether the disposition is conducted in Brazil or abroad and/or if the disposition is or is not made to an individual or entity resident or domiciled in Brazil.

A withholding income tax of 0.005% will apply and can be offset against any income tax due on the capital gain. Such withholding does not apply to a 4,373 Holder that is not resident or domiciled in a Tax Haven Jurisdiction.

Any other gains realized on the disposition of common shares that are not carried out on the Brazilian stock exchange:

- are subject to income tax at rates varying from 15% to 22.5%, depending on the total amount of gains within the same fiscal year (see table below) when realized by any Non-Resident Holder that is not resident or domiciled in a Tax Haven Jurisdiction, whether or not such holder is a 4,373 Holder; and
- are subject to income tax at a rate of 25% when realized by a Non-Resident Holder that is resident or domiciled in a Tax Haven Jurisdiction, whether or not such holder is a 4,373 Holder.

The capital gains rates described above, varying from 15% to 22.5%, shall be determined according to the following table:

| <b>Capital Gains Tax rate</b> | <b>Threshold (total gains on the sale of the same rights within a same fiscal year)</b> |
|-------------------------------|---|
| <b>15%</b>                    | Total gains below BRL 5 million   |
| <b>17.5%</b>                  | Total gains above BRL 5 million, but below BRL 10 million                               |
| <b>20%</b>                    | Total gains above BRL 10 million, but below BRL 30 million                              |
| <b>22.5%</b>                  | Total gains above BRL 30 million  |

In the cases described above, if the gains are related to transactions conducted on the Brazilian non-organized over-the-counter market with intermediation, the withholding income tax of 0.005% will also apply and can be offset against any income tax due on the capital gain.

Any exercise of preemptive rights relating to common shares will not be subject to Brazilian withholding income tax. Gains realized by a Non-Resident Holder on the disposition of preemptive rights will be subject to Brazilian income tax according to the same rules applicable to disposition of common shares.

In the case of a redemption of common shares or a capital reduction, the positive difference between the amount received by the Non-Resident Holder and the acquisition cost of the common shares redeemed in *reais* is treated as capital gain derived from the sale or exchange of shares not carried out on a Brazilian stock exchange market and is therefore subject to income tax at the rate of 15%, or 25%, as the case may be.

#### ***Sale of ADSs by U.S. Holders to Other Non-Residents in Brazil***

As discussed above, pursuant to Law No. 10,833, the sale of assets located in Brazil involving Non-Resident Holders is subject to Brazilian withholding income tax. We believe that the ADSs do not fall within the definition of assets located in Brazil for the purposes of Law No. 10,833, and, thus, should not be subject to the Brazilian withholding tax. However, due to the lack of any administrative or judicial guidance, there is no assurance that such position would prevail.

#### ***Gains on the Exchange of ADSs for Common Shares***

The withdrawal of ADSs in exchange for common shares is not subject to Brazilian income tax, assuming compliance with applicable regulation regarding the registration of the investment with Central Bank.



### ***Gains on the Exchange of Common Shares for ADSs***

The deposit of common shares in exchange for the ADSs may be subject to Brazilian withholding income tax on capital gains if the amount previously registered with the Central Bank as a foreign investment in common shares or, in the case of other market investors under Resolution No. 4,373, the acquisition cost of the common shares, as the case may be, is lower than:

- the average price per common share on the Brazilian stock exchange on which the greatest number of such common shares were sold on the day of deposit; or
- if no common shares were sold on that day, the average price on the Brazilian stock exchange on which the greatest number of common shares were sold during the 15 preceding trading sessions.

The difference between the amount previously registered, or the acquisition cost, as the case may be, and the average price of the common shares, calculated as set forth above, is considered a capital gain subject to income tax at a rate of 15%, or 25% if the Non-Resident Holder is resident or domiciled in a Tax Haven Jurisdiction.

### ***Tax on Financial Transactions***

The Tax on Financial Transactions (*Imposto sobre Operações de Crédito, Câmbio e Seguro ou relativas a Títulos ou Valores Mobiliários*), or “IOF,” is imposed on foreign exchange, securities, credit and insurance transactions.

### ***IOF on Foreign Exchange Transactions***

Tax on foreign exchange transactions, or “IOF/Exchange,” may be levied on foreign exchange transactions (conversion of foreign currency in *reais* and conversion of *reais* into foreign currency), affecting either or both the inflow or outflow of investments. Currently, the general IOF/Exchange rate applicable to foreign currency exchange transactions is 0.38%.

The Brazilian Government may increase the rate of the IOF/Exchange to a maximum rate of 25% of the amount of the foreign exchange transactions at any time, but such an increase will only apply in respect to future foreign exchange transactions.

Currently, for most foreign exchange transactions related to this type of investment, the IOF/Exchange rate is zero.

### ***IOF on Bonds and Securities Transactions***

IOF may also be levied on transactions involving bonds and securities (“IOF/Securities”), including those carried out on a Brazilian stock, futures or commodities exchanges. The rate of the IOF/Securities applicable to most transactions involving common shares is currently zero percent. The Brazilian Government may increase the rate of the

IOF/Exchange up to 1.5% per day at any time, but such an increase will only apply in respect of future transactions.

***Other Brazilian Taxes***

There are no Brazilian inheritance, gift or succession taxes applicable to the ownership, transfer or disposition of common shares or ADSs by a non-Brazilian holder, except for gift and inheritance taxes which are levied by some states of Brazil on gifts made or inheritances bestowed by individuals or entities not resident or domiciled in Brazil to individuals or entities resident or domiciled within that state in Brazil. There are no Brazilian stamp, issue, registration or similar taxes or duties payable by holders of common shares or ADSs.

**U.S. Federal Income Tax Considerations**

The summary discussion below is applicable to you only if you are a “U.S. Holder” or a “Non-U.S. Holder” (both as defined below) . This summary is based upon the Internal Revenue Code of 1986, as amended (the “Code”), Treasury regulations, administrative pronouncements of the U.S. Internal Revenue Service (the “IRS”) and judicial decisions, all as in effect on the date hereof, and all of which are subject to change (possibly with retroactive effect) and to differing interpretations. This summary does not describe any implications under state, local or non-U.S. tax law, or any aspect of U.S. federal tax law (such as the estate tax, gift tax, the alternative minimum tax or the Medicare tax on net investment income) other than U.S. federal income taxation.

This summary does not purport to address all the material U.S. federal income tax consequences that may be relevant to the holders of the common shares or ADSs, and does not take into account the specific circumstances of any particular investors, some of which (such as tax-exempt entities, banks or other financial institutions, insurance companies, dealers in securities or currencies, traders in securities that elect to use a mark-to-market method of accounting for their securities holdings, regulated investment companies, real estate investment trusts, investors liable for the alternative minimum tax, partnerships and other pass-through entities, U.S. expatriates, investors that own or are treated as owning 10% or more of our voting stock, investors that hold the preferred shares or ADSs as part of a straddle, hedge, conversion or constructive sale transaction or other integrated transaction and persons whose functional currency is not the U.S. dollar) may be subject to special tax rules.

For purposes of this discussion, a U.S. Holder is any beneficial owner of common shares or ADSs that is (i) an individual who is a citizen or resident of the United States, (ii) a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) organized under the laws of the United States, any state thereof or the District of Columbia, (iii) an estate the income of which is subject to U.S. federal income tax without regard to its source, or (iv) a trust if a U.S. court is able to exercise primary supervision over administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust or if the trust validly elects under applicable Treasury regulations to be taxed as a U.S. person. A “Non-U.S. Holder” is any beneficial owner of common shares or ADSs that is an individual, corporation, estate or trust who is neither a U.S. Holder nor a partnership for U.S. federal income tax purposes.

If a partnership holds our common shares or ADSs, the tax treatment of a partner will generally depend upon the status of the partner and upon the activities of the partnership. A prospective investor who is a partner of a partnership holding our shares should consult its own tax advisor.

In general, for U.S. federal income tax purposes, holders of American Depositary Receipts evidencing ADSs will be treated as the owners of the common shares represented by those ADSs, and exchanges of common shares for ADSs, and ADSs for common shares, will not be subject to U.S. federal income tax.

### ***Taxation of Dividends***

#### ***U.S. Holders***

Under the U.S. federal income tax laws, and subject to the passive foreign investment company (“PFIC”) rules discussed below, U.S. Holders will include in gross income, as dividend income, the gross amount of any distribution paid by us (including (i) payments considered “interest” in respect of Shareholders’ equity under Brazilian law and (ii) amounts withheld in respect of Brazilian taxes and (iii) any additional amounts payable in respect of such withholding taxes as described above under “Brazilian Tax Considerations—Taxation of Dividends and Interest on Shareholders’ Equity”) out of our current or accumulated earnings and profits (as determined for U.S. federal income tax purposes) when the distribution is actually or constructively received by the U.S. Holder, in the case of common shares, or by our ADSs depositary, in the case of ADSs. Distributions in excess of current and accumulated earnings and profits, as determined under U.S. federal income tax principles, will be treated as a return of capital to the extent of the U.S. Holder’s adjusted tax basis in the common shares or ADSs and thereafter as capital gain, which will be either long-term or short-term capital gain depending on whether the U.S. holder held the common shares or ADSs for more than one year. We do not intend to maintain calculations of our earnings and profits under U.S. federal income tax

principles and, unless and until such calculations are made, U.S. Holders should assume all distributions are made out of earnings and profits and constitute dividend income.

The dividend income will not be eligible for the dividends-received deduction generally allowed to U.S. corporations in respect of dividends received from other U.S. corporations. Subject to certain exceptions for short-term and hedged positions certain non-corporate U.S. Holders (including individuals) may qualify for a maximum 20% rate of tax in respect of “qualified dividend income” received. Dividend income with respect to the ADSs will be qualified dividend income, provided that, in the year that a non-corporate U.S. Holder receives the dividend, the ADSs are readily tradable on an established securities market in the United States, and we were not in the year prior to the year in which the dividend was paid, and are not in the year in which the dividend is paid, a PFIC. Based on existing IRS guidance, it is not entirely clear whether dividends received with respect to the common shares not held through ADSs will be treated as qualified dividend income, because the common shares are not themselves listed on a U.S. exchange.

The amount of the dividend distribution includible in gross income of a U.S. Holder will be the U.S. dollar value of the *real* payments made, determined at the spot *real*/U.S. dollar rate on the date such dividend distribution is includible in the gross income of the U.S. Holder, regardless of whether the payment is in fact converted into U.S. dollars. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is includible in gross income to the date such payment is converted into U.S. dollars will be treated as ordinary income or loss from sources within the United States and will not be eligible for the special tax rate applicable to qualified dividend income.

Dividends received by most U.S. holders will constitute foreign source “passive income” for foreign tax credit purposes. Subject to limitations under U.S. federal income tax law concerning credits or deductions for foreign income taxes and certain exceptions for short-term and hedged positions, any Brazilian income tax withheld from dividends paid by us would be treated as a foreign income tax eligible for credit against a U.S. Holder’s U.S. federal income tax liability (or at a U.S. Holder’s election, may be deducted in computing taxable income if the U.S. Holder has elected to deduct all foreign income taxes paid or accrued for the relevant taxable year). The rules with respect to foreign tax credits are complex and U.S. Holders are urged to consult their own tax advisors regarding the availability of the foreign tax credit under their particular circumstances.

The U.S. Treasury Department has expressed concern that intermediaries in connection with depositary arrangements may be taking actions that are inconsistent with the claiming of foreign tax credits by U.S. persons who are holders of depositary shares. Accordingly, investors should be aware that the discussion above regarding the availability of foreign tax credits for Brazilian income tax withheld from dividends paid with respect to common shares represented by ADSs could be affected by future action taken by the U.S. Treasury Department.

Distributions of additional common shares to U.S. Holders with respect to their common shares or ADSs that are made as part of a pro rata distribution to all our Shareholders generally will not be subject to U.S. federal income tax.

### ***Non-U.S. Holders***

Dividends paid to a Non-U.S. Holder in respect of common shares or ADSs will not be subject to U.S. federal income tax unless those dividends are effectively connected with the conduct of a trade or business within the United States by the Non-U.S. Holder (or are attributable to a permanent establishment maintained in the United States by the Non-U.S. Holder, if an applicable income tax treaty so requires as a condition for the Non-U.S. Holder to be subject to U.S. taxation on a net income basis in respect of income from common shares or ADSs), in which case the Non-U.S. Holder generally will be subject to U.S. federal income tax in respect of the dividends in the same manner as a U.S. Holder. Any such effectively connected dividends received by a corporate Non-U.S. Holder may also, under certain circumstances, be subject to an additional “branch profits tax” (at a 30% rate or at a reduced rate as may be specified by an applicable income tax treaty).

### ***Taxation of Capital Gains***

### ***U.S. Holders***

Subject to the PFIC rules discussed below, upon a sale, redemption or other taxable disposition of common shares or ADSs, a U.S. Holder will recognize gain or loss for U.S. federal income tax purposes in an amount equal to the difference between the U.S. dollar value of the amount realized (before deduction of any Brazilian tax) and the U.S. Holder's adjusted tax basis (determined in U.S. dollars) in the common shares or ADSs. Generally, a non-corporate U.S. Holder's gain or loss will be capital gain or loss taxed at a maximum rate of 20% where the property is held for more than one year. The deductibility of capital losses is subject to limitations under the Code.

137

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Capital gain or loss, if any realized by a U.S. Holder on the sale, exchange or other taxable disposition of common shares or ADSs generally will be treated as U.S. source gain or loss for U.S. foreign tax credit purposes. Consequently, in the case of a gain from the disposition of a share or ADS that is subject to Brazilian income tax (see “Taxation—Brazilian Tax Considerations—Taxation of Gains”), the U.S. Holder may not be able to benefit from the foreign tax credit for that Brazilian income tax (i.e., because the gain from the disposition would be U.S. source income), unless the U.S. Holder can apply the credit against U.S. federal income tax payable on other income from foreign sources. Alternatively, the U.S. Holder may be able to take a deduction for the Brazilian income tax if it does not elect to claim a foreign income tax credit for any foreign taxes paid or accrued during the taxable year.

### ***Non-U.S. Holders***

A Non-U.S. Holder will not be subject to U.S. federal income tax in respect of gain recognized on a sale, exchange or other taxable disposition of common shares or ADSs unless:

- the gain is effectively connected with a trade or business of the Non-U.S. Holder in the United States (or is attributable to a permanent establishment maintained in the United States by that Non-U.S. Holder, if an applicable income tax treaty so requires as a condition for that Non-U.S. Holder to be subject to U.S. taxation on a net income basis in respect of gain from the sale or other disposition of the common shares or ADSs); or
- in the case of a Non-U.S. Holder who is an individual, that Non-U.S. Holder is present in the United States for 183 or more days in the taxable year of the sale and certain other conditions apply.

Effectively connected gains realized by a corporate Non-U.S. Holder may also, under certain circumstances, be subject to an additional branch profits tax (at a 30% rate or at a reduced rate as may be specified by an applicable income tax treaty).

### ***Passive Foreign Investment Companies***

Based on current estimates of our gross income, gross assets and the nature of our business, we believe that our common shares and ADSs should not be treated as stock of a PFIC for U.S. federal income tax purposes. There can be no assurances in this regard, however, because the application of the relevant rules is complex and involves some uncertainty. The PFIC determination is made annually and is based on the portion of our assets and income that is characterized as passive under the PFIC rules. Moreover, our business plans may change, which may affect the PFIC determination in future years.

In general, we will be a PFIC with respect to a U.S. Holder if, for any taxable year in which the U.S. Holder held our ADSs or common shares, either (i) at least 75% of our gross income for the taxable year is passive income or (ii) at least 50% of the value (determined on the basis of a quarterly average) of our assets is attributable to assets that produce or are held for the production of passive income. For this purpose, passive income generally includes, among other things, dividends, interest, royalties, rents (other than certain rents and royalties derived in the active conduct of a trade or business), annuities and gains from assets that produce passive income. If a non-U.S. corporation owns at least 25% by value of the stock of another corporation, the non-U.S. corporation is treated for purposes of the PFIC tests as owning its proportionate share of the assets of the other corporation, and as receiving directly its proportionate share of the other corporation’s income.

If we are treated as a PFIC, a U.S. Holder that did not make a “mark-to-market election” or “QEF election,” each as described below, would be subject to special rules with respect to (a) any gain realized on the sale or other disposition of common shares or ADSs and (b) any “excess distribution” by CSN to the U.S. Holder (generally, any distributions to the U.S. Holder in respect of the common shares or ADSs during a single taxable year that are greater than 125% of the average annual distributions received by the U.S. Holder with respect to the common shares or ADSs during the three preceding taxable years or, if shorter, the U.S. Holder’s holding period for the common shares or ADSs). Under these rules, (i) the gain or excess distribution would be allocated ratably over the U.S. Holder’s holding period for the common shares or ADSs, (ii) the amount allocated to the taxable year in which the gain or excess distribution was realized would be taxable as ordinary income, (iii) the amount allocated to each prior year, with certain exceptions, would be subject to tax at the highest tax rate in effect for that year and (iv) the interest charge generally applicable to underpayments of tax would be imposed in respect of the tax attributable to each such prior year.



If we are treated as a PFIC and, at any time, we invest in non-U.S. corporations that are classified as PFICs (each, a “Subsidiary PFIC”), U.S. Holders generally will be deemed to own, and also would be subject to the PFIC rules with respect to, their indirect ownership interest in that Subsidiary PFIC. If we are treated as a PFIC, a U.S. Holder could incur liability for the deferred tax and interest charge described above if either (1) we receive a distribution from, or dispose of all or part of our interest in, the Subsidiary PFIC or (2) the U.S. Holder disposes of all or part of its common shares or ADSs.

The special PFIC tax rules described above will not apply to a U.S. Holder if the U.S. Holder makes an election (i) to “mark-to-market” with respect to the common shares or ADSs (a “mark-to-market election”) or (ii) to have us treated as a “qualified electing fund” (a “QEF election”). The QEF election is not available to holders unless we agree to comply with certain reporting requirements and provide the required annual information statements. The QEF and mark-to-market elections only apply to taxable years in which the U.S. Holder’s common shares or ADSs are treated as stock of a PFIC. Our ADR Depositary has agreed to distribute the necessary information to registered holders of ADSs.

A U.S. Holder may make a mark-to-market election, if the common shares or ADSs are “regularly traded” on a “qualified exchange.” Under applicable U.S. Treasury regulations, a “qualified exchange” includes a national securities exchange, such as the New York Stock Exchange, that is registered with the SEC or the national market system established under the Exchange Act. Also, under applicable Treasury Regulations, PFIC securities traded on a qualified exchange are regularly traded on such exchange for any calendar year during which such stock is traded, other than in *de minimis* quantities, on at least 15 days during each calendar quarter. We cannot assure you that the ADSs will be eligible for a mark-to-market election.

A U.S. Holder that makes a mark-to-market election with respect to its ADSs must include for each taxable year in which the U.S. Holder’s common shares or ADSs are treated as shares of a PFIC, as ordinary income, an amount equal to the excess of the fair market value of the common shares or ADSs at the close of the taxable year over the U.S. Holder’s adjusted tax basis in the common shares or ADSs, and is allowed an ordinary loss for the excess, if any, of the adjusted tax basis over the fair market value of the common shares or ADSs at the close of the taxable year, but only to the extent of the amount of previously included mark-to-market inclusions (not offset by prior mark-to-market losses). These amounts of ordinary income, and any gain recognized on the sale, redemption or other taxable disposition of an ADS with respect to which such an election is in place, will not be eligible for the favorable tax rates applicable to qualified dividend income or long-term capital gains. A U.S. Holder’s tax basis in the common shares or ADSs will be adjusted to reflect any income or loss amounts on its annual inclusions. Although a U.S. Holder may be eligible to make a mark-to-market election with respect to its common shares or ADSs, no such election may be made with respect to the stock of any Subsidiary PFIC that such U.S. Holder is treated as owning, because such Subsidiary PFIC stock is not marketable. Thus, the mark-to-market election will not be effective to avoid all of the adverse tax consequences described above with respect to any Subsidiary PFICs. U.S. Holders should consult their own tax advisors regarding the availability and advisability of making a mark-to-market election with respect to their common shares of ADSs based on their particular circumstances.

A U.S. Holder that makes a QEF election will be currently taxable on its pro rata share of our ordinary earnings and net capital gain (at ordinary income and long-term capital gain rates, respectively) for each of our taxable years, regardless of whether we distributed the income and gain. The U.S. Holder’s basis in the common shares or ADSs will be increased to reflect taxed but undistributed income. Distributions of income that had previously been taxed will result in a corresponding reduction of tax basis in the common shares or ADSs and will not be taxed again as a distribution to the U.S. Holder.

In addition, notwithstanding any election that a U.S. Holder makes with regard to the common shares or ADSs, dividends that a non-corporate U.S. Holder receives from us will not constitute qualified dividend income if we are a PFIC either in the taxable year of the distribution or the preceding taxable year.

Special rules apply with respect to the calculation of the amount of the foreign tax credit with respect to excess distributions by a PFIC or, in certain cases, QEF inclusions.

139

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A U.S. Holder who owns common shares or ADSs during any taxable year that we are a PFIC in excess of certain de minimus amounts and fails to qualify for certain other exemptions would be required to file IRS Form 8621. In addition, under certain circumstances, the temporary regulations also require a “United States person” (as such term is defined in the Code) that owns an interest in a PFIC as an indirect shareholder through one or more United States persons to file Form 8621 for any taxable year during which such indirect shareholder is treated as receiving an excess distribution in connection with the ownership or disposition of such interest, or reports income pursuant to a mark-to-market or QEF election, among other circumstances. U.S. holders should consult their own tax advisors regarding the application of the PFIC rules to the common shares or ADSs.

### ***Backup Withholding and Information Reporting***

#### ***U.S. Holders***

Dividends paid on, and proceeds from the sale, redemption or other taxable disposition of common shares or ADSs received by a U.S. Holder generally will be subject to information reporting and backup withholding, unless, in the case of backup withholding, the U.S. Holder provides an accurate taxpayer identification number or in either case otherwise establishes an exemption. The amount of any backup withholding collected from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder’s U.S. federal income tax liability and may entitle the U.S. Holder to a refund, provided that certain required information is timely furnished to the IRS.

#### ***Non-U.S. Holders***

If common shares are held by a Non-U.S. Holder through the non-U.S. office of a non-U.S. related broker or financial institution, backup withholding and information reporting generally would not be required. Information reporting, and possibly backup withholding, may apply if the common shares are held by a Non-U.S. Holder through a U.S., or U.S.-related, broker or financial institution, or the U.S. office of a non-U.S. broker or financial institution and the Non-U.S. Holder fails to provide appropriate information. Information reporting and backup withholding generally will apply with respect to ADSs if the Non-U.S. Holder fails to timely provide appropriate information. Non-U.S. Holders should consult their tax advisors regarding the application of these rules.

### ***“Specified Foreign Financial Asset” Reporting***

Owners of “specified foreign financial assets” with an aggregate value in excess of US\$50,000 (and in some circumstances, a higher threshold), may be required to file an information report with respect to such assets with their

U.S. federal income tax returns. “Specified foreign financial assets” generally include any financial accounts maintained by foreign financial institutions as well as any of the following, but only if they are not held in accounts maintained by financial institutions: (i) stocks and securities issued by non-U.S. persons, (ii) financial instruments and contracts held for investment that have non-U.S. issuers or counterparties and (iii) interests in foreign entities.

Prospective purchasers should consult their own tax advisors regarding the application of the U.S. federal income tax laws to their particular situations as well as any additional tax consequences resulting from purchasing, holding or disposing of common shares or ADSs, including the applicability and effect of the tax laws of any state, local or foreign jurisdiction, including estate, gift, and inheritance laws.

**10F. Dividends and Paying Agents**

Not applicable.

**10G. Statement by Experts**

Not applicable.

## 10H. Documents on Display

We are subject to the information requirements of the Exchange Act and accordingly file reports and other information with the SEC. Reports and other information filed by us with the SEC may be inspected and copied at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You can obtain further information about the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Our SEC filings are also available to the public from the SEC's website at <http://www.sec.gov>. You may also inspect our reports and other information at the offices of the NYSE, 11 Wall Street, New York, New York 10005, on which our ADSs are listed. For further information on obtaining copies of our public filings at the NYSE, you should call (212) 656-5060. We also file financial statements and other periodic reports with the CVM.

## 10I. Subsidiary Information

Not required.

## Item 11. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to a number of different market risks arising from our normal business activities. Market risk is the possibility that changes in interest rates, currency exchange rates, commodities prices could adversely affect the value of financial assets, liabilities, expected future cash flows or earnings. We developed policies aimed at managing the volatility inherent to certain of these natural business *exposures*. We may use financial instruments, such as derivatives, in order to achieve the main goals established by our Board of Directors to minimize the cost of capital and maximize the returns on financial assets, while observing, as determined by our Board of Directors, parameters of credit and risk. Derivatives are contracts whose value is derived from one or more underlying financial instruments, indicies or prices defined in the contract. Only well-understood, conventional derivative instruments are used for these purposes. These include futures and options traded on regulated exchanges and "over-the-counter" swaps, options and forward contracts.

### Market Risk Exposures and Market Risk Management

Our treasury department is responsible for managing our market risk exposures. We use some internal controls in order to:

- help us understand market risks;
- reduce the likelihood of financial losses; and
- diminish the volatility of financial results.

The principal tools used by our treasury department are:

- "Sensitivity Analysis," which measures the impact that movements in the price of different market variables such as interest rates and exchange rates will have in our earnings and cash flows; and
- "Stress Testing," which measures the worst possible loss from a set of consistent scenarios to which probabilities are not assigned. The scenarios are deliberately chosen to include extreme changes in interest and currency exchange

rates.

Following is a discussion of the primary market risk exposures that we face together with an analysis of the exposure to each one of them.

### **Interest Rate Risk**

We are exposed to interest rate risk on short- and long-term instruments and as a result of refinancing of fixed-rate instruments included in our consolidated debt. Consequently, in addition to managing the currency and maturity of debt, we manage interest costs through a balance between floating rate debt, which has inherently higher risk, and fixed-rate debt. We can use derivatives to achieve the desired ratio between floating-rate debt and fixed-rate debt. The desired ratio varies according to market conditions.

141

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We are basically exposed to the following floating interest rates:

- U.S. dollar LIBOR, due to our floating rate U.S. dollar-denominated debt (usually trade-finance related), to our cash position held offshore in U.S. dollars, which is invested in short-term instruments,
- TJLP (Long Term Interest Rate), due to *real*-denominated debt indexed to this interest rate, and
- CDI (benchmark Brazilian *real* overnight rate), due to our cash held in Brazil (onshore cash) and to our CDI indexed debt.

| Exposure as of<br>December 2016* | Notional<br>amount | Maturities |       |       |       |       |            |
|----------------------------------|--------------------|------------|-------|-------|-------|-------|------------|
|                                  |                    | 2017       | 2018  | 2019  | 2020  | 2021  | Thereafter |
| (amortization)                   |                    |            |       |       |       |       |            |
| <b>U.S. dollar LIBOR</b>         | 5,277              | 505        | 735   | 1,630 | 1,649 | 533   | 225        |
| <b>U.S. dollar fixed rate</b>    | 8,788              | -          | -     | 2,205 | 3,324 | -     | 3,259      |
| <b>CDI</b>                       | 14,431             | 880        | 4,708 | 3,178 | 2,361 | 1,627 | 1,677      |
| <b>Euro fixed rate</b>           | 332                | 83         | 83    | 83    | 83    | -     | -          |
| <b>TJLP</b>                      | 1,070              | 62         | 59    | 71    | 65    | 58    | 755        |
| <b>Other</b>                     | 31                 | 16         | 8     | 2     | 2     | 2     | 1          |

| Exposure as of<br>December 2015* | Notional<br>amount | Maturities |      |       |       |       | Thereafter |
|----------------------------------|--------------------|------------|------|-------|-------|-------|------------|
|                                  |                    | 2016       | 2017 | 2018  | 2019  | 2020  |            |
| (amortization)                   |                    |            |      |       |       |       |            |
| <b>U.S. dollar LIBOR</b>         | 6,512              | 449        | 605  | 881   | 1,693 | 1,976 | 908        |
| <b>U.S. dollar fixed rate</b>    | 11,103             | 287        | -    | -     | 2,801 | 4,110 | 3,905      |
| <b>CDI</b>                       | 14,496             | 345        | 680  | 4,728 | 3,078 | 2,361 | 3,304      |
| <b>Euro fixed rate</b>           | 510                | 102        | 102  | 102   | 102   | 102   | -          |

|              |              |     |    |    |    |    |     |
|--------------|--------------|-----|----|----|----|----|-----|
| <b>TJLP</b>  | <b>1,052</b> | 40  | 57 | 57 | 66 | 60 | 772 |
| <b>Other</b> | <b>141</b>   | 104 | 15 | 11 | 3  | 3  | 5   |

\*All figures in R\$million.



Our cash and cash equivalent were as follows:

|                       | December 31, 2016 | December 31, 2015 | Exposure |
|-----------------------|-------------------|-------------------|----------|
| Cash in reais:        | 1,899             | 1,488             | CDI      |
| Cash in U.S. dollars: | 925               | 2,399             | LIBOR    |

The table below shows the average interest rate and the average life of our debt.

|                        | December 2016     |                                | December 2015     |                                |
|------------------------|-------------------|--------------------------------|-------------------|--------------------------------|
|                        | Average rate<br>% | Average life                   | Average rate<br>% | Average life                   |
| U.S. dollar LIBOR      | 4.74              | 2.84                           | 3.00              | 3.62                           |
| U.S. dollar fixed rate | 6.76              | 13.58 (with<br>perpetual bond) | 7.15              | 14.58 (with<br>perpetual bond) |
| Euro fixed rate        | 3.88              | 1.59                           | 3.88              | 2.09                           |
| Real Fixed             | 8.00              | 1.06                           | 8.00              | 0.82                           |
| CDI                    | 112.63% of CDI    | 3.07                           | 112.54% of CDI    | 4.07                           |
| TJLP Spread            | 1.30              | 8.98                           | 1.36              | 9.79                           |

We may conduct U.S. dollar futures operations at the B3 to ensure the forward purchase or sale of U.S. dollars, which are settled by the difference in contracted R\$/US\$ buy or sell parity against the R\$/US\$ sell or buy parity, defined by the future U.S. dollar contracts traded in the B3 with daily adjustments and exchange swap agreements. The main purpose of these operations is to hedge liabilities indexed to the U.S. dollar from Brazilian real fluctuations, which are affected by market, economic, political, regulatory and geopolitical conditions, among others. The gains and losses from these contracts are directly related to exchange (dollar) and CDI fluctuations. For the duration of our U.S. dollar and fixed-rate derivatives, see tables below:

#### December 31, 2016

| (In million, unless otherwise indicated) | Functional<br>Currency | Notional<br>Amount | Average<br>Interest | Average<br>Maturity<br>(days) |
|--|------------------------|--------------------|---------------------|-------------------------------|
| DI future                                | Real                   | 1,641              | -                   | 2                             |
| Hedge accounting of export               | U.S. Dollar            | 1,458              | -                   |                               |
| Hedge accounting net investment          | Euro                   | 96                 | -                   |                               |
| CDI-to-fixed rate interest rate swap     | Real                   |                    | -                   |                               |
| Fixed rate-to-CDI interest rate swap     | Real                   |                    | -                   |                               |

#### December 31, 2015

| <b>(In million, unless otherwise indicated)</b> | <b>Functional<br/>Currency</b> | <b>Notional<br/>Amount</b> | <b>Average<br/>Interest</b> | <b>Average<br/>Maturity<br/>(days)</b> |
|---|--------------------------------|----------------------------|-----------------------------|--|
| <b>Dollar future-to-real</b>                    | U.S. Dollar                    | 1,435                      | -                           | 30                                     |
| <b>Hedge accounting of export</b>               | U.S. Dollar                    | 1,558                      | -                           |  |
| <b>Hedge accounting net investment</b>          | Euro                           | 120                        | -                           |  |
| <b>CDI-to-fixed rate interest rate swap</b>     | Real                           | 150                        | -                           | 61                                     |
| <b>Fixed rate-to-CDI interest rate swap</b>     | Real                           | 345                        | -                           | 61                                     |

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### Foreign Currency Exchange Rate Risk

Fluctuations in exchange rates can have significant effects on our operating results. Therefore, exchange rate fluctuations affect the values of our *real*-denominated assets, the carrying and repayment costs of our *real*-denominated financial liabilities, our *real*-denominated production costs, the cost of *real*-denominated capital items and the prices we receive in the Brazilian market for our finished steel products. We attempt to manage our net foreign exchange rate exposures, trying to balance our non-*real* denominated assets with our non-*real* denominated liabilities. We use derivative instruments to match our non-*real* denominated assets to our non-*real* denominated liabilities, but at any given time we may still have significant foreign currency exchange rate risk exposure.

Our exposure to the U.S. dollar is due to the following contract categories:

- U.S. dollar-denominated debt;
- offshore cash;
- currency derivatives;
- U.S. dollar indexed accounts payable and receivable (usually related to international trade, i.e., imports and exports); and
- offshore investments: assets that we bought offshore and that are denominated in U.S. dollars on our balance sheet.

|   | December 31, 2016 | December 31, 2015 |
|---|-------------------|-------------------|
| <b>U.S. dollar Liabilities</b>                                    |                   |                   |
| Loans and financing   | 4,373             | 4,570             |
| Trade accounts payable  | 97                | 20                |
| Intercompany loans  | 0                 | 0                 |
| Others  | 18                | 25                |
| <b>Total Liabilities</b>  | <b>4,488</b>      | <b>4,615</b>      |
| <b>U.S. dollar Assets</b>   |                   |                   |
| Offshore cash and cash equivalents                                | 914               | 1,625             |
| Guarantee margin  | -                 | -                 |
| Trade accounts receivable   | 373               | 170               |
| Advances to suppliers   | -                 | -                 |
| Intercompany loans  | 0                 | 0                 |
| Other   | 4                 | 0                 |
| <b>Total Assets</b>   | <b>1,290</b>      | <b>1,795</b>      |
| <b>Total U.S. dollar Exposure</b>                                 | <b>(3,198)</b>    | <b>(2,820)</b>    |
| <b>Derivative notional</b>  | <b>0</b>          | <b>1,435</b>      |
| <b>Cash Flow – Hedge Accounting</b>                               | <b>1,458</b>      | <b>1,558</b>      |
| <b>Total U.S. dollar Net Exposure</b>                             | <b>(1,740)</b>    |                   |
| <b>Perpetual Bonds</b>  | <b>1,000</b>      |                   |
| <b>Total U.S. dollar Net Exposure, excluding perpetual bonds.</b> | <b>(740)</b>      | <b>173</b>        |

• Our exposure to the Euro is due to the following contract categories:

- Euro-denominated debt;
- offshore cash;
- U.S. dollar indexed accounts payable and receivable (usually related to international trade, i.e., imports and exports); and
- offshore investments: assets that we bought offshore and that are denominated in Euros on our balance sheet

|  | December 31, 2016 | December 31, 2015 |
|--|-------------------|-------------------|
| <b>Euro Liabilities</b>                                    |                   |                   |
| Loans and financing  | 98                | 122               |
| Trade accounts payable                                     | 2                 | 5                 |
| Others   | 9                 | 92                |
| <b>Total Liabilities</b>                                   | <b>109</b>        | <b>219</b>        |
| <b>Euro Assets</b>   |                   |                   |
| Offshore cash and cash equivalents                         | 6                 | 5                 |
| Trade accounts receivable                                  | 3                 | 7                 |
| Intercompany loans   | -                 | -                 |
| Advances to suppliers                                      | -                 | -                 |
| Other  | 13                | 21                |
| <b>Total Assets</b>  | <b>23</b>         | <b>33</b>         |
| <b>Total Euro Exposure</b>                                 | <b>(86)</b>       | <b>(186)</b>      |
| <b>Derivative notional</b>                                 | <b>0</b>          | <b>0</b>          |
| <b>Investment – Hedge Accounting</b>                       | <b>96</b>         | <b>120</b>        |
| <b>Perpetual bonds</b>                                     | <b>-</b>          | <b>-</b>          |
| <b>Total Euro Net Exposure , excluding perpetual bonds</b> | <b>10</b>         | <b>(66)</b>       |

### Offshore investments

We have capitalized our offshore subsidiaries domiciled in U.S. dollar-based countries with equity investments, and those investments are accounted as U.S. dollar investments. The result is that they work as assets indexed to the U.S. dollar from an earnings perspective.

### Commodity Price Risk

Fluctuations in the price of steel, iron ore and some of the commodities used in producing steel, such as zinc, aluminum, tin, coal, coke and energy, can have an impact on our earnings. Currently, we are not hedging our exposure to commodity prices.

### Sensitivity analysis

The economic environment in which we operate determines the main factors taken into consideration to establish risk scenarios. In the Brazilian economic environment, exchange rate variation is the most notable market risk.

The *real* exchange rate is significantly volatile. Between 2005 and 2016, the exchange rate had an annual volatility around 15.4%.

### Sensitivity analysis of Derivative Financial Instruments and Foreign Exchange Exposure

We considered scenarios (1 and 2) are 25% and 50% to the underlying asset appreciation, using as a benchmark the closing exchange rate as of December 31, 2016.



The currencies used in the sensitivity analysis and the respective scenarios are as follows:

| Currency       | Exchange rate | Probable scenario | December 31, 2016 |            |
|----------------|---------------|-------------------|-------------------|------------|
|                |               |                   | Scenario 1        | Scenario 2 |
| Dollar to real | 3.2591        | 3.1412            | 4.0739            | 4.8887     |
| Euro to real   | 3.4384        | 3.7230            | 4.2980            | 5.1576     |
| Dollar to euro | 1.0541        | 1.1867            | 1.3176            | 1.5812     |

| Interest | Interest rate | December 31, 2016 |            |
|----------|---------------|-------------------|------------|
|          |               | Scenario 1        | Scenario 2 |
| CDI      | 13.63%        | 17.04%            | 20.45%     |
| TJLP     | 7.5%          | 9.38%             | 11.25%     |
| LIBOR    | 1.32%         | 1.65%             | 1.98%      |

The effects on income statement, considering the scenarios 1 and 2 are shown below:

| Instruments   | Notional amount | Risk   | Probable scenario (*) | Scenario 1  | Scenario 2  |
|---|-----------------|--------|-----------------------|-------------|-------------|
| Hedge accounting of exports   | 1,457,667       | Dollar | 3,644                 | 1,187,670   | 2,375,340   |
| Exchange position functional currency BRL<br>(not including exchange derivatives above) | (3,198,191)     | Dollar | (7,995)               | (2,605,806) | (5,211,612) |
| Consolidated exchange position<br>(including exchange derivatives above)                | (1,740,524)     | Dollar | (4,351)               | (1,418,136) | (2,836,272) |
| Hedge accounting net investment   | 96,000          | Euro   | 42,768                | 82,520      | 165,040     |
| Exchange position functional currency BRL<br>(not including exchange derivatives above) | (86,060)        | Euro   | (38,340)              | (73,975)    | (147,950)   |
| Consolidated exchange position<br>(including exchange derivatives above)                | 9,940           | Euro   | 4,428                 | 8,545       | 17,090      |
| Dollar-to-euro swap   | 10,250          | Dollar | (1,574)               | (4,389)     | (8,847)     |

(\*) The probable scenarios were calculated considering the following variations to the specified risks: Real x Dollar – depreciation of Real in 0.08% / Real x Euro – appreciation of Real in 12.96% / Dollar x Euro – appreciation of dollar in 12.41%. Source: prices Central Bank of Brazil and Central Bank of Europe in November 30, 2017.

#### Sensitivity analysis of interest rate swaps

We considered scenarios (1 and 2) are 25% and 50% on interest rate (CDI) appreciation on December 31, 2016.

In thousands of R\$

| Instruments      | Notional amount | Risk | Probable scenario (*) | 12/31/2016 |            |
|------------------|-----------------|------|-----------------------|------------|------------|
|                  |                 |      |                       | Scenario 1 | Scenario 2 |
| <b>Future DI</b> | 1,641,378       | CDI  | (121)                 | 55,930     | 111,860    |

**Sensitivity analysis of changes in interest rate**

We considered the scenarios 1 and 2 to 25% and 50 % growth to volatility of interest on December 31, 2016.

147



In thousands of R\$

| Changes in interest rates | % p.a | Assets    | Liabilities  | Probable scenario (*) | Impact on profit or loss |            |
|---------------------------|-------|-----------|--------------|-----------------------|--------------------------|------------|
|                           |       |           |              |                       | Scenario 1               | Scenario 2 |
| TJLP                      | 7.50  |           | (1,070,088)  | (3,349)               | (20,064)                 | (40,128)   |
| Libor                     | 1.32  |           | (5,277,569)  | (44,586)              | (17,385)                 | (34,770)   |
| CDI                       | 13.63 | 1,390,707 | (14,442,567) | (229,164)             | (444,742)                | (889,484)  |

(\*) The sensitivity analysis is based on the assumption of maintaining as probable scenario the market rates at December 31, 2016 recorded in our assets and liabilities

### Share market price risk

We are exposed to the risk of changes in equity prices due to the investments made and classified as available-for-sale.

### Item 12. Description of Securities Other Than Equity Securities

#### *American Depositary Shares*

JP Morgan Chase Bank, N.A. serves as the depositary for our ADSs. ADR holders are required to pay various fees to the depositary, and the depositary may refuse to provide any service for which a fee is assessed until the applicable fee has been paid.

ADR

holders are required to pay the depositary amounts in respect of expenses incurred by the depositary or its agents on behalf of ADR holders, including expenses arising from compliance with applicable law, taxes or other governmental charges, facsimile transmission or conversion of foreign currency into U.S. dollars.

ADR holders are also required to pay additional fees for certain services provided by the depositary, as set forth in the table below.

#### **Depositary service**

**Issuance and delivery of ADRs, including in connection with share distributions, stock splits**

**Deposit of securities, including in respect of share, rights and other distributions**

**Withdrawal of deposited securities**

#### **Fee payable by ADR holders**

US\$5.00 for each 100 ADSs (or portion thereof)

US\$5.00 for each 100 ADSs (or portion thereof)

US\$5.00 for each 100 ADSs (or portion thereof)

#### **Direct and indirect payments by the depositary**

The depositary reimburses us for certain expenses we incur in connection with the ADR program, subject to a ceiling agreed between us and the depositary from time to time. These reimbursable expenses currently include legal and accounting fees, listing fees, investor relations expenses and fees payable to service providers for the distribution of material to ADR holders. For the year ended December 31, 2016, such reimbursements totaled US\$1 billion.

**Item 13. Defaults, Dividend Arrearages and Delinquencies**

None.

**Item 14. Material Modification to the Rights of Security Holders and Use of Proceeds**

None.

148

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## PART II

### Item 15. Controls and Procedures

#### Disclosure Controls and Procedures

We carried out an evaluation, under the supervision of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on this evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that as of December 31, 2016 the Company did not maintain effective disclosure controls and procedures because of the material weakness identified related to our monitoring process and management review controls.

Notwithstanding this material weakness, the Company has concluded that its consolidated financial statements included in this report fairly present, in all material respects, its financial position, results of operations, capital position, and cash flows for the years presented, in conformity with the International Financial and Reporting Standards – IFRS, as issued by the International Accounting Standards Board – IASB.

#### MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for establishing and maintaining adequate internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting.

The Company's internal control over financial reporting is a process designed under the supervision of the Company's CEO and CFO, Audit Committee and effected by our board of directors, Management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's consolidated financial statements for external purposes in accordance with IFRS.

Internal control over financial reporting is defined in rules 13a-15(f) and 15d-15(f) under the Exchange Act as a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS and that

receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

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

Management assessed the effectiveness of the Company's internal control over financial reporting based on the criteria for effective internal control over financial reporting established in "Internal Control - Integrated Framework," issued by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission (2013). Based on this assessment we concluded that our internal control over financial reporting was not effective as of December 31, 2016.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement in our annual financial statements will not be prevented or detected on a timely basis.

The material weakness in internal control over financial reporting that our management identified as of December 31, 2016 relates to our monitoring process and management review controls that were not adequately designed and/or implemented on complex, non-routine or infrequent transactions, including the following areas and/or transactions: (i) recoverability of investments in joint-controlled entities; (ii) realization of deferred tax assets; (iii) business combination and income tax related impacts; (iv) revenue recognition from newly implemented revenue streams; (v) goodwill impairment; and (vi) monitoring of non-financial obligations from loan agreements.

This material weakness resulted in errors that were corrected prior to the issuance of our financial statements as of and for the year ended December 31, 2016; and if not remediated, creates a reasonable possibility that a material misstatement to the consolidated financial statements will not be prevented or detected on a timely basis on future periods.

Remediation plan for the material weakness:

Within this context, management is working on plans to remediate the material weakness, that include the following procedures: (i) the definition and implementation of detailed steps that must be performed by key accounting personnel in their review of complex, non-routine or infrequent transactions to determine that the objective of the review has been achieved, including enhancements of our internal controls related to the preparation of accounting position papers documenting our analysis and conclusions; (ii) the definition of detailed steps that must be performed by key financial planning personnel in their review of valuation techniques and assumptions considered in fair value measurements and cash flow projections that support the maintenance of long-lived assets outstanding in the balance sheet; and (iii) strengthen documentation on internal communications, add further layers of technical discussions and steps of review to challenge decisions made on the maintenance, recognition, derecognition or impairment of long-lived assets and on other complex, non-routine or infrequent transactions, in order to ensure they consider the entire authoritative accounting guidance and are deeply stressed, including the engagement of external experts, where appropriate.

#### **Attestation Report of the Independent Registered Public Accounting Firm**

Deloitte Touche Tohmatsu Auditores Independentes, our independent registered public accounting firm, have concluded that as of December 31, 2016 the Company did not maintain effective disclosure controls and procedures because of the material weakness identified related to monitoring process and management review controls. For the report of Deloitte Touche Tohmatsu Auditores Independentes dated December 22, 2017 see “Item 18. Financial Statements”.

## **Changes in internal control over financial reporting**

Other than the changes resulting from the material weakness discussed above, there have been no changes in our internal control over financial reporting that occurred during the period covered by this annual report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

### **Item 16. [Reserved]**

#### **16A. Audit Committee Financial Expert**

After reviewing the qualifications of the members of our Audit Committee, our Board of Directors has determined that all three members of our Audit Committee qualify as an “audit committee financial expert,” as defined by the SEC. In addition, all of the members of our Audit Committee meet the applicable independence requirements both under Brazilian Corporate Law and under the NYSE rules.

Our Audit Committee may be assisted by a consultant, to render financial and consulting services, among others, to the members of our Audit Committee.

#### **16B. Code of Ethics**

We adopted a Code of Ethics in 1998, reinforcing our ethical standards and values that apply to all of our employees, including executive officers and directors.

The Code of Ethics was updated during 2015 and in February 2016 copies were distributed to each employee of the organization, to our Board of Directors and our Audit Committee members, who have signed a Commitment Letter, which reinforces the dedication to the established values.

In our governance structure, the compliance area is responsible for our integrity program, which aims to ensure compliance with ethical standards of conduct and transparency. This program includes continuous training for our employees and employees of our third parties, and also monitoring of compliance with laws, regulations, policies and internal standards.

In 2016, we obtained the pro-ethics quality seal, issued by the Brazilian Federal Government (Ministry of Transparency, Supervision and Controls). The seal is the result of an annual evaluation of the integrity program and reflects the efforts of the public and private sectors to promote an environment of integrity, ethics and transparency.

There was no amendment to or waiver from any provision of our Code of Ethics in 2016. Our Code of Ethics is in compliance with the SEC requirements for codes of ethics for senior financial officers. A copy of our Code of Ethics is available on our website [www.csn.com.br](http://www.csn.com.br).

### 16C. Principal Accountant Fees and Services

Our interaction with our independent auditors with respect to the contracting of services unrelated to the external audit is based on principles that preserve the independence of the auditors and are otherwise permissible under applicable rules and regulations. For the fiscal year ended December 31, 2016 and 2015, Deloitte Touche Tohmatsu Auditores Independentes acted as our independent auditor.

The following table describes the services rendered and the related fees.

|                             | 2016 | Year Ended December 31,<br><i>(In thousands of R\$)</i> | 2015  |
|-----------------------------|------|---|-------|
| <b>Audit fees</b>           |      | 8,719   | 5,063 |
| <b>Audit – related fees</b> |      |   | 871   |
| <b>Tax fees</b>             |      |   | 115   |
| <b>Total</b>                |      | 8,719   | 6,049 |

#### Audit fees

Audit fees in 2016 and 2015 consisted of the aggregate fees billed and billable by our independent auditors in connection with the audit of our consolidated financial statements, reviews of interim financial statements and attestation services that are provided in connection with statutory and regulatory filings or engagements.

#### Audit-related fees

Audit-related fees in the above table are fees billed and billable by our independent auditors for services that are reasonably related to the performance of the audit or review of our financial statements. In 2016, there were no audit-related fees. In 2015, these fees referred mainly to appraisal reports issued to attend the merger in the mining segment.

Services additional to the examination of the financial statements are submitted for prior approval to the Audit Committee in order to ensure that they do not represent a conflict of interest or affect the auditors' independence.

#### Tax Fees

In 2016, there were no fees for tax services provided by our independent auditors. Fees billed in 2015 for professional services rendered by our independent auditors are for tax compliance services and a review of tax electronic files for tax return purposes.

**16D. Exemptions from the Listing Standards for Audit Committees**

We are in full compliance with the listing standards for audit committee pursuant to Exchange Act Rule 10A-3. For a discussion on our audit committee, see “Item 6. Directors, Senior Management and Employees—Board Practices—Fiscal Committee and Audit Committee.”

**16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

Throughout the year of 2014 and 2015 in accordance with the limits and provisions of CVM Instruction No. 10/80, our Board of Directors approved various share buyback programs with the purpose of hold in treasury for subsequent disposal or cancellation. In 2016, we maintained 30,391,000 shares in Treasury.



| Program         | Board's Authorization | Authorized Quantity | Program Period        | Number Bought back | Shares Cancellation | Balance in Treasury |
|-----------------|-----------------------|---------------------|-----------------------|--------------------|---------------------|---------------------|
| 1 <sup>st</sup> | 03/13/2014            | 70,205,661          | 03/14/2014 04/14/2014 | 2,350,000          |                     | 2,350,000           |
| 2 <sup>nd</sup> | 04/15/2014            | 67,855,661          | 04/16/2014 05/23/2014 | 9,529,500          |                     | 11,879,500          |
| 3 <sup>rd</sup> | 05/23/2014            | 58,326,161          | 05/26/2014 06/25/2014 | 31,544,500         |                     | 43,424,000          |
| 4 <sup>th</sup> | 06/26/2014            | 26,781,661          | 06/26/2014 07/17/2014 | 26,781,661         |                     | 70,205,661          |
|                 | 07/18/2014            |                     |                       |                    | 60,000,000          | 10,205,661          |
| 5 <sup>th</sup> | 07/18/2014            | 64,205,661          | 07/18/2014 08/18/2014 | 240,400            |                     | 10,446,061          |
|                 | 08/19/2014            |                     |                       |                    | 10,446,061          |                     |
| 6 <sup>th</sup> | 08/19/2014            | 63,161,055          | 08/19/2014 09/25/2014 | 6,791,300          |                     | 6,791,300           |
| 7 <sup>th</sup> | 09/29/2014            | 56,369,755          | 09/29/2014 12/29/2014 | 21,758,600         |                     | 28,549,900          |
| 8 <sup>th</sup> | 12/30/2014            | 34,611,155          | 12/31/2014 03/31/2015 | 1,841,100          |                     | 30,391,000          |
| 9 <sup>th</sup> | 03/31/2015            | 32,770,055          | 04/01/2015 06/30/2015 | 0                  |                     | 30,391,000          |

### 16F. Change in Registrant's Certifying Accountant

Deloitte Touche Tohmatsu Auditores Independentes or Deloitte was appointed to act as our independent registered public accounting firm to audit our consolidated financial statements for the fiscal years ended December 31, 2016 and 2015 until the filing of this Form 20-F with the SEC. Pursuant to CVM instruction 308/99, Brazilian public companies are required to rotate their independent public accounting firm every five years. Due to the limitations set forth in these regulations, we did not seek to renew Deloitte's contract when it was expired and Deloitte Touche Tohmatsu Auditores Independentes could not attempt to stand for reelection for CVM purposes. On December 7, 2017, our Board of Directors approved the appointment of Grant Thornton Auditores Independentes to act as our independent public accounting firm for the audit of the financial statements for the year ending December 31, 2017, beginning with a review of our interim financial information for the first quarter of 2017.

Deloitte's audit report dated December 22, 2017, on our consolidated financial statements for the fiscal years ended December 31, 2016 and 2015, does not contain an adverse opinion or disclaimer of opinion, nor was it qualified or modified as to uncertainty, audit scope or accounting principles.

Deloitte's audit report dated December 22, 2017, on the effectiveness of our internal control over financial reporting as of December 31, 2016, expressed an adverse opinion related to the following material weakness: the Company did not maintain effective internal controls over monitoring process and management review controls on complex, non-routine or infrequent transactions. Deloitte's report dated May 11, 2016, on the effectiveness of our internal control over financial reporting as of December 31, 2015, expressed an adverse opinion related to the following material weakness: the Company did not maintain effective internal controls over complex and unusual transactions.

During the two fiscal years preceding the rotation of Deloitte, there were no disagreements with Deloitte, whether or not resolved, on any matter of accounting principles or practices, financial statement disclosure, or scope of audit procedures, which disagreement, if not resolved to the satisfaction of Deloitte, would have caused Deloitte to make a reference to the subject matter of the disagreement in connection with its audit reports for such fiscal years. During the two fiscal years preceding the rotation of Deloitte, there were no "reportable events" as that term is defined in Item 16F(a)(1)(v) of the instructions to Form 20-F.

We have provided Deloitte with a copy of this Item 16F and have requested that Deloitte furnish us with a letter addressed to the SEC stating whether or not it agrees with the above statements. A copy of this letter is filed as Exhibit [16.2] to this Form 20-F.

We did not consult Grant Thornton Auditores Independentes during our two most recent fiscal years or any subsequent interim period as to the application of accounting principles to a specified transaction, either completed or proposed, the type of audit opinion that might be rendered on our financial statements or any matter that was either the subject of a disagreement (as defined in Item 16F(a)(1)(iv) of Form 20 F) or a reportable event (as described in Item 16F(a)(1)(v) of Form 20 F).

## **16G. Corporate Governance**

### **Significant Differences between our Corporate Governance Practice and NYSE Corporate Governance Standards**

We are subject to the NYSE corporate governance listing standards. As a foreign private issuer, the standards applicable to us are considerably different than the standards applied to U.S. listed companies. Under the NYSE rules, we are required only to: (i) have an audit committee or audit board, pursuant to an applicable exemption available to foreign private issuers, that meets certain requirements, as discussed below, (ii) provide prompt certification by our Chief Executive Officer of any material non-compliance with any corporate governance rules, and (iii) provide a brief description of the significant differences between our corporate governance practices and the NYSE corporate governance practice required to be followed by U.S. listed companies. The discussion of the significant differences between our corporate governance practices and those required of U.S. listed companies follows below.

#### ***Majority of Independent Directors***

The NYSE rules require that a majority of the board of directors must consist of independent directors. Independence is defined by various criteria, including the absence of a material relationship between the director and the listed company. Brazilian law does not have a similar requirement. Under Brazilian law, neither our board of directors nor our management is required to test the independence of directors before their election to the board. However, both Brazilian Corporate Law and the CVM have established rules that require directors to meet certain qualification requirements and that address the compensation and duties and responsibilities of, as well as the restrictions applicable to, a company's executive officers and directors. While our directors meet the qualification requirements of Brazilian Corporate Law and the CVM, we do not believe that a majority of our directors would be considered independent under the NYSE test for director independence. Brazilian Corporate Law requires that our directors be elected by our shareholders at an annual shareholders' meeting.

#### ***Executive Sessions***

NYSE rules require that the non-management directors must meet at regularly scheduled executive sessions without management present. Brazilian Corporate Law does not have a similar provision. According to Brazilian Corporate Law, up to one-third of the members of the board of directors can be elected from management. Mr. Benjamin Steinbruch, our Chief Executive Officer, is also the Chairman of our Board of Directors. There is no requirement that non-management directors meet regularly without management. As a result, the non-management directors on our Board of Directors do not typically meet in executive sessions without management present.

#### ***Nominating and Corporate Governance Committee***

NYSE rules require that listed companies have a nominating and corporate governance committee composed entirely of independent directors and governed by a written charter addressing the committee's required purpose and detailing its required responsibilities, which include, among other things, identifying and selecting qualified board member nominees and developing a set of corporate governance principles applicable to the company. We are not required under Brazilian Corporate Law to have, and currently we do not have, a nominating and a corporate governance committee.

#### ***Compensation Committee***

NYSE rules require that listed companies have a compensation committee composed entirely of independent directors and governed by a written charter addressing the committee's required purpose and detailing its required responsibilities, which include, among other things, reviewing corporate goals relevant to the chief executive officer's compensation, evaluating the chief executive officer's performance, approving the chief executive officer's compensation levels and recommending to the board non-chief executive officer compensation, incentive-compensation and equity-based plans. We are not required under applicable Brazilian law to have, and currently do not have, a compensation committee. Under Brazilian Corporate Law, the total amount available for compensation of our directors and executive officers and for profit-sharing payments to our executive officers is established by our shareholders at the annual shareholders' meeting. The board of directors is then responsible for determining the individual compensation and profit-sharing of each executive officer, as well as the compensation of our board and committee members.

### ***Audit Committee***

NYSE rules require that listed companies have an audit committee that (i) is composed of a minimum of three independent directors who are all financially literate, (ii) meets the SEC rules regarding audit committees for listed companies, (iii) has at least one member who has accounting or financial management expertise and (iv) is governed by a written charter addressing the committee's required purpose and detailing its required responsibilities. However, as a foreign private issuer, we need only to comply with the requirement that the audit committee meet the SEC rules regarding audit committees for listed companies to the extent compatible with Brazilian corporate law. We have established an Audit Committee, which is equivalent to a U.S. audit committee, and provides assistance to our Board of Directors in matters involving our accounting, internal controls, financial reporting and compliance. Our Audit Committee recommends the appointment of our independent auditors to our Board of Directors and reviews the compensation of, and coordinates with, our independent auditors. They also report on our auditing policies and our annual audit plan prepared by our internal auditing team. Our Audit Committee also evaluates the effectiveness of our internal financial and legal compliance controls, and is comprised of up to three independent directors elected by our Board of Directors for a two-years term of office. The current members of our Audit Committee are Fernando Perrone, Yoshiaki Nakano and Antonio Bernardo Vieira Maia. All members of our Audit Committee satisfy the audit committee membership independence requirements set forth by the SEC and the NYSE. All members of our Audit Committee have been determined by our Board of Directors to qualify as an "audit committee financial expert" within the meaning of the rules adopted by the SEC relating to the disclosure of financial experts on audit committees in periodic filings pursuant to the Exchange Act. For further information on our Audit Committee, see "Item 6. Directors, Senior Management and Employees—Board Practices—Fiscal Committee and Audit Committee."

### ***Code of Business Conduct and Ethics***

NYSE rules require that listed companies adopt and disclose a code of business conduct and ethics for directors, officers and employees, and promptly disclose any waivers of the code for directors or executive officers. Applicable Brazilian law does not have a similar requirement. We have adopted a Code of Ethics applicable to all our employees, including our executive officers and directors, and it was updated in the beginning of 2016. We believe this code addresses the matters required to be addressed pursuant to the NYSE rules. For a further discussion of our Code of Ethics, see "Item 16B. Code of Ethics."

### ***Shareholder Approval of Equity Compensation Plans***

NYSE rules require that shareholders be given the opportunity to vote on all equity compensation plans and material revisions thereto, with limited exceptions. We currently do not have any such plan and, pursuant to our bylaws, we would require shareholder approval to adopt an equity compensation plan.

### ***Corporate Governance Guidelines***

NYSE rules require that listed companies adopt and disclose corporate governance guidelines. We have adopted the following corporate governance guidelines, either based on Brazilian law, our Code of Ethics or institutional handbook:

- insider trading policy for securities issued by us;
- disclosure of material facts;
- disclosure of annual financial reports;

- confidential policies and procedures; and
- Sarbanes-Oxley Disclosure Committee's duties and activities.

154

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**16H. Mine Safety Disclosure**

Not applicable as none of our mines are located in the United States and as such are not subject to the Federal Mine Safety and Health Act of 1977 or the Mine Safety and Health Administration.

**Item 17. Financial Statements**

We have responded to Item 18 in lieu of responding to this item. See “Item 18. Financial Statements.”

**PART III**

**Item 18. Financial Statements**

The following consolidated financial statements of the Registrant, together with the report of Deloitte Touche Tohmatsu Auditores Independientes thereon, are filed as part of this annual report.

|   |       |
|---|-------|
|   | Page  |
| <b>Report of Independent Registered Public Accounting Firm</b>  | FS-R1 |
| <b>Report of Independent Registered Public Accounting Firm</b>  | FS-R2 |
| <b>Consolidated financial statements:</b>   |       |
| Balance sheets as of December 31, 2016 and 2015 (Restated)  | FS- 1 |
| Statements of income for the years ended December 31, 2016, 2015 (Restated) and 2014                          | FS- 3 |
| Statements of comprehensive income the years ended December 31, 2016, 2015 (Restated) and 2014                | FS- 4 |
| Statements of cash flow for the years ended December 31, 2016, 2015 (Restated) and 2014                       | FS- 5 |
| Statements of changes in shareholders’ equity for the years ended December 31, 2016, 2015 (Restated) and 2014 | FS- 6 |
| Notes to consolidated financial statement   | FS- 7 |

The following consolidated financial statements of MRS Logística S.A. together with the report of PricewaterhouseCoopers Auditores Independientes thereon, are filed as part of this annual report.

|  |       |
|--|-------|
|  | Page  |
| <b>Report of Independent Registered Public Accounting Firm</b> | FS-R1 |
| <b>Consolidated financial statements:</b>                      |       |
| Balance sheets as of December 31, 2016 and 2015                | FS- 1 |

|  |       |
|--|-------|
| Statements of income for the years ended December 31, 2016, 2015 and 2014                          | FS- 3 |
| Statements of comprehensive income the years ended December 31, 2016, 2015 and 2014                | FS- 4 |
| Statements of changes in shareholders' equity for the years ended December 31, 2016, 2015 and 2014 | FS- 5 |
| Statements of cash flow for the years ended December 31, 2016, 2015 and 2014                       | FS- 7 |
| Notes to consolidated financial statement  | FS- 9 |

The following consolidated financial statements of Nacional Minérios S.A. together with the report of Deloitte Touche Tohmatsu Auditores Independentes thereon, are filed as part of this annual report.

|  |       |
|--|-------|
|  | Page  |
| <b>Report of Independent Registered Public Accounting Firm</b>   | FS-R1 |
| <b>Consolidated financial statements:</b>  |       |
| Balance sheets as of November 30, 2015 and December 31, 2014   | FS- 1 |
| Statements of income for the eleven month-period ended November 30, 2015 and for the year ended December 31, 2014                          | FS- 2 |
| Statements of comprehensive income for the eleven month-period ended November 30, 2015 and for the year ended December 31, 2014            | FS- 3 |
| Statements of changes in shareholders' equity for the eleven month-period ended November 30, 2015 and for the year ended December 31, 2014 | FS- 4 |
| Statements of cash flow for the eleven month-period ended November 30, 2015 and for the year ended December 31, 2014                       | FS- 5 |
| Notes to consolidated financial statement  | FS- 6 |

## Item 19. Exhibits

| Exhibit Number | Description  |
|----------------|--|
| 1.1            | Bylaws of CSN. (incorporated by reference from the Registration Statement on Form F-6K (001-14732) filed with the SEC on November 27, 2017).   |
| 2.1            | Form of Amended and Restated Deposit Agreement dated as of November 1, 1997 as amended and restated as of November 13, 1997, among Companhia Siderúrgica Nacional, JP Morgan Chase Bank, N.A. (as successor to Morgan Guaranty Trust Company of New York), as successor depository, and all holders from time to time of American Depositary Receipts issued thereunder (incorporated by reference from the Registration Statement on Form F-6 (333-7818) filed with the SEC). |
| 2.2            | Form of Amendment No. 1 to the Deposit Agreement (incorporated by reference from the Registration Statement on   |



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|              |   |   |
|--------------|---|---|
| 2.3          |   | Form F-6EF (333-115078) filed with the SEC on April 30, 2004).<br>Form of Amendment No. 2 to Deposit Agreement, including the<br>form of American Depositary Receipt (incorporate by reference<br>from the Registration Statement on Form F-6POS filed with the<br>SEC on January 5, 2011   |
| 4.1          |   | Investment Agreement, dated November 21, 2014, among<br>Companhia Siderúrgica Nacional, Brazil Japan Iron Ore<br>Corporation, POSCO, China Steel Corporation, CSN Mineração<br>and Nacional Minérios S.A. (incorporated by reference from<br>Annual Report on Form 20-F for the year ended December 31,<br>2014, filed with the SEC on April 30, 2015). |
| <u>8.1+</u>  | - | <u>List of Subsidiaries</u>   |
| <u>12.1+</u> | - | <u>Section 302 Certification of Chief Executive Officer.</u>  |
| -            | - | -   |
| <u>12.2+</u> | - | <u>Section 302 Certification of Chief Financial Officer.</u>  |
| -            | - | -   |
| <u>13.1+</u> | - | <u>Section 906 Certification of Chief Executive Officer.</u>  |
| -            | - | -   |
| <u>13.2+</u> | - | <u>Section 906 Certification of Chief Financial Officer.</u>  |
| -            | - | -   |
| 15.2         | - | Consent of Snowden do Brasil Consultoria Ltda (incorporated by<br>reference to the Annual Report on Form 20-F for the year ended<br>December 31, 2014, filed with the SEC on April 30, 2015)  |
| <u>16.2</u>  |   | <u>Cessation Letter from from Deloitte Touche Tohmatsu Auditores<br/>Independentes to the Securities and Exchange Commission</u>  |

\* Portions of this exhibit have been omitted and filed separately with the Securities and Exchange Commission as part of an application for confidential treatment pursuant to the Securities Exchange Act of 1934, as amended.

+ Filed herewith.

**SIGNATURE**

The registrant hereby certifies that it meets all the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

December 22, 2017

Companhia Siderúrgica Nacional

By: /s/ Benjamin Steinbruch

Title: Benjamin Steinbruch  
Chief Executive Officer

By:

Title: /s/ Marcelo Cunha Ribeiro  
Chief Financial Officer

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Shareholders of

Companhia Siderúrgica Nacional  
São Paulo – SP, Brazil

We have audited the internal control over financial reporting of Companhia Siderúrgica Nacional and subsidiaries (the “Company”) as of December 31, 2016, based on the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management’s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit.

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

opinion.

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

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's financial statements will not be prevented or detected on a timely basis. The following material weakness has been identified and included in management's assessment: the Company did not maintain effective internal control over the monitoring process and management review controls on complex, non-routine or infrequent transactions. This material weakness was considered in determining the nature, timing, and extent of audit tests applied in our audit of the consolidated financial statements as of and for the year ended December 31, 2016 of the Company, and this report does not affect our report on such financial statements.

In our opinion, because of the effect of the material weakness described above on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2016, based on the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We do not express an opinion or any other form of assurance on management's statements regarding its disclosures about corrective actions planned by the Company after the date of Management's assessment.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2016 of the Company and our report dated December 22, 2017 expressed an unqualified opinion on those consolidated financial statements which included

explanatory paragraphs related to (i) the restatement of the consolidated financial statements as of and for the year ended December 31, 2015; and (ii) the ability to continue as a going concern of the joint-controlled entity Transnordestina Logística S.A.

/s/ DELOITTE TOUCHE TOHMATSU

DELOITTE TOUCHE TOHMATSU

Auditores Independentes

São Paulo, Brazil

December 22, 2017

FS-R1

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of

Companhia Siderúrgica Nacional

Sao Paulo, Brazil

We have audited the accompanying consolidated balance sheets of Companhia Siderúrgica Nacional and subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board – PCAOB (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Companhia Siderúrgica Nacional and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016, in conformity with International Financial Reporting Standards – IFRS, as issued by the International Accounting Standards Board – IASB.

As discussed in note 2.a.b) to the consolidated financial statements, the accompanying consolidated financial statements for the year ended December 31, 2015 have been restated to: (a) change in the previous business combination accounting, because management has revised the fair value measurement in connection with an acquisition occurred during 2015, conducted by the subsidiary Congonhas Minérios S.A.; and (b) record an allowance over deferred income tax assets, as a consequence of a revised analysis performed by management on the recoverability of such deferred income tax assets. Our opinion is not

modified with respect to this matter.

As discussed in note 10.d) to the consolidated financial statements, the new railroad network of the joint-controlled entity Transnordestina Logística S.A. ("TLSA") is currently under construction, and certain terms on the concession agreement are still under discussion with the relevant governmental agencies. The completion of the project and consequent commencement of operations depend on the continuing contribution of funds by its shareholders and third parties. Those events or conditions, along with other matters described on such note, indicate that a material uncertainty exists, which raises substantial doubt on TLSA's ability to continue as a going concern. TLSA's Management's plans in regard to these matters are also described in Note 10.d. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. Our opinion is not modified with respect to this matter.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board – PCAOB (United States), the Company's internal control over financial reporting as of December 31, 2016, based on the criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission – COSO, and our report, dated December 22, 2017 expressed an adverse opinion on the Company's internal control over financial reporting because of a material weakness.

/s/ DELOITTE TOUCHE TOHMATSU

DELOITTE TOUCHE TOHMATSU

Auditores Independentes

São Paulo, Brazil

December 22, 2017

FS-R2

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**Companhia Siderúrgica Nacional and Subsidiaries**

Consolidated Balance Sheet

Thousands of Brazilian Reais

| <b>Assets</b>   | <b>Note</b> | <b>2016</b>       | <b>2015 (*)</b>   |
|---|-------------|-------------------|-------------------|
|   |             |                   | <b>Restated</b>   |
| <b>CURRENT ASSETS</b>                                   |             |                   |                   |
| Cash and cash equivalents                               | 5           | 4,871,162         | 7,861,052         |
| Financial Investments                                   | 6           | 760,391           | 763,599           |
| Trade receivables                                       | 7           | 1,997,216         | 1,578,277         |
| Inventories   | 8           | 3,964,136         | 4,941,314         |
| Other current assets                                    | 9           | 852,013           | 1,286,449         |
| <b>Total current assets</b>                             |             | <b>12,444,918</b> | <b>16,430,691</b> |
| <b>NON-CURRENT ASSETS</b>                               |             |                   |                   |
| Deferred income taxes                                   | 14.b        | 70,151            | 78,066            |
| Other non-current assets                                | 9           | 1,675,820         | 1,583,921         |
|   |             | <b>1,745,971</b>  | <b>1,661,987</b>  |
| Investments in associates and joint controlled entities | 10.b        | 4,568,451         | 3,998,239         |
| Property, plant and equipment                           | 11          | 18,135,879        | 17,826,226        |
| Intangible assets                                       | 12          | 7,258,404         | 7,422,266         |
| <b>Total non-current assets</b>                         |             | <b>31,708,705</b> | <b>30,908,718</b> |
| <b>TOTAL ASSETS</b>                                     |             | <b>44,153,623</b> | <b>47,339,409</b> |

(\*) The adjustments did not impact the balances of 01/01/2015 and therefore the third column of the balance sheet is not being presented.

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



**Companhia Siderúrgica Nacional and Subsidiaries**

Consolidated Balance Sheet

Thousands of Brazilian Reais

| <b>Liabilities and shareholders' equity</b>                           | <b>Note</b> | <b>2016</b>       | <b>2015 (*)</b>   |
|---|-------------|-------------------|-------------------|
|   |             |                   | <b>Restated</b>   |
| <b>CURRENT LIABILITIES</b>  |             |                   |                   |
| Payroll and related taxes   |             | 253,837           | 256,840           |
| Trade payables  |             | 1,763,206         | 1,293,008         |
| Taxes payable   |             | 231,861           | 457,391           |
| Borrowings and financing  | 13          | 2,117,448         | 1,874,681         |
| Other payables  | 15          | 1,021,724         | 1,073,017         |
| Provisions for tax, social security, labor and civil risks            | 16          | 108,607           | 127,262           |
| <b>Total current liabilities</b>                                      |             | <b>5,496,683</b>  | <b>5,082,199</b>  |
| <b>NON-CURRENT LIABILITIES</b>  |             |                   |                   |
| Borrowings and financing  | 13          | 28,323,570        | 32,407,834        |
| Other payables  | 15          | 131,137           | 131,284           |
| Deferred income taxes   | 16.b        | 1,046,897         | 1,072,033         |
| Provisions for tax, social security, labor and civil risks            | 17          | 704,485           | 711,472           |
| Pension and healthcare plan   | 28.c        | 719,266           | 514,368           |
| Provision for environmental liabilities and decommissioning of assets | 19          | 347,064           | 328,931           |
| <b>Total non-current liabilities</b>                                  |             | <b>31,272,419</b> | <b>35,165,922</b> |
| <b>Shareholders' Equity</b>   |             |                   |                   |
|   | 21          |                   |                   |
| Issued capital  |             | 4,540,000         | 4,540,000         |
| Capital reserves  |             | 30                | 30                |
| Earnings reserves   |             | 238,976           | 238,976           |
| Treasury Shares   |             | (238,976)         | (238,976)         |
| Accumulated Profit / (Loss)   |             | (1,301,961)       | (367,214)         |
| Other comprehensive income  |             | 2,956,459         | 1,790,693         |
| <b>Total equity attributable to owners of the Company</b>             |             | <b>6,194,528</b>  | <b>5,963,509</b>  |
| Non-controlling interests   |             | <b>1,189,993</b>  | <b>1,127,779</b>  |
| <b>Total equity</b>   |             | <b>7,384,521</b>  | <b>7,091,288</b>  |
| <b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>                     |             | <b>44,153,623</b> | <b>47,339,409</b> |

(\*) The adjustments did not impact the balances of 01/01/2015 and therefore the third column of the balance sheet is not being presented.

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

FS-2

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**Companhia Siderúrgica Nacional and  
Subsidiaries**

 Consolidated Statements of  
Income

Thousands of Brazilian Reais, except for the earnings (loss) per common share

|  | Note      | 2016               | 2015               | 2014               |
|--|-----------|--------------------|--------------------|--------------------|
|  |           |                    | <b>Restated</b>    |                    |
| <b>Net Revenue from sales and/or services</b>              | <b>23</b> | <b>17,148,949</b>  | <b>15,261,697</b>  | <b>16,126,232</b>  |
| Cost of sales and/or services                              | 24        | (12,640,042)       | (11,740,101)       | (11,592,382)       |
| <b>Gross profit</b>  |           | <b>4,508,907</b>   | <b>3,521,596</b>   | <b>4,533,850</b>   |
| <b>Operating income (expenses)</b>                         |           | <b>(2,563,431)</b> | <b>1,528,907</b>   | <b>(1,715,837)</b> |
| Selling expenses   | 24        | (1,696,896)        | (1,430,189)        | (1,041,975)        |
| General and administrative expenses                        | 24        | (518,232)          | (470,332)          | (438,383)          |
| Other operating income                                     | 25        | 663,509            | 3,610,347          | 90,488             |
| Other operating expenses                                   | 25        | (1,076,730)        | (1,341,191)        | (657,127)          |
| Equity in results of affiliated companies                  | 10        | 64,918             | 1,160,272          | 331,160            |
| <b>Profit before financial income (expenses) and taxes</b> |           | <b>1,945,476</b>   | <b>5,050,503</b>   | <b>2,818,013</b>   |
| Financial income   | 26        | 643,590            | 487,720            | 171,552            |
| Financial expenses   | 26        | (3,166,017)        | (3,852,882)        | (3,252,985)        |
| <b>Profit (Loss) before income taxes</b>                   |           | <b>(576,951)</b>   | <b>1,685,341</b>   | <b>(263,420)</b>   |
| Income tax and social contribution                         | 16.a      | (266,546)          | (2,903,216)        | 151,153            |
| <b>Profit (Loss) from continued operations</b>             |           | <b>(843,497)</b>   | <b>(1,217,875)</b> | <b>(123,873)</b>   |
| <b>Profit (Loss) from discontinued operations</b>          |           | <b>(9,561)</b>     | <b>1,911</b>       | <b>11,606</b>      |
| <b>Net income (loss) for the year</b>                      |           | <b>(853,058)</b>   | <b>(1,215,964)</b> | <b>(112,267)</b>   |
| <b>Profit (Loss) for the year attributed to:</b>           |           |                    |                    |                    |
| Controlling interests                                      |           | (934,747)          | (1,214,122)        | (105,218)          |
| Non-controlling interests                                  |           | 81,689             | (1,842)            | (7,049)            |

Earnings (loss) per common  
share - (reais/share)

|         |      |           |           |           |
|---------|------|-----------|-----------|-----------|
| Basic   | 21.g | (0.62857) | (0.89597) | (0.07941) |
| Diluted | 21.g | (0.62857) | (0.89597) | (0.07941) |

FS-3

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**Companhia Siderúrgica Nacional and  
Subsidiaries**

**Consolidated Statements of  
Comprehensive Income**

Thousands of Brazilian Reais

|  |      | 2016             | 2015<br>Restated   | 2014             |
|--|------|------------------|--------------------|------------------|
|  | Note |                  |                    |                  |
| <b>Consolidated profit (loss) for the year</b>   |      | <b>(853,058)</b> | <b>(1,215,964)</b> | <b>(112,267)</b> |
| <b>Other comprehensive income</b>  |      | <b>1,065,766</b> | <b>(1,190,803)</b> | <b>(691,832)</b> |
| <b>Items that will not be subsequently reclassified to the statement of income</b>             |      |                  |                    |                  |
| Actuarial gains on defined benefit plan from investments in subsidiaries                       |      | 87               | 230                | 2,221            |
| Actuarial (losses) gains on defined benefit pension plan                                       |      | (219,417)        | 92,221             | (95,175)         |
| Income tax and social contribution on actuarial (losses) gains on defined benefit pension plan |      | (2,619)          | (64,756)           | 32,360           |
|  |      | <b>(221,949)</b> | <b>27,695</b>      | <b>(60,594)</b>  |
| <b>Items that could be subsequently reclassified to the statement of income</b>                |      |                  |                    |                  |
| Cumulative translation adjustments for the year  |      | (486,890)        | 513,685            | 28,227           |
| Change in fair value of available-for-sale assets financial assets                             |      | 711,942          | (969,701)          | (971,808)        |
| Income tax and social contribution on available-for-sale financial assets                      |      |                  | 174,128            | 330,415          |
| Impairment of available-for-sale assets  | 14   |                  | 555,298            | 205,000          |
| Income tax and social contribution on impairment of available-for-sale assets                  | 14   |                  | (33,269)           | (69,700)         |
| (Loss) gain on percentage change in investments  |      | 1,299            | 1,980              | (73,754)         |
| (Loss) gain on cash flow hedge accounting  | 14   | 1,005,968        | (1,410,896)        | (120,633)        |
| Income tax and social contribution on (loss) gain on cash flow hedge accounting                | 14   |                  | (41,014)           | 41,015           |
| Cash Flow hedge reclassified to income statement   | 14.b | 77,444           | 11,439             |                  |
| (Loss) gain on hedge of net investments in subsidiaries  | 14.b | 77,952           | (20,148)           |                  |
|  |      | <b>1,387,715</b> | <b>(1,218,498)</b> | <b>(631,238)</b> |
| <b>Comprehensive income (loss) for the year</b>  |      | <b>312,708</b>   | <b>(2,406,767)</b> | <b>(804,099)</b> |
| <b>Attributable to:</b>  |      |                  |                    |                  |
| Attributed to owners of the Company  |      | 231,019          | (2,404,925)        | (797,050)        |
| Attributed to non-controlling interests  |      | 81,689           | (1,842)            | (7,049)          |

FS-4

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**Companhia Siderúrgica Nacional and Subsidiaries**

Consolidated Statements of Cash Flows

Thousands of Brazilian Reais

|  | Note | 2016             | 2015<br>Restated | 2014             |
|--|------|------------------|------------------|------------------|
| Profit (Loss) for the year   |      | (853,058)        | (1,215,964)      | (112,267)        |
| <b>Adjustments to reconcile net income (loss) to net cash provided by operations</b> |      |                  |                  |                  |
| Accrued charges on borrowings and financing  |      | 2,944,558        | 2,889,163        | 2,782,681        |
| Charges on loans and financing granted   |      | (58,731)         | (65,084)         | (41,373)         |
| Depreciation/ depletion / amortization   | 11.a | 1,322,497        | 1,176,840        | 1,281,485        |
| Equity in results of affiliated companies  | 10   | (64,918)         | (1,160,348)      | (331,160)        |
| Deferred income tax and social contribution  |      | 60,368           | 2,767,545        | (679,323)        |
| Provision for tax, social security, labor and civil risks                            |      | (25,642)         | 85,965           | 5,302            |
| Monetary variations and exchange differences   |      | (1,038,018)      | 3,389,448        | 1,185,761        |
| Provision of swaps/forwards transactions   |      | (5,467)          | 4,086            | 4,869            |
| Impairment of available-for-sale assets  | 14   |                  | 555,298          | 205,000          |
| Proceeds from disposal of assets   | 25   | 88,339           | 6,466            | 15,232           |
| Gain on repurchase of debt securities  |      | (146,214)        | (166,642)        |                  |
| Provision for actuarial liabilities  |      | (18,803)         | 1,193            | 7,350            |
| Gain on business combination   |      | (66,496)         | (3,297,499)      |                  |
| Gain on disposal of available for sale assets  |      | (252,023)        |                  |                  |
| Provision for environmental liabilities and decommissioning of assets                |      | 18,133           |                  |                  |
| Impairment of Transnordestina  |      | 387,989          |                  |                  |
| Other provisions   |      | (993)            | 101,855          | 44,825           |
|  |      | <b>2,291,521</b> | <b>5,072,322</b> | <b>4,368,382</b> |
| <b>Changes in assets and liabilities</b>   |      |                  |                  |                  |
| Trade receivables - third parties  |      | (388,469)        | 208,488          | 88,736           |
| Trade receivables - related parties  |      | (3,956)          | 217,439          | (143,218)        |
| Inventories  |      | 947,834          | (726,800)        | (917,193)        |
| Receivables from related parties   |      | 34,082           | 3,545,142        | 263,569          |
| Recoverable taxes  |      | 275,018          | (537,669)        | (27,944)         |
| Judicial deposits  |      | 38,910           | (35,415)         | 203,065          |
| Trade payables   |      | 482,009          | 301,118          | 219,353          |
| Payroll and related taxes  |      | (5,691)          | 188,734          | 9,777            |

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|   |                    |                    |                    |
|---|--------------------|--------------------|--------------------|
| Taxes in installments - REFIS   | (253,374)          | (176,737)          | (567,000)          |
| Payables to related parties   | (9,726)            | (69,412)           | 2,080              |
| Interest paid   | (3,050,036)        | (2,964,826)        | (2,744,954)        |
| Interest received   | 19,636             | 8,402              | 13,609             |
| Interest on swaps paid  | (3,999)            |                    | (1,279)            |
| Other   | (97,841)           | 38,377             | 56,726             |
| <b>Increase (Decrease) in assets and liabilities</b>                              | <b>(2,015,603)</b> | <b>(3,159)</b>     | <b>(3,544,673)</b> |
| <b>Net cash generated by operating activities</b>                                 | <b>275,918</b>     | <b>5,069,163</b>   | <b>823,709</b>     |
| Investments / acquisition of shares   | (190,435)          | (2,727,036)        | (8,376)            |
| Purchase of property, plant and equipment   | 11 (1,628,694)     | (1,616,173)        | (1,848,496)        |
| Capital reduction on joint venture  |                    | 466,758            |                    |
| Payment in derivative transactions  | (722,443)          | 903,153            | 76,607             |
| Purchase of intangible assets   | 12 (3,119)         | (1,462)            | (727)              |
| Cash and cash equivalents in Namisa consolidation                                 |                    | 456,364            |                    |
| Loans - related-party   |                    |                    | 127,366            |
| Loans granted to related parties  | (96,461)           | (61,217)           |                    |
| Short-term investment, net of redeemed amount                                     | 3,208              | (728,725)          | (4,117)            |
| Receipt loans – related party   |                    | 443,345            |                    |
| Cash and Cash equivalents from discontinued operations                            | 331,835            |                    |                    |
| Cash and Cash equivalents on acquisition of control                               | 941                |                    |                    |
| <b>Net cash used in investing activities</b>                                      | <b>(2,305,168)</b> | <b>(2,864,993)</b> | <b>(1,657,743)</b> |
| Borrowings and financing raised   | 13                 | 22,597             | 411,793            |
| Cost of borrowing   |                    | (26,844)           | (38,302)           |
| Payment of borrowings   |                    | (398,699)          | (2,380,968)        |
| Payment of borrowings - related parties   |                    |                    | (52,839)           |
| Payment of dividends and interests on shareholder's equity                        |                    | (53)               | (549,835)          |
| Treasury shares   |                    |                    | (9,390)            |
| Forfeiting funding / drawee risk  |                    | 78,240             | 924,706            |
| Forfeiting amortization / drawee risk   |                    | (407,155)          | (1,146,306)        |
| Buyback of debt securities  |                    | (151,098)          | (249,627)          |
| <b>Net cash used in financing activities</b>                                      |                    | <b>(883,012)</b>   | <b>(3,090,768)</b> |
| <b>Exchange rate changes on cash and cash equivalents of foreign subsidiaries</b> | <b>(77,628)</b>    | <b>61,629</b>      | <b>55,722</b>      |
| Increase (Decrease) in cash and cash equivalents                                  | (2,989,890)        | (824,969)          | (1,309,651)        |
| Cash and cash equivalents at the beginning of the year                            | 7,861,052          | 8,686,021          | 9,995,672          |
| <b>Cash and cash equivalents at the end of the year</b>                           | <b>4,871,162</b>   | <b>7,861,052</b>   | <b>8,686,021</b>   |



The accompanying notes are an integral part of these consolidated financial statements.  
FS-5

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**Companhia Siderúrgica Nacional and Subsidiaries**

Consolidated Statement of Changes

in Shareholders' Equity

Thousands of Brazilian reais

|   | Paid-in<br>Capital | Capital<br>Reserve | Earnings<br>Reserve | Retained<br>earnings | Other<br>comprehensive<br>income | Shareholders' Equity | Non-Controll<br>interests |
|---|--------------------|--------------------|---------------------|----------------------|----------------------------------|----------------------|---------------------------|
| <b>Balances at<br/>December 31,<br/>2013</b>                  | 4,540,000          | 30                 | 2,839,568           | 0                    | 716,972                          | 8,096,570            | (27,5                     |
| <b>Capital<br/>transactions<br/>with<br/>shareholders</b>     |                    |                    | (1,609,204)         |                      |                                  | (1,609,204)          |                           |
| Treasury shares<br>acquired                                   |                    |                    | (909,204)           |                      |                                  | (909,204)            |                           |
| Declared<br>dividends<br>(R\$495.16 per<br>thousand shares)   |                    |                    | (700,000)           |                      |                                  | (700,000)            |                           |
| <b>Total<br/>comprehensive<br/>income</b>                     |                    |                    |                     | (99,066)             | (691,832)                        | (790,898)            | (7,0                      |
| Profit for the year   |                    |                    |                     | (105,218)            |                                  | (105,218)            | (7,0                      |
| <b>Other<br/>comprehensive<br/>income</b>                     |                    |                    |                     | 6,152                | (691,832)                        | (685,680)            |                           |
| Cumulative<br>translation<br>adjustments for<br>the period    |                    |                    |                     |                      | 28,227                           | 28,227               |                           |
| Actuarial<br>gain(loss) on<br>defined benefit<br>pension plan |                    |                    |                     |                      | (54,442)                         | (54,442)             |                           |
| Actuarial gain<br>recycled to<br>retained earnings            |                    |                    |                     | 6,152                | (6,152)                          |                      |                           |
| Loss on<br>available-for-sale<br>assets, net of<br>taxes      |                    |                    |                     |                      | (506,093)                        | (506,093)            |                           |
| Gain on<br>percentage<br>change in<br>investments             |                    |                    |                     |                      | (73,754)                         | (73,754)             |                           |
|   |                    |                    |                     |                      | (79,618)                         | (79,618)             |                           |

|   |                  |           |                  |               |               |                  |  |               |
|---|------------------|-----------|------------------|---------------|---------------|------------------|--|---------------|
| Losses on hedge accounting, net of taxes                            |                  |           |                  |               |               |                  |  |               |
| <b>Internal changes in shareholders' equity</b>                     |                  |           | <b>(99,066)</b>  | <b>99,066</b> |               |                  |  |               |
| Reversal of statutory working capital reserve                       |                  |           | (99,066)         | 99,066        |               |                  |  |               |
| Non-controlling interests in subsidiaries                           |                  |           |                  |               |               |                  |  | 73,000        |
| <b>Balances at December 31, 2014</b>                                | <b>4,540,000</b> | <b>30</b> | <b>1,131,298</b> | <b>0</b>      | <b>25,140</b> | <b>5,696,468</b> |  | <b>38,000</b> |
| <b>Capital transactions with shareholders</b>                       |                  |           | <b>(284,390)</b> |               |               | <b>(284,390)</b> |  |               |
| Treasury shares acquired  |                  |           | (9,390)          |               |               | (9,390)          |  |               |
| Declared dividends (R\$202.63 per thousand shares)                  |                  |           | (275,000)        |               |               | (275,000)        |  |               |
| <b>Total comprehensive income</b>                                   |                  |           |                  | (1,214,122)   | 1,765,553     | 551,431          |  | (1,800,000)   |
| Profit (loss) for the year (Restated)                               |                  |           |                  | (1,214,122)   |               | (1,214,122)      |  | (1,800,000)   |
| <b>Other comprehensive income</b>                                   |                  |           |                  |               | 1,765,553     | 1,765,553        |  |               |
| Cumulative translation adjustments for the period                   |                  |           |                  |               | 513,685       | 513,685          |  |               |
| Actuarial gain (loss) on defined benefit pension plan, net of taxes |                  |           |                  |               | 27,695        | 27,695           |  |               |
| Gain (Loss) on available-for-sale assets, net of taxes              |                  |           |                  |               | (273,544)     | (273,544)        |  |               |
| (Loss)/Gain on percentage change in investments                     |                  |           |                  |               | 1,980         | 1,980            |  |               |
|   |                  |           |                  |               | (1,440,471)   | (1,440,471)      |  |               |

|  |                  |           |           |                  |                  |                  |               |
|--|------------------|-----------|-----------|------------------|------------------|------------------|---------------|
| Gain/(loss) on hedge accounting, net of taxes        |                  |           |           |                  |                  |                  |               |
| Gain/(loss) on net investment hedge                  |                  |           |           | (20,148)         |                  | (20,148)         |               |
| Gain/(loss) on business combination                  |                  |           |           | 2,956,356        |                  | 2,956,356        |               |
| <b>Internal changes in shareholders' equity</b>      |                  |           | (846,908) | 846,908          |                  |                  | 1,091,        |
| Earnings reserve                                     |                  |           | (846,908) | 846,908          |                  |                  |               |
| <b>Non-controlling interests in subsidiaries</b>     |                  |           |           |                  |                  |                  | <b>1,091,</b> |
| <b>Balances at December 31, 2015 (Restated)</b>      | <b>4,540,000</b> | <b>30</b> |           | <b>(367,214)</b> | <b>1,790,693</b> | <b>5,963,509</b> | <b>1,127,</b> |
| <b>Capital transactions with shareholders</b>        |                  |           |           |                  |                  |                  |               |
| <b>Total comprehensive income</b>                    |                  |           |           | <b>(934,747)</b> | <b>1,165,766</b> | <b>231,019</b>   | <b>81,</b>    |
| Profit (loss) for the year                           |                  |           |           | (934,747)        |                  | (934,747)        | 81,           |
| <b>Other comprehensive income</b>                    |                  |           |           |                  | <b>1,165,766</b> | <b>1,165,766</b> |               |
| Cumulative translation adjustments for the period    |                  |           |           |                  | <b>(486,890)</b> | <b>(486,890)</b> |               |
| Actuarial gain(loss) on defined benefit pension plan |                  |           |           |                  | (221,949)        | (221,949)        |               |
| Gain on available-for-sale assets, net of taxes      |                  |           |           |                  | 711,942          | 711,942          |               |
| Gain on percentage change in investments             |                  |           |           |                  | 1,299            | 1,299            |               |
| Gain(loss) on hedge accounting, net of taxes         |                  |           |           |                  | 1,083,412        | 1,083,412        |               |

|  |                  |           |                    |                  |                  |               |       |
|--|------------------|-----------|--------------------|------------------|------------------|---------------|-------|
| Gain(loss) on net investment hedge, net of taxes |                  |           |                    | 77,952           |                  | 77,952        |       |
| <b>Internal changes in shareholders' equity</b>  |                  |           |                    |                  |                  |               | (19,4 |
| Non-controlling interests in subsidiaries        |                  |           |                    |                  |                  |               | (19,4 |
| <b>Balances at December 31, 2016</b>             | <b>4,540,000</b> | <b>30</b> | <b>(1,301,961)</b> | <b>2,956,459</b> | <b>6,194,528</b> | <b>1,189,</b> |       |

FS-6

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(Expressed in thousands of reais – R\$, unless otherwise stated)

## 1. DESCRIPTION OF BUSINESS

Companhia Siderúrgica Nacional “CSN”, also referred to as the Company, is a publicly-held company incorporated on April 9, 1941, under the laws of the Federative Republic of Brazil (Companhia Siderúrgica Nacional, its subsidiaries, joint ventures, joint operations and associates are collectively referred to herein as the “Group”). The Company’s registered office is located at Av. Brigadeiro Faria Lima, 3.400, 19<sup>th</sup> and 20<sup>th</sup> floors, Itaim Bibi, São Paulo, Brazil, CEP 04538-132.

CSN has shares listed on the São Paulo Stock Exchange (BM&F BOVESPA) and on the New York Stock Exchange (NYSE), under the code SID. Accordingly, the Company reports its information to the Brazilian Securities Commission (CVM) and the U.S. Securities and Exchange Commission (SEC).

The Group's main operating activities are divided into five (5) operating segments as follows:

- **Steel:**

The Company’s main industrial facility is the Presidente Vargas steelworks (“UPV”), located in the city of Volta Redonda, State of Rio de Janeiro. This segment consolidates the operations related to the production, distribution and sale of flat steel, long steel, metallic containers and galvanized steel. In addition to the facilities in Brazil, CSN has operations in the United States, Portugal and Germany, all of them are in line with the plan to achieve new markets and perform excellent services for final consumers. Its steel has been used in home appliances, civil construction and automobile industries.

- **Mining:**

The production of iron ore is developed in the city of Congonhas, State of Minas Gerais.

Iron ore is sold basically in the international market, especially in Europe and Asia. The prices charged in these markets are historically cyclical and subject to significant fluctuations over short periods of time, driven by several factors related to global demand, strategies adopted by the major steel producers and the foreign exchange rate. All these factors are beyond the Company's control. The ore transportation is accomplished by Terminal de Carvão e Minérios do Porto de Itaguai - TECAR, a solid bulk terminal, one of the four terminals that compose the Port of Itaguai, located in Rio de Janeiro. Imports of coal and coke are held through this terminal and directed to the steel industry of CSN.

On November 30, 2015 the Company has transferred to its subsidiary CSN Mineração S.A. (previous Congonhas Minérios S.A.) the mining assets, the logistical infrastructure, including the mine Casa de Pedra, the right to operate the terminal TECAR S.A and equity interest in MRS Logística S.A. ("MRS"). On the same date, the business combination of Nacional Minérios S.A ("Namisa"), result in participation of Asian Consortium of 12.48% stake in CSN Mineração S. A.

The Company's mining activities also comprises tin exploitation, which is based in the State of Rondônia, this facility is engaged to supply the needs of UPV, with the excess of raw materials being sold to subsidiaries and third parties.

- **Cement:**

CSN entered in the cement market boosted by the synergy between this new activity and its existing businesses. Next to the Presidente Vargas steelworks(UPV)in Volta Redonda (RJ), is installed the new business unit: CSN Cimentos, which produces CP-III type of cement by using slag produced by the UPV blast furnaces in Volta Redonda. It also explores limestone and dolomite at the Arcos unit, located in the State of Minas Gerais, to satisfy the needs of UPV as of the cement plant.

In the second half of 2016, the Company started the operation of a new clinker kiln in Arcos, where the company already operates a clinker kiln using its limestone of a company-owned mine and two cement mills. With this project, the cement production capacity in the Southeast will reach 4.4 million tons per year. At a later stage the Company evaluates the deployment of an advanced milling unit, adding another 1 million tons.

- **Logistics**

*Railroads:*

FS-7

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CSN has interests in three railroad companies: MRS Logística S. A., which explores the former Southeast Railway System of Rede Ferroviária Federal S.A. (“RFFSA”), Transnordestina Logística S. A. (“TLSA”) and FTL - Ferrovia Transnordestina Logística S.A. (“FTL”), concessionaires of the former Northeast Railway System of RFFSA, in the States of Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco and Alagoas, with TLSA being responsible for the rail links sections of Missão Velha-Salgueiro, Salgueiro-Trindade, Trindade-Eliseu Martins, Salgueiro-Porto de Suape and Missão Velha-Porto de Pecém (Railway System II) and FTL being responsible for the sections rail links of São Luiz-Mucuripe, Arrojado-Recife, Itabaiana-Cabedelo, Paula Cavalcante-Macau and Propriá-Jorge Lins (Railway System I).

*Ports:*

In the State of Rio de Janeiro, by means of its subsidiaries Sepetiba Tecon S.A. and CSN Mineração S.A., the Company operates the Container Terminal (Tecon) and the solid bulk terminal (Tecar), respectively, both located at the Itaguaí Port. Established in the harbor of Sepetiba, the mentioned port has a privileged highway, railroad and maritime access.

Tecon is responsible for the shipments of CSN’s steel products, movement and storage of containers, consolidation and deconsolidation of cargo. The Tecar’s port terminal is engaged to the iron ore shipment overseas and to the landing of coal, petroleum, coke, sulfur and zinc concentrate for our own operation and for third parties.

- **Energy:**

Since the energy supply is fundamental in CSN’s production process, the Company owns and operates facilities to generate electric power for guaranteeing its self-sufficiency.

The note 27 - “Segment Information” details the financial information per each of CSN’s business segment.

**Going Concern**

On December 31, 2016, the Company has borrowings amounting to R\$30.5 billion, of which R\$28.3 billion have maturities in the long term, as mentioned in note 13 to the financial statements. During 2017, the Company amortized principal and interest in the amount of approximately R\$4.0 billion. During 2018 the borrowings are expected to be repaid and, including interest to be incurred next year, amount to approximately R\$7.7billion.

The financial leverage may adversely affect the businesses, financial conditions and operating results. Which can entail the following considerations:

- Allocation of a substantial part of the cash generated from operations for repayment of the borrowings.
- Exposure (i) to fluctuations in interest rates due to the renegotiation of debts and new borrowings taken, and fluctuations in exchange rates since a significant part of the borrowings is denominated in foreign currency.
- Increase in the economic and financial vulnerability due to adverse conditions of the industry and segment, limiting the funds available in the short term, considering the high financial leverage and the expected cash disbursements;
- Limitation of the Company's ability to enter into new businesses (acquisitions) until the financial leverage is reduced;
- Limitation of the Company's ability to obtain new credit lines under more favorable interest conditions due to the risks associated to the current financial leverage.

The Company's ability to continue operating depends on the achievement of operating targets defined by Management, in addition to refinancing of contracted debts, and/or actions related to financial deleveraging.

In addition to the continuous focus on improvement in operating income, which showed an evolution in 2016 when compared to the previous year, Management has various actions in progress to increase the Company's liquidity through an extension of borrowing payment terms.

This plan was started in 2015, with the renegotiation of R\$ 2.5 billion with Caixa Econômica Federal and R\$ 2.2 billion with Banco do Brasil S.A, postponing the maturities from 2016 and 2017 to 2018 through 2022. In 2016, the Company extended the installments of certain NCE contracts amounting to R\$ 100 million and prepayments of US\$ 66 million with Bradesco, postponing the maturities from 2016 to 2019. Management

remains committed to the plan to extend debt payment term, mainly those of short term, estimating the renegotiation of borrowings at R\$ 1.5 billion.

FS-8

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Additionally, Management studies alternatives to financial deleverage from the disposal of non-strategic assets; however, it is not possible to affirm that the sale of assets will occur within a 12-month period. Thus, the Company did not segregate and did not reclassify any assets in the financial statements as discontinued operations in accordance with IFRS 5.

Based on Management's cash flow projections that covered the period until December 2018 as of the date of these financial statements, which depend on factors such as the achievement of production targets, sales volumes and prices, as well as on renegotiations of borrowings, Management believes that the Company has appropriate resources to continue as a going concern in a reasonably estimable period of time. Accordingly, the Company's financial statements for the year ended December 31, 2016 have been prepared on the assumption that the Company will continue as a going concern.

## **2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

### **2.a) Basis of preparation**

The consolidated financial statements have been prepared and are being presented in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB). All the relevant information of the financial statements, and only this information, are being highlighted and correspond to those used by the Company's management.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Company's accounting policies. It is disclosed in the notes to this report all subjects involving a high degree of judgment or complexity or when assumptions and estimates are significant to the consolidated financial statements, those subjects are related to the allowance for doubtful debts, provision for inventory losses, provision for labor, civil, tax, environmental and social security contingences, depreciation, amortization, depletion, provision for impairment, deferred taxes, financial instruments and employee benefits. Actual results may differ from these estimates.

The financial statements are presented in thousands of Brazilian Reais (R\$). Depending on the applicable IFRS standard, the measurement criteria used in preparing the financial statements considers the historical cost, net realizable value, fair value or recoverable amount. When the IFRS allows us to option between

acquisition cost and other measurement criteria, the acquisition cost was the criteria used.

The consolidated financial statements were approved by the Board of Directors on December 22, 2017.

## **2.b) Consolidated financial statements**

The accounting policies have been consistently applied to all consolidated companies. The consolidated financial statements for the years ended December 31, 2016, 2015 and 2014 include the following direct and indirect subsidiaries, joint ventures and joint operations, as well as the exclusive funds, as follows:

FS-9

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(\* They are Dormant Companies, therefore they do not appear in the note 10.a, where is disclosed business information under the equity method and classified as available for sale.

• **Events in 2016:**

(1) Company terminated;

(2) New corporate name of Mineração Nacional;

(3) Company sold to Can-Pack, as note 4;

(4) New corporate name of Congonhas Minérios S.A.;

(5) Control acquisition, as note 3.2;

(6) Company was incorporated by indirect subsidiary CSN Mining GmbH;

(7) New corporate name of Namisa Handel GmbH;

(8) New corporate name of Namisa Asia Limited;

(9) Company constituted;

FS-10

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- **Exclusive funds**

| <b>Exclusive funds</b>                              | <b>Equity Interests (%)</b> |                   | <b>Core business</b> |
|---|-----------------------------|-------------------|----------------------|
|   | <b>12/31/2016</b>           | <b>12/31/2015</b> |                      |
| <b>Direct interest: full consolidation</b>          |                             |                   |                      |
| Diplic II - Private credit balanced mutual fund     | 100.00                      |                   | Investment fund      |
| Caixa Vértice - Private credit balanced mutual fund | 100.00                      | 100.00            | Investment fund      |
| VR1 – Private Credit balanced mutual fund           | 100.00                      | 100.00            | Investment fund      |
| Diplic - Private credit balanced mutual fund (1)    |                             | 100.00            | Investment fund      |
| BB Steel – Private Credit balanced mutual fund (1)  |                             | 100.00            | Investment fund      |

(1) Multimarket investment fund fully redeemed.

In preparing the consolidated financial statements, we have adopted the following consolidation procedures:

- **Transactions between subsidiaries, associates, joint ventures and joint operations**

Unrealized gains on transactions with subsidiaries, joint ventures and associates are eliminated to the extent of CSN's equity interests in the related entity by the consolidation process. Unrealized losses are eliminated in the same manner as unrealized gains, although only to the extent that there are not indications of impairment. The Company eliminates the effect on profit or loss of transactions carried out with joint ventures and, as a result, reclassifies part of the equity in results of joint ventures to financial costs, cost of sales and income tax and social contribution.

The base date to the financial statements of the subsidiaries and joint ventures is the same as of the Company, and their accounting policies are also in line with the policies adopted by the CSN.

## **Subsidiaries**

Subsidiaries are all entities (including special purpose entities) which financial and operating policies can be conducted by the Company and when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to use its power to affect its returns. The existence and effect of potential voting rights that are actually exercisable or convertible are taken into consideration when assessing whether the Company controls another entity. Subsidiaries are fully consolidated from the date when the control is transferred to the Company and are deconsolidated from the date when such control ceases.

### **Joint ventures and joint operations**

Joint arrangements are all entities over which the Company has joint control with one or more other parties. The investments in joint arrangements are classified as joint operations or joint ventures depending on the contractual rights and obligations of each investor.

Joint operations are accounted for in the financial statements in order to represent the Company's contractual rights and obligations. Therefore, the assets, liabilities, revenues and expenses related to its interests in joint operations are accounted for individually in the financial statements.

Joint ventures are accounted for under the equity method and are not consolidated.

The Company eliminates the effect on profit or loss of transactions carried out with joint ventures and, as a result, eliminates part of the equity in results of joint ventures to financial costs, cost of sales, net sales and income tax and social contribution.

### **Associates**

Associates are all entities over which the Company has significant influence but not control, generally through a shareholding percentage from 20% up to 50% of the voting rights. Investments in associates are accounted for under the equity method and are initially recognized at cost.



- **Transactions and non-controlling interests**

The Company treats transactions with non-controlling interests as transactions with owners of the Company. For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of subsidiary net assets is recorded in shareholders' equity. Gains and losses on disposals to non-controlling interests are also recognized directly in shareholders' equity.

When the Company no longer holds control, any retained interest in the entity is remeasured to its fair value, with the change in the carrying amount recognized in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest in an associate, joint venture or financial asset. In addition, any amounts previously recognized in other comprehensive income in respect of that entity are accounted for as if the Company had disposed of the related assets or liabilities. This may mean that amounts previously recognized in other comprehensive income are reclassified to profit or loss.

## **2.c) Foreign currencies**

### **i. Functional and presentation currency**

Items included in the financial statements are related to each one of the Company's subsidiaries are measured using the currency of the primary economic environment in which the subsidiary operates ("functional currency"). The consolidated financial statements are presented in Brazilian Reals (R\$), which is the Company's functional currency and the Group's presentation currency.

### **ii. Transactions and balances**

Transactions in foreign currencies are translated into the functional currency using the exchange rates in effect at the dates of the transactions or valuations when their values are remeasured. Foreign exchange gains and losses resulting from the settlement of those transactions and from the translation at exchange rates in effect as of December 31, 2016 related to monetary assets and liabilities denominated in foreign currencies are recognized in the income statement, except when they are recognized in shareholders' equity as a result of foreign operation characterized as foreign investment.

The balances of assets and liabilities are translated by exchange rates prevailing at the end of the reporting period. As of December 31, 2016, US\$1 is equal to R\$3.2591 (R\$3.9048 at December 31, 2015) and €1 is equal to R\$3.4384 (R\$4.2504 at December 31, 2015), according to the rates obtained from Central Bank of Brazil website.

All other foreign exchange gains and losses, including foreign exchange gains and losses related to borrowings and cash and cash equivalents, are presented in the income statement as finance income or costs.

Changes in the fair value of monetary securities denominated in foreign currency, classified as available-for-sale, are segregated into exchange differences related to the amortized cost of the security and other changes in the carrying amount of the security. Exchange differences related to amortized cost are recognized in profit or loss, and other changes in the carrying amount are recognized in shareholders' equity.

Exchange differences on non-monetary financial assets and liabilities classified as measured at fair value through profit or loss are recognized in profit or loss as part of the gain or loss on the fair value. Exchange differences on investments classified as available-for-sale are included in comprehensive income in shareholders' equity.

### **iii. Group companies**

The results and financial position of all the Group's entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- The assets and liabilities of each balance sheet presented are translated by exchange rate at the end of the reporting period;

- The income and expenses of each income statement are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates at the transaction dates, in which case income and expenses are translated at the rate in effect at the transaction dates);
- All resulting exchange differences are recognized as a separate component in other comprehensive income; and
- Gains and losses accumulated in shareholders' equity are included in the income statement when the foreign operation is partially disposed or sold.

On consolidation, exchange differences resulting from the translation of monetary items with characteristics of net investment in foreign operations are recognized in shareholders' equity. When a foreign operation is partly disposed of or sold, exchange differences previously recorded into other comprehensive income are recognized in the income statement as part of the gain or loss on sale.

## **2.d) Cash and cash equivalents**

Cash and cash equivalents include cash on hand, in bank accounts and other short-term highly liquid investments redeemable within 90 days from the end of the reporting period, readily convertible into a known amount of cash and subject to an insignificant risk of change in value. Bank certificates of deposit and government securities that do not meet the above criteria are not considered cash equivalents and are classified as financial investments, according to note 6.

## **2.e) Trade receivables**

Trade receivables are initially recognized at fair value, including the related taxes and expenses. Foreign currency-denominated trade receivables are adjusted at the exchange rate in effect at the end of the reporting period. The allowance for estimated losses on doubtful debts were recognized in an amount considered sufficient to cover any losses. Management's assessment takes into consideration the customer's history and financial position, as well as the opinion of their legal counsel regarding the collection of these receivables for recognizing the allowance for estimated losses.

## **2.f) Inventories**

Inventories are carried at the lower of cost and net realizable value. Cost is determined using the weighted average cost method on the acquisition of raw materials. The costs of finished goods and work in process comprise raw materials, labor and other direct costs (based on the normal production capacity). Net realizable value represents the estimated selling price in the normal course of business, less estimated costs of completion and costs necessary to make the sale. The allowance for estimated losses on slow-moving or obsolete inventories are recognized when considered necessary.

Stockpiled ore inventories are accounted for as processed when removed from the mine. The cost of finished goods comprises all direct costs necessary to transform stockpiled inventories into finished goods.

## **2.g) Investments**

Investments in subsidiaries, joint ventures and associates are accounted for under the equity method of accounting and are initially recognized at cost. The gains or losses are recognized in profit or loss as operating income (or expenses). In the case of foreign exchange differences arising on translating foreign investments that have a functional currency different from the Company's, changes in investments due exclusively to foreign exchange differences, as well as adjustments to pension plans and available-for-sale investments that impact the subsidiaries' shareholders' equity, are recognized in line item "Cumulative translation adjustments", in the Company's shareholders' equity, and are only recognized in profit or loss when the investment is disposed or written off due to impairment loss. Other investments are recognized at cost or fair value.

When necessary, the accounting policies of subsidiaries, joint ventures and associates are changed to ensure consistency with the policies adopted by the Company.

## **2h) Business combination**

The acquisition method is used to account for on each business combination conducted by the Company. The payment obligation transferred by acquiring an entity is measured by the fair value of the assets transferred, liabilities incurred and equity instruments issued by the Company. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement, where applicable. Acquisition-related costs are recognized in profit or loss for the year, as incurred. Identifiable assets acquired and liabilities assumed in a business combination are initially measured at their fair values at the acquisition date.

## **2.i) Property, plant and equipment**

Property, plant and equipment are carried at cost of acquisition, formation or construction, less accumulated depreciation or depletion and any impairment loss. Depreciation is calculated under the straight-line method based on the remaining economic useful economic lives of assets, as mentioned in note 11. The depletion of mines is calculated based on the quantity of ore mined. Land is not depreciated since their useful life is considered indefinite. However, if the tangible assets are mine-specific, that is, used in the mining activity, they are depreciated over the shorter between the normal useful lives of such assets and the useful life of the mine. The Company recognizes in the carrying amount of property, plant and equipment the cost of replacement and consequently reducing the carrying amount of the part that is replaced if it is probable that future economic benefits embodied therein will revert to the Company, and if the cost of the asset can be reliably measured. All other disbursements are expensed as incurred. Borrowing costs related to funds obtained for construction in progress are capitalized until these projects are completed.

If some components of property, plant and equipment have different useful lives, these components are accounted for in separate line items of property, plant and equipment.

Gains and losses on disposal are determined by comparing the sale value less the residual value and are recognized in 'Other operating income (expenses)'.

Exploration expenditures are recognized as expenses until the viability of mining activities is established, after this period the subsequent development costs are capitalized. Exploration and valuation expenditures include:

- Research and analysis of historical data related to area exploration;
- Topographic, geological, geochemical and geophysical studies;
- Determine the mineral asset's volume and quality/grade;
- Examine and test the extraction processes and methods;
- Topographic surveys of transportation and infrastructure needs;
- Market and financial studies;

The development costs from new mineral deposits or from capacity expansion in mine operations are capitalized and amortized using the produced (extracted) units method based on the probable and proven ore quantities. The development stage includes:

- Drillings to define the ore body;
- Access and draining plans;
- Advance removal of overburden (top soil and waste material removed prior to initial mining of the ore body) and waste material (non-economic material that is intermingled with the ore body).

Stripping costs (the costs associated with the removal of overburden and other waste materials) incurred during the development of a mine, before production commences, they are capitalized as part of the depreciable cost of developing the property. Such costs are subsequently amortized over the useful life of the mine based on proven and probable reserves.

Stripping costs in the production phase are included in the cost of the inventory produced, except when a specific extraction campaign is made to access deeper deposits of than where ore body is located. In these cases, costs are capitalized and taken to noncurrent assets when the mineral ore deposit is extracted and are amortized over the useful life of the ore body.

The Company holds spare parts that will be used to replace parts of property, plant and equipment and that used to increase the asset's useful life when it exceeds 12 months. These spare parts are classified in property, plant and equipment and not in inventories.

## 2.j) Intangible assets

Intangible assets comprise assets acquired from third parties, including through business combinations.

These assets are recognized at cost of acquisition or formation, less amortization calculated on a straight-line basis method based on the estimated periods of exploration or recovery

Mineral rights acquired are classified in line item "other assets" in intangible assets.

Intangible assets with indefinite useful lives and goodwill based on expected future profitability are not amortized.

- **Goodwill**

Goodwill represents the positive difference between the amount paid and/or payable for the acquisition of a business and the net fair values of the acquiree's assets and liabilities. Goodwill on acquisitions of subsidiaries is recognized as intangible assets in the consolidated financial statements. The gain on purchase is recognized as a gain in profit for the period at the acquisition date. Goodwill is annually tested for impairment. Impairment losses on goodwill are not reversed. Gains and losses on the disposal of a Cash-Generating Unit (CGU) include the carrying amount of goodwill related to the CGU sold.

Goodwill is allocated to CGUs for impairment testing purposes. The allocation is made to CGUs of CGUs that are expected to benefit from the business combination in which the goodwill arose, and recalling that unit is not greater than the operating segment.

- **Software**

Software licenses purchased are capitalized based on the costs incurred to purchase the software and make it ready for use. These costs are amortized on a straight-line basis over the estimated useful lives

from one to five years.

## **2.k) Impairment of non-financial assets**

Assets with infinite useful lives, such as goodwill, are not subject to amortization and are annually tested for impairment. Assets subject to amortization and/or depreciation, such as property, plant and equipment, are tested for impairment whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. An impairment loss is recognized by the exciding value of an asset's recoverable amount. The recoverable amount is the higher of the fair value of an asset less costs to sell and its value in use. For impairment testing purposes, assets are grouped at their lowest levels for which there are separately identifiable cash flows (Cash Generating Units, or CGUs). Non-financial assets, except for goodwill, are subsequently reviewed for possible reversal of the impairment at the reporting date.

## **2.l) Employee benefits**

### **i. Employee benefits**

#### **Defined contribution plans**

A defined contribution plan is as a post-employment benefit plan whereby an entity pays fixed contributions to a separate entity (pension fund) and will not have any legal or constructive obligation to pay additional amounts. Obligations for contributions to defined contribution pension plans are recognized as employee benefit expenses in the periods during which services are provided by employees. Contributions paid in advance are recognized for an asset since it is agreed that either cash reimbursement or future reduction on payables will flow back to CSN. Contributions to a defined contribution plan that is expected to mature twelve (12) months after the end of the period in which the employee provides services are discounted to their present values.

#### **Defined benefit plans**

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Company's net obligation regarding defined pension benefit plans is calculated individually for each plan by estimating the value of the future benefit that the employees accrue as return for services provided in the



current period and in prior periods; such benefit is discounted to its present value. The discount rate is the yield presented at the end of the reporting period for top line debt securities whose maturity dates approximate the terms and conditions of the Company's obligations and which are denominated in the same currency as the one in which it is expected that the benefits will be paid. The calculation is made annually by a qualified actuary using the projected unit credit method. When the calculation results in a benefit for the Company, the asset to be recognized is limited to the total amount of any unrecognized costs of past services and the present value of the economic benefits available in the form of future plan reimbursements or reduction in future contributions to the plan. The present value of economic benefits is calculated taking into account the funding requirements applicable to the Company's plans. An economic benefit is available to the Company if it is realizable during the life of the plan or upon settlement of the plan's liabilities.

FS-15

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The Company and some of its subsidiaries offered a postretirement healthcare benefit to its employees. The right to these benefits is usually contingent to their remaining in employment until the retirement age and the completion of the minimum length of service. The expected costs of these benefits are accumulated during the employment period, and are calculated using the same accounting method used for defined benefit pension plans. These obligations are annually valued by qualified independent actuaries.

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. When benefits became vesting rights, all actuarial gains or losses are immediately recognized in profit or loss.

The Company recognizes all actuarial gains and losses resulting from defined benefit plans immediately in other comprehensive income. If the plan is extinguished, actuarial gains and losses are recognized in profit or loss.

## **ii. Profit sharing and bonus**

Employee profit sharing and executives' variable compensation are linked to the achievement of operating and financial targets. The Company recognizes a liability and an expense substantially allocated to production cost and, where applicable, to general and administrative expenses when such goals are met.

## **2.m) Provisions**

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that the Company will be required to settle the obligation and it has reliable cost estimation.

The amount recognized as a provision is the best value estimation required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material). Success fees are accrued to the extent that they make it probable that disbursements will occur. When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is probable that reimbursement will be received and that

the amount of the receivable can be measured reliably.

## **2.n) Concessions**

The Company has governmental concessions to provide the following types of services: railway and port transportation managed by Company's subsidiaries and joint-ventures. The concessions included in the consolidated financial statements are related to the rail network in the Northeast area, managed by the subsidiary FTL, the container terminal in Itaguaí, managed by the subsidiary Sepetiba Tecon and the port terminal TECAR for exporting ore and importing coal, which is managed by the subsidiary CSN Mineração.

The Company's concession contracts are not within the scope of the international interpretative standard IFRIC 12, considering that the grantor (refers to the government) has effectively no control over what, to whom and at what price the services will be provided by the dealer (refers to the private part) to the customers.

In essence, all concession contracts has operating leasing characteristics. Therefore, the accounting should follow the accounting rules applicable to leases. Our concession agreements provide for the use of a specific asset for an agreed period of time, but without any transfer of ownership to the Company or option to buy these assets after the completion of these contracts. Payments made under operating leases are recognized in the income statement on a straight line basis over the period of the contracts.

FS-16

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There are assets related to our concessions which are subject to reversion to the grantor at the end of the concession agreement.

The residual carrying amounts of these assets on December 31, 2016 are listed below with an indication of their classification in our financial statements:

| <b>Concession</b>                              | <b>Net book value<br/>(R\$)</b> | <b>Classification in balance sheet</b> |
|--|---------------------------------|--|
| Sepetiba Tecon S.A. (TECON)                    | 239million                      | Fixed assets<br>intangible: Software   |
| Tecar  | 1,514 million                   | Fixed assets<br>intangible: Software   |
| Ferrovias Transnordestina Logística S.A. (FTL) | 280 million                     | Fixed assets                           |
| Transnordestina Logística S.A. (TLSA)          | 7,413 million (1)               | Investment                             |
| MRS Logística S.A. (MRS)                       | 3,576 million (2)               | Investment                             |

(1) The amount of fixed and intangible assets is recognized in TLISA's financial statements. We recognize our interest in the net assets of TLISA under the equity method and our investment balance in TLISA as of December 31, 2016 was R\$1,491,358.

(2) The amount of fixed and intangible assets is recognized in MRS's financial statements. We recognize our interest in the net assets of MRS by the de equity method and our investment balance consolidated in MRS as of December 31, 2016 was R\$ 1,711,558.

## **2.o) Share capital**

Common shares are classified in shareholders' equity.

Incremental costs directly attributable to the issue of new shares or options are shown in shareholders' equity as a deduction to the amount received, net of taxes.

When any Company of the Group buys Company shares (treasury shares), the amount paid, including any directly additional costs (net of income tax), is deducted from shareholders' equity attributable to owners of the Company until the shares are canceled or sold. When these shares are subsequently sold, any amount received, net of any directly attributable additional transaction costs and the related income tax and social contribution effects, is included in shareholders' equity attributable to owners of the Company.

## **2.p) Revenue recognition**

Operating revenue from the sale of goods in the normal course of business is measured at the fair value of the receivables. Revenue is recognized when there is convincing evidence that the most significant risks and rewards of ownership of goods have been transferred to the buyer, it is probable that future economic benefits will flow to the entity, the associated costs and possible return of goods can be reliably estimated, there is no continued involvement with the goods sold, and the amount of the operating revenue can be reliably measured. If it is probable that discounts will be granted and the value thereof can be reliably measured, then the discount is recognized as a reduction of the operating revenue as sales are recognized. Revenue from services provided is recognized as it is realized.

The appropriate timing for transfer of risks and rewards varies depending on the individual terms and conditions of the sales contract. For international sales, this timing depends on the type of term of the contract term.

FS-17

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## **2.q) Financial income and financial expenses**

Financial income includes interest income from funds invested (except available-for-sale financial assets), dividend income not accounted for under the equity method, gains on disposal of available-for-sale financial assets, changes in the fair value of financial assets measured at fair value through profit or loss, and gains on derivative instruments that are recognized in profit or loss. Interest income is recognized in profit or loss under the effective interest method. Dividend income is recognized in profit or loss when the Company's right to receive payment has been established. Distributions received from investees accounted for under the equity method reduce the investment value.

Financial expenses comprise interest expenses on borrowings, dividends on preferred shares classified as liabilities, losses on the fair value of financial instruments measured at fair value through profit or loss, impairment losses recognized in financial assets, and losses on derivative instruments that are recognized in profit or loss. Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are measured through profit or loss under the effective interest method.

Foreign exchange gains and losses are reported on a net basis.

## **2.r) Income tax and social contribution**

Current income tax and social contribution are calculated based on the tax laws enacted by the end of the reporting period, including in the countries where the Group entities operate and generate taxable profit. Management periodically assesses the positions taken in the tax calculations with respect to situations where applicable tax regulations are open to interpretations. The Group recognizes provisions where appropriate, based on the estimated payments to tax authorities. The income tax and social contribution expense comprises current and deferred taxes. Current and deferred taxes are recognized in profit or loss unless they are related to business combinations or items recognized directly in shareholders' equity.

Current tax is the expected tax payable or receivable on taxable profit or loss for the year at tax rates that have been enacted by the end of the reporting period and any adjustment to taxes payable in relation to prior years.

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax is not recognized for the following temporary differences: initial recognition of assets and

liabilities in a transaction that is not a business combination and does not affect either the accounting or taxable profit or loss, and differences associated with investments in subsidiaries and joint ventures when it is probable that they will not reverse in the foreseeable future.

Moreover, a deferred tax liability is not recognized for taxable temporary differences resulting from the initial recognition of goodwill. The deferred tax is measured at the rates that are expected to be applied on temporary differences when they reverse, based on the laws enacted by the end of the reporting period.

Current income tax and social contribution are carried at their net amounts by the taxpayer, in liabilities when there are amounts payable or in assets when prepaid amounts exceed the total amount due at the end of the reporting period.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority on the same entity subject to taxation.

A deferred income tax and social contribution asset is recognized for all tax losses, tax credits, and deductible temporary differences to the extent that it is probable that taxable profits will be available against which those tax losses, tax credits, and deductible temporary differences can be utilized. Annually, the Company reviews and verifies the existence of future taxable income and a provision for loss is recognized when the realization of these credits is not likely.

FS-18

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## **2.s) Earnings/(Loss) per share**

Basic earnings/loss per share are calculated by means of the profit/loss for the year attributable to owners of the Group and the weighted average number of common shares outstanding in the related period. Diluted earnings/loss per share are calculated by means of the average number of shares outstanding, adjusted by instruments potentially convertible into shares, with diluting effect, in the reported periods. The Group does not have any instruments potentially convertible into shares and, accordingly, diluted earnings/loss per share are equal to basic earnings/loss per share.

## **2.t) Environmental and restoration costs**

The Company recognizes a provision for the recovery costs and fines when a loss is probable and the amounts of the related costs can be reliably measured. Generally, the period when the provision for recovery is recognized coincides with the end of a feasibility study or the commitment to adopt a formal action plan.

Expenses related to compliance with environmental regulations are charged to profit or loss or capitalized, as appropriate. Capitalization is considered appropriate when the expenses refer to items that will continue to benefit the Group and that are basically related to the acquisition and installation of equipment to control and/or prevent pollution.

## **2.u) Research and development**

Research expenditures are recognized as expenses when incurred. Expenditures on project developments (related to the design and testing stages of new or improved products) are recognized as intangible assets when it is probable that projects will be successful, based on their commercial and technological feasibility, and only when the cost can be reliably measured. When capitalized, development expenditures are amortized from the start of a product commercial production, on a straight-line basis and over the period of the expected benefit.

## **2.v) Financial instruments**

### **i) Financial assets**



Financial assets are classified into the following categories: measured at fair value through profit or loss, loans and receivables, held-to-maturity and available-for-sale. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets at the time of initial recognition.

- **Financial assets measured at fair value through profit or loss**

Financial assets at fair value through profit or loss are financial assets held for active and frequent trading. Derivatives are also categorized as held for trading and, accordingly, are classified in this category unless they have been designed as cash flow hedging instruments. Assets in this category are classified in current assets.

- **Loans and receivables**

This category includes loans and receivables that are non-derivative financial assets with fixed or determinable payments not quoted in an active market. They are included in current assets, except those with maturity of more than 12 months after the end of the reporting period (which are classified as non-current assets). Loans and receivables include loans to associates, trade receivables, other receivables and cash and cash equivalents, except short-term investments. Cash and cash equivalents are recognized at fair value. Loans and receivables are carried at amortized cost using the effective interest method.

- **Held-to-maturity assets**

These are basically financial assets acquired with the positive intent and ability to hold to maturity. Held-to-maturity investments are initially recognized at their value plus any directly attributable transaction costs. Subsequent to initial recognition, they are measured at amortized cost using the effective interest method, less any impairment loss.

- **Available-for-sale financial assets**

These are non-derivative financial assets, designated as available-for-sale, that are not classified in any other category. They are included in non-current assets when they are strategic investments for the Company, unless Management intends to dispose of the investment within 12 months from the end of the reporting period. Available-for-sale financial assets are recognized at fair value.

- **Recognition and measurement**

Regular purchases and sales of financial assets are recognized at the trading date - the date on which the Company undertakes to buy or sell the asset. Investments are initially recognized at their fair value, plus transaction costs for all financial assets not classified as at fair value through profit or loss. Financial assets at fair value through profit or loss are initially recognized at their fair value and the transaction costs are charged to the income statement. Financial assets are derecognized when the rights to receive cash flows from the investments have expired or have been transferred, in the latter case, provided that the Company has transferred significantly all risks and rewards of ownership. Available-for-sale financial assets and financial assets measured at fair value through profit or loss are subsequently carried at fair value. Loans and receivables are carried at amortized cost using the effective interest method.

Gains or losses resulting from changes in the fair value of financial assets measured at fair value through profit or loss are presented in the income statement under "finance income" in the period in which they arise. Dividend income from financial assets at fair value through profit or loss is recognized in the income statement as part of other finance income when the Company's right to receive the dividends has been established.

The changes in the fair value of available-for-sale financial assets are recognized as follows: (i) the effects of foreign exchange differences and the changes in the fair value of the investment in the investee's capital are recognized directly in the Company's shareholders' equity, in "Other comprehensive income" and; (ii) the effects of foreign exchange differences and the changes in the option's fair value are recognized in the income statement for the year.

Interest on available-for-sale securities, calculated under the effective interest method, is recognized in the income statement as part of other income. Dividends from available-for-sale equity instruments, such as shares, are recognized in the income statement as part of other finance income when the Company's right to receive payments has been established.

The fair values of publicly quoted investments are based on current purchase prices. If the market for a financial asset (and for instruments not listed on a stock exchange) is not active, the Company establishes the fair value by using valuation techniques. These techniques include the use of recent transactions contracted with third parties, reference to other instruments that are substantially similar, analysis of discounted cash flows, and option pricing models that make maximum use of market inputs and relies as little as possible on entity-specific inputs.

**ii) Impairment of financial assets**

The Company evaluates in the end of each reporting period whether there is an evidence that a financial asset or a group of financial assets are impaired.

- **Assets measured at amortized cost**

A financial asset or a group of financial assets is impaired and impairment losses are incurred only if there are evidences of impairment as a result of one or more events that occurred after the initial recognition of the asset (a "loss event"), such loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets and the future cash flow estimation can be reliably calculated..

The criteria used by CSN to determine whether there are evidences of impairment loss includes:

- significant financial weakness related to the issuer or counterparty;

FS-20

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- a breach of contract, such as default or delinquency at interest or principal payments;
  
- the issuer, for economic or legal reasons relating to the borrower's financial weakness, grants to the borrower a concession that the lender would not otherwise consider;
  
- it becomes probable that the borrower will incur in bankruptcy or other financial reorganization;
  
- the disappearance of an active market for the related financial asset because of financial weakness; or
  
- observable data indicating that there is a measurable decrease in the estimated future cash flows from a portfolio of financial assets since the initial recognition of such assets, although the decrease cannot yet be identified with the individual financial assets in the portfolio, including:
  - Adverse changes in the payment status of borrowers in the portfolio;
  - National or local economic conditions that correlate with defaults on the assets in the portfolio.

The amount of the loss is measured by the difference between the carrying amount of the asset and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the original effective interest rate of the financial asset. The carrying amount of the asset is reduced and the amount of the loss is recognized in the income statement. If a loan or held-to-maturity investment has a variable interest rate, the discount rate to measure an impairment loss is the current effective interest rate determined pursuant to the contract. As a practical expedient, the Company may measure impairment on the basis of an instrument's fair value using an observable market price.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized (such as an improvement in the debtor's credit rating), the previously recognized impairment loss is reversed and recognized in the consolidated income statement.

- **Assets classified as available-for-sale**

In the case of equity securities classified as available-for-sale, a significant or prolonged decline at the fair value of an investment in an equity instrument below of its cost is also an 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 as well as the financial health and short-term business prospects for the investee, including factors such as: industry and segment performance, changes in technology and operating/financial cash flows. If any of the impairment evidences is observed for 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 equity to profit or loss. Impairment losses recognized in the income statement as available-for-sale instruments are not reversed.

CSN tested for impairment its available-for-sale investment in Usiminas shares, see note 14 – Financial Instruments.

### **iii) Financial liabilities**

Financial liabilities are classified into categories “measured at fair value through profit or loss” and “other financial liabilities”. Management determines the classification of its financial liabilities at the time of initial recognition.

- **Financial liabilities measured at fair value through profit or loss**

Financial liabilities measured at fair value through profit or loss are financial liabilities held for trading or designated as at fair value through profit or loss.

Derivatives are also classified as trading securities, and thereby are classified so, unless they have been designated as effective hedging instruments.

- **Other financial liabilities**

Other financial liabilities are measured at amortized cost using the effective interest method. The Company holds the following non-derivative financial liabilities: borrowings, financing and debentures as well as trade payables.

- **Offsetting of financial instruments**

Financial assets and financial liabilities are offset and the net amount is reported in the balance sheet when there is a legally enforceable right to set off the recognized amounts as well as the intention to either settle them on a net basis or to realize the asset and settle the liability simultaneously.

**iv) Derivative instruments and hedging activities**

- **Derivatives measured at fair value through profit or loss**

Derivatives are initially recognized at fair value on the date when a derivative contract is entered, thereafter they are subsequently measured at their fair value and any changes are recognized as "Finance income (costs)" in the income statement.

- **Cash flow Hedge**

The Company adopts hedge accounting and designates certain financial liabilities as a hedging instrument of a foreign exchange risk associated to the cash flows from forecast, highly probable exports (cash flow hedges).

At the inception of the transaction, the Company documents the relationships between the hedging instruments and the hedged items, as well as its risk management objectives and strategy for undertaking hedging transactions. The Company also documents its assessment, both at the inception of the hedge and on an ongoing basis, of whether the hedging transactions are highly effective in offsetting changes in the cash flows of the hedged items.

The effective portion of the changes in the fair value of financial liabilities designated and qualifying as cash flow hedge is recognized on equity, in line item "Hedge accounting". Any gain or loss related to the ineffective portion is recognized immediately in other operational income(expenses), if applicable.

The amounts accumulated in equity are reclassified to the income statement in the periods when the forecast exports affect profit or loss.

When a hedging instrument expires, is settled in advance or the hedging relationship no longer meets the hedge accounting criteria, or even when Management decides to discontinue hedge accounting, all cumulative gains or losses recorded in equity at the time remain recognized in equity and, from that moment, the exchange variations are recorded in the financial income (expenses). When the forecast transaction is completed, the gain or loss is reclassified to profit or loss. When a forecast transaction is no longer expected to take place, the cumulative gain or loss previously recognized in shareholders' equity is immediately transferred to the income statement, in line item "Other operating income (expenses)".

The movements in the hedge amounts designated as exporting cash flow hedges are stated in note 14 – Financial instruments.

- **Net investment hedge**

For net investment hedge, the Company designates part of its financial liabilities as hedging instruments of its overseas investments with functional currencies other than the Group's functional currency, according to IAS 39. Such relationship occurs since the maturity of the financial liabilities is related to the exchange variation of the investments in the amounts required for the effective relationship.

At the inception of the hedge relationship, the Company documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking out various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Company documents whether the hedging instrument is highly effective in offsetting changes in fair values of the hedged item.

The effective portion of changes in the fair value of financial liabilities that are designated and qualify as a net investment hedge is recognized in equity in line item "Hedge Accounting". The gain or loss relating to the ineffective portion is recognized in finance income (costs), when applicable. If at some point of the hedging relationship the balance of the debt is higher than the balance of the investment, the exchange variation on the excess debt will be reclassified to the statement of profit or loss as a Other operating income/(expenses) (ineffectiveness of the hedge).

The amounts accumulated in equity will be realized in the statement of profit or loss upon disposal or partial disposal of the foreign operation.

The changes in the amounts of hedge denominated as Net investment hedge are shown in note 14 – Financial Instruments.

## **2.w) Segment information**

An operating segment is a component of the Group committed to the business activities from which it can obtain revenues and incur expenses, including revenues and expenses related to transactions with any other components of the Group. All the operating results of operating segments are reviewed regularly by the Executive Officers of CSN to enable decisions regarding resources to be allocated to the segment and assessment of its performance. The Company maintains distinct financial information for the distinct segments.

## **2.x) Government grants**

Government grants are not recognized until there is reasonable assurance that the Company will comply to the conditions attaching to them and assurance that the grants will be received, so then they will be recognized in profit or loss on a systematic basis over the periods in which the Company recognizes as expenses the related costs that the grants are intended to compensate.

The Company has state tax incentives in the North and Northeast regions, which are recognized in profit or loss as a reduction of the corresponding costs, expenses and taxes.

## **2.y) Noncurrent assets held for sale and discontinued operations**



Noncurrent assets and groups of assets are classified as held for sale if their carrying amount is recovered mainly through a sale transaction and not through continued use.

The criteria for classification of items held for sale are considered to be met only when the sale is highly probable and the asset or group of assets is available for immediate sale.

Assets and liabilities classified as held for sale are presented separately as current items in the balance sheet.

Classification as a discontinued operation occurs through disposal, or when the transaction meets the criteria to be classified as held for sale if this occurs earlier. A discontinued operation is a component of a Group business which comprises operations and cash flows that may be clearly distinct from the rest of the Group and represent a separate business line or geographical area of operations.

The result of discontinued operations is presented in a single amount in the income statement, including the total income after income tax of these operations, less any impairment loss.

## **2.z) New standards and interpretations issued and not yet adopted**

The following standards and interpretations have been issued, but have not yet effective and were not early adopted by the Group for the year ended December 31, 2016:

| <b>Standard</b> | <b>Main items introduced by the standard</b>   | <b>Effective date</b> |
|-----------------|--|-----------------------|
|                 | IFRS 9 retains but simplifies the combined measurement model and establishes two main measurement categories of financial assets: amortized cost and fair value. The classification basis depends on the entity business model and the characteristics of the financial asset's contractual cash flow. |                       |

IFRS 9 – Financial Instruments

IFRS 9 retains most of IAS 39 requirements for financial liabilities. The main change refers to those cases where the fair value of the financial liabilities must be segregated so that the fair value portion related to the entities credit risk is recognized in “other comprehensive income” and not in profit or loss for the period.

January 1, 2018

The standard introduces an expected credit loss model for the measurement of the impairment of financial assets. However, it is no longer necessary for a credit event to have occurred before a credit loss is recognized. Finally, IFRS 9 introduces a new hedge accounting model that is designed to be more closely aligned with how entities undertake risk management activities when hedging financial and non-financial risk exposures.

The requirements for derecognition of financial assets and liabilities under IFRS 9 are carried forward from IAS 39.

We are currently evaluating whether we will engage a third party specialist to assist us in the process of reviewing our financial assets and financial liabilities, including our available-for-sale securities classified as other comprehensive income, as well as our hedge accounting designated to our foreseeable future export transactions. As this process is still ongoing we are currently unable to anticipate the impacts we will have upon the application of IFRS 9 as from January 1<sup>st</sup>, 2018. However, we might measure certain financial assets at fair value through other comprehensive income since from some of those assets we collect contractual cash flows and also sell them to other parties. Even in those transactions, we don't expect significant changes in our results since they usually are short-term transactions when they occur. Additionally, we might have an impact in our expected credit losses upon transition to IFRS 9 until we adjust some of our credit granting policies to avoid losses to our results.

IFRS15 – Revenue from Contracts with Customers

This new standard introduces the principles that an entity will apply to determine the revenue measurement and when such revenue shall be recognized.

January 1, 2018

IFRS 15 replaces IAS 11 – *Construction Contracts*, IAS 18 - *Revenue* and related interpretations.

We are currently in the process of assessing the impacts that IFRS 15 application will produce in the manner we recognize revenues from our different operations as well as in our internal controls environment. For the assessment of the impacts we are identifying the contracts we have with our customers and reviewing the enforceable rights and obligations that exist in order to apply IFRS 15 accordingly. We are reviewing the performance obligations those contracts have and determine whether there are distinct goods and services that shall be accounted for separately. Also, as part of the assessment, we are reviewing the transaction prices to identify fixed or variable considerations and whether there are effects of the time value of money to be adjusted and, accordingly, allocate the transaction price to each performance obligation of the contracts. If a stand-alone selling price is not observable, we will determine a methodology to estimate it. In certain cases, the transaction price may include a discount or a variable amount of consideration that relates entirely to a part of the contract. The amount of revenue to be recognized will be the amount allocated to the satisfied performance obligation. A performance obligation may be satisfied at a point in time or over time. For performance obligations that will be satisfied over time, we will apply a methodology to recognize revenue over time by selecting an appropriate method for measuring our progress towards complete satisfaction of that performance obligation.

We are currently evaluating whether we will engage a third party specialist to assist us in the process of reviewing our revenues streams and the related contracts with customers. As this process is still ongoing we are currently unable to anticipate the impacts we will have when accounting for our revenues as from January 1<sup>st</sup>, 2018. However, we don't expect significant changes from our current revenue recognition process and amounts. Eventually, we may have a segregated amount of revenue attributed to storage services derived from customers that might request us to bill and hold the delivery until second order.

#### IFRS16 - Leases

This new standard defines the principles for recognition, measurement, presentation and disclosure of leases and introduces a single model for the accounting of leases in the balance sheet for the lessees. A lessee recognizes a

January 1, 2019

right-of-use asset that represents his obligation to make lease payments. Optional exemptions are available for short- term leases and low-value items. For lessors, accounting treatment remains practically the same, with the classification of leases as operating leases or financial leases, and accounting for these two types of lease differently. IFRS 16 replaces existing lease standards, including IAS 17 – *Leasing Operations* and IFRIC 4, SIC 5 and SIC 27 – *Complementary Aspects of Leasing Operations*.

Currently, we have not initiated the assessment of the IFRS 16 effects since we are fully focused on the assessments for the initial application of IFRS 9 and IFRS 15 described above. As soon as we have concluded them, we will redirect our focus to assess the impacts we will have in our financial position and results of operations upon the application of IFRS 16. However, we can anticipate that we do not expect any material impact, if any, from the application of IFRS 16.

|   |  |                 |
|---|--|-----------------|
| Initiative disclosure<br>(amendments to IAS 27)                                 | The amendments require additional disclosures that allow users of financial statements to understand and evaluate changes in liabilities arising from financing activities, both changes in cash flow and other changes.   | January 1, 2017 |
| Recognition of deferred tax assets for unrealized losses (amendments to IAS 12) | The amendments clarify the accounting of deferred tax assets for unrealized losses on debt instruments measured at fair value.   | January 1, 2017 |
| IFRIC 22 – Foreign Currency Transaction and Advance Consideration               | The Interpretation covers foreign currency transactions (or part of them) when an entity recognizes a non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration before the entity recognizes the related asset, expense or income (or part of it). | January 1, 2018 |
| IFRIC 23 – Uncertainty over Income Tax Treatments                               | Can be unclear how tax law applies to a particular transaction or circumstance. This interpretation complements the IAS 12 – Income Tax, clarify how to reflect the effects of uncertainty over income tax treatments.   | January 1, 2019 |

FS-23

The early adoption of these IFRS is not allowed for entities that disclose their financial statements in accordance with accounting practices adopted in Brazil.

There are no other standards and interpretations issued and not yet adopted that may have, in Management's opinion, a material impact on the profit or loss or equity disclosed by the Company.

### **2.a.a) Restatement of the Financial Statements of December 31, 2015**

Subsequent to the issuance of the Company's financial statements for the year ended December 31, 2015, the Company identified the following errors relating to the accounting for (a) the acquisition of Namisa described in Note 3, and (b) the impairment of deferred income tax and social contribution credits:

#### **(a) Business Combination of Namisa**

FS-24

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- **Pre-existing relationship**

The Company erroneously included prepaid amounts in the estimate of the gain on the liquidation of a pre-existing relationship between the CSN and Namisa relating to operating agreements of ROM (run of mine) and Port Services. After excluding the prepaid amounts in the fair value estimate, the gain previously recorded of R\$1,554 million became a loss of R\$1,225 million.

- **Discount rate used to calculate fair values**

The Company determined that the discount rate used to calculate the fair value of Namisa and CSN Mineração, did not reflect discount rates of companies with iron ore mining activities. The adjustment to the rates reduced the discount rate from 14.36% to 13.83% for Namisa and from 13,91% to 13,19% for CSN Mineração, increasing the discounted cash flow of CSN Mineração to R\$3.6 billion and to R\$1.2 billion in Namisa. This increase in the discounted cash flow of Namisa generated an additional gain of R\$48 million when compared to the amounts originally recorded.

- **Estimate of seaborne freight in the discounted cash flow estimates**

The prices of seaborne freight considered in the calculation of the fair values of CSN Mineração and Namisa were over-estimated and did not follow the historical curves when compared to the curves of iron ore prices, and did not consider market prices practiced by CSN. Accordingly, a new valuation was prepared to determine the fair value of Namisa and CSN Mineração considering a corrected curve of seaborne freight prices. The change in the curve of seaborne freight increased the fair value of CSN Mineração in R\$8 billion and of Namisa in R\$3.5 billion. The increase in the fair value of Namisa generated an additional gain of R\$1,991 million when compared to the consolidated financial statements originally filed.

- **Estimate of rail freight in the discounted cash flow estimates**

The fair value of NAMISA's excluded assets prepared at the time the transaction included an error in the estimate of rail freight. A new calculation was prepared to consider the correct estimates for the rail freight costs in the determination of fair value of the excluded assets, resulting in an increase in the consolidated net income for the year of R\$235 million and shareholders' equity of R\$244 million.

- **Recognition of deferred tax liabilities relating to the spun-off assets**

The Company failed to recognize deferred tax liabilities relating to the spun-off assets (Fernandinho, Cayman and Pedras Pretas). Since these assets were transferred to Minérios Nacional, which is not the acquirer, the purchase accounting adjustments do not have a tax basis.

- **Adjustments to the participation of non-controlling shareholders of CSN Mineração.**

A change in the interpretation of the IFRS was identified by reassessing the events triggered by the inquiries made by the *Securities Exchange Commission* (SEC) on the accounting procedure for the presentation of the non-controlling interests of the subsidiary CSN Mineração in the Company's consolidated financial statements.

The interpretative aspect of the IFRS application in this operation stems from the moment the gains are recorded and how these gains are allocated between the shareholders of CSN Mineração at the acquisition date. In the previous accounting procedure, even with the entire transaction being carried out on a single date, the corporate actions complied with a specific order in which the Company based its interpretation for the allocation of the gains to controlling and non-controlling shareholders. Within this context, CSN Mineração would have admitted the Asian Consortium in its shareholder base before the acquisition of control of Namisa, the reason why the gains with the business combination were allocated to the shareholders considering their respective equity interests in the capital of CSN Mineração, (87.52% to CSN and 12.48% to the Asian Consortium). Pursuant to the new interpretation of the events that took place on November 30, 2015, the gains from the business combination were recorded in CSN

FS-25

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Mineração before the admission of the Asian Consortium in CSN Mineração' shareholder base and, for this reason, these gains are being exclusively allocated to the shareholder CSN.

The following table summarizes the change of the approach:

- **Other Adjustments**

The calculations of fair values also corrected the effects related to a non-inclusion in the discounted cash flow arising from the impact of the CFEM / TFRM contributions (Financial Compensation for the Exploration of Mineral Resources/Control, Monitoring and Inspection Fee for Research, Mining, Exploration and Exploitation of Mining Resources Activities), as well as adjustments related to the final balance used as the basis to evaluate the book value of Namisa assets, resulting in a loss in the consolidated net income for the year of R\$71 million and shareholders' equity of R\$59 million.

The acquisition method applied in the business combination that had resulted in net gains of R\$2.9 billion in net income, were changed to net gains of R\$3.0 billion after the review of the transaction, and that can be shown as follows:

|  | <b>CSN Consolidated (In R\$ Million)</b> |                 |
|--|--|-----------------|
|  | <b>As Originally</b>                     | <b>Restated</b> |
|  | <b>Reported</b>                          |                 |
| Gain in the fair value remeasurement of the 60% ownership previously held in NAMISA. | 2,791                                    | 3,790           |
| Gain (loss) in the liquidation of the pre-existing relationship                      | 622                                      | (493)           |
| Income tax and social contribution   | (528)                                    | (265)           |
| <b>Net gains</b>   | <b>2,885</b>                             | <b>3,032</b>    |



As a result of aforementioned review of aspects of the business combination, which identified errors in the determination of the fair value of Namisa, the Company verified that the purchase price considered for accounting purposes, previously of R\$ 13.4 billion, became R\$ 17.5 billion as disclosed in the table below:

(In R\$ Million)

| Item  | Comments   | As Originally | Restated      |
|---|--|---------------|---------------|
|   |  | Reported      |               |
| Assets acquired   | Cash payment in the amount of USD707MM.  | 2,727         | 2,727         |
| Liabilities assumed   | Financial adjustment of working capital and debt.  | 6             | 6             |
| Equity instruments issued   | CSN Mineração issued equity instruments that were given to the Asian Consortium.                                   | 2,619         | 4,034         |
| Fair value of the interest previously held by the acquirer entity before the business combination | CSN Mineração held 60% of Namisa's shares post-split before the business combination and remeasured at fair value. | 8,023         | 10,700        |
| <b>Purchase price considered for the business combination</b>                                     |  | <b>13,375</b> | <b>17,467</b> |

FS-26

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On the other hand, upon the implementation of the transaction, CSN had recognized a gain of R\$1.9 billion directly in the net equity as a change in the ownership percentage, that has been adjusted to R\$2.9 billion, as disclosed below:

|   | R\$ (Million)             |              |
|---|---------------------------|--------------|
|   | As Originally<br>Reported | Restated     |
| <b>Events</b>   |                           |              |
| Asian Consortium's contribution to CSN Mineração                    | 2,619                     | 4,034        |
| <b>CSN's interest - 87.52% (1)</b>                                  | <b>2,292</b>              | <b>3,531</b> |
| Acquisition by CSN of 4.16%   | 2,727                     | 2,727        |
| Financial adjustment of working capital and debt (closing)          |                           | 6            |
| <b>Assets acquired and liabilities assumed</b>                      | <b>2,727</b>              | <b>2,733</b> |
| <b>Asian Consortium's interest - 12.48% (2)</b>                     | <b>(340)</b>              | <b>(341)</b> |
| <b>Adjustment in the ownership interest variation % (3)</b>         | <b>-</b>                  | <b>(274)</b> |
| <b>Other effects arisen from the corporate restructuring (4)</b>    | <b>(7)</b>                | <b>27</b>    |
| <b>Total gain of the transaction between shareholders (1+2+3+4)</b> | <b>1,945</b>              | <b>2,943</b> |

**(b) Estimated losses of deferred income tax and social contribution credits**

The Company is restating the balances of deferred income tax and social contribution credits of its financial statements for the year ended December 31, 2015 after the technical review, during 2016, of the negative and positive aspects that supported their maintenance. The main change in the decision for this restatement is the fact that the exclusion of the sale of certain non-core assets from credit recovery studies, reducing the future taxable base of the projections, together with the greater weight to be given to the observable evidence of tax losses existing in the last years, according to the interpretation given by accounting standard IAS 12. As established in the standard, in the case of existence of recent history of successive losses or losses alternated in several years, this becomes the primary evidence for assessing the maintenance or recording of tax credits to offset against future taxable profits, with the study of projections of these profits remaining as a source of secondary evidences and with lower weight in the assessment.

Thus, the Company elected to maintain in assets an amount of tax losses and negative basis of social contribution equivalent to 30% of the deferred income tax liability balance, an amount that will be used as the deferred tax liability becomes current income tax payable. With this, the total credits arising from temporary differences were accrued and maintained in inventory of credits in the Company's tax books for future utilization. This system of maintenance of tax credits equivalent to 30% of the deferred income tax liability will remain until a new history of taxable profits is formed and the studies of projections of future profits become again primary evidences for the recording of tax credits, when the Company will recognize the temporary differences and higher amounts of tax losses and negative basis of social contribution losses that will be utilized to offset income tax payable arising from future taxable profits.

Based on the study mentioned above, the Company recognized in 2015 an estimated loss on deferred income tax and social contribution credits of R\$3,173 million, of which R\$2,949 million recognized in profit or loss and R\$224 million in equity, as detailed in Note 16(c) Deferred IR/CS Recovery Test.

FS-27

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**2.a.b) Restatement of accounting balances of 2015**

(i) The Company reclassified the result of Cia Metalic Nordeste in the amount of R\$1,911 in discontinued operations, for comparative purposes, as detailed in note 4.

(ii) Additionally, it reclassified the cash flow hedge result from 2015 from the financial income caption to other operating revenues in the amount of R \$ 11,439, taking into account the classification used in 2016.

**2.a.c) The impacts in the financial statements can be shown as follows:**

These adjustments did not impact the balances of January 01, 2015 and therefore the third column of the balance sheet is not being presented.

- Statement of Income**

|   | <b>As Originally<br/>Reported</b> | <b>Adjustments</b> | <b>Consolidated<br/>December 31, 2015<br/>Restated</b> |
|---|-----------------------------------|--------------------|--|
| <b>Net revenues</b>                                     | <b>15,331,852</b>                 | <b>(70,155)</b>    | <b>15,261,697</b>                                      |
| <b>Cost of goods sold</b>                               | <b>(11,799,758)</b>               | <b>59,657</b>      | <b>(11,740,101)</b>                                    |
| <b>Operating Income (Expenses)</b>                      | <b>1,645,531</b>                  | <b>(116,624)</b>   | <b>1,528,907</b>                                       |
| Selling expenses  | (1,436,000)                       | 5,811              | (1,430,189)  |
| General and administrative expenses                     | (470,368)                         | 36                 | (470.332)  |
| Equity results  | 1,160,348                         | (76)               | 1,160,272  |
| Other operating income (expenses), net                  | 2,391,551                         | (122,395)          | 2,269,156  |
| <b>Income before financial results</b>                  | <b>5,177,625</b>                  | <b>(127,122)</b>   | <b>5,050,503</b>                                       |
| Financial results, net                                  | (3,373,050)                       | 7,888              | (3,365,162)  |
| <b>Income before income tax and social contribution</b> | <b>1,804,575</b>                  | <b>(119,234)</b>   | <b>1,685,341</b>                                       |
| Income tax and social contribution                      | (188,624)                         | (2,714,592)        | (2,903,216)  |
| Profit (loss) from continued operations                 | <b>1,615,951</b>                  | <b>(2,833,826)</b> | <b>(1,217,875)</b>                                     |

|  |                  |                    |                    |
|--|------------------|--------------------|--------------------|
| Profit (loss) from discontinued operations |                  | <b>1,911</b>       | <b>1,911</b>       |
| <b>Net income for the year</b>             | <b>1,615,951</b> | <b>(2,831,915)</b> | <b>(1,215,964)</b> |
| <b>Attributed to:</b>                      |                  |                    |                    |
| Controlling interest                       | 1,257,896        | (2,472,018)        | (1,214,122)        |
| Non-controlling interest                   | 358,055          | (359,897)          | (1,842)            |
|  | <b>1,615,951</b> | <b>(2,831,915)</b> | <b>(1,215,964)</b> |

- Balance Sheet**

|   |                               | <b>Consolidated</b>      |                   |
|---|-------------------------------|--------------------------|-------------------|
|   |                               | <b>December 31, 2015</b> |                   |
|   | <b>As Originally Reported</b> | <b>Adjustments</b>       | <b>Restated</b>   |
| <b><u>ASSETS</u></b>                            |                               |                          |                   |
| <b>Current</b>                                  | <b>16,430,691</b>             |                          | <b>16,430,691</b> |
| <b>Non-current</b>                              | <b>32,219,283</b>             | <b>(1,310,565)</b>       | <b>30,908,718</b> |
| Long-term receivables                           | 4,890,948                     | (3,228,961)              | 1,661,987         |
| Investments                                     | 3,998,227                     | 12                       | 3,998,239         |
| Property, plant and equipment                   | 17,871,599                    | (45,373)                 | 17,826,226        |
| Intangibles                                     | 5,458,509                     | 1,963,757                | 7,422,266         |
| <b>TOTAL ASSETS</b>                             | <b>48,649,974</b>             | <b>(1,310,565)</b>       | <b>47,339,409</b> |
| <b><u>LIABILITIES</u></b>                       |                               |                          |                   |
| <b>Current</b>                                  | <b>5,325,571</b>              | <b>(243,372)</b>         | <b>5,082,199</b>  |
| <b>Non-current</b>                              | <b>34,588,740</b>             | <b>577,182</b>           | <b>35,165,922</b> |
| <b>Shareholders' equity</b>                     | <b>8,735,663</b>              | <b>(1,644,375)</b>       | <b>7,091,288</b>  |
| Common stock                                    | 4,540,000                     |                          | 4,540,000         |
| Capital reserves                                | 30                            |                          | 30                |
| Earnings reserves                               | 2,104,804                     | (2,104,804)              |                   |
| Other comprehensive income                      | 1,019,913                     | 770,780                  | 1,790,693         |
| Accumulated losses                              |                               | (367,214)                | (367,214)         |
| Non-controlling interest                        | 1,070,916                     | 56,863                   | 1,127,779         |
| <b>TOTAL LIABILITIES + SHAREHOLDERS' EQUITY</b> | <b>48,649,974</b>             | <b>(1,310,565)</b>       | <b>47,339,409</b> |

- Statement of Changes in Equity

|   |                      |  |                     |   |                                  |                                  | Consolidated<br>12/31/2015 |
|---|----------------------|--|---------------------|---|----------------------------------|----------------------------------|----------------------------|
|   | Paid - in<br>Capital | Capital<br>reserve,<br>granted<br>options<br>and<br>treasury<br>shares | Earnings<br>reserve | Retained<br>earnings<br>(accumulated<br>losses) | Other<br>comprehensive<br>income | Non-<br>controlling<br>interests | Shareholders'<br>equity    |
| <b>As Originally<br/>reported at<br/>12/31/2015</b> | <b>4,540,000</b>     | <b>30</b>  | <b>2,104,804</b>    |   | <b>1,019,913</b>                 | <b>1,070,916</b>                 | <b>8,735,663</b>           |
| Reclassifications                                   |                      |  | (2,104,804)         | (367,214)                                       | 770,780                          | 56,863                           | (1,644,375)                |
| <b>Restated at<br/>12/31/2015</b>                   | <b>4,540,000</b>     | <b>30</b>  |                     | <b>(367,214)</b>                                | <b>1,790,693</b>                 | <b>1,127,779</b>                 | <b>7,091,288</b>           |

- Statement of Cash Flows

The adjustments mentioned above did not impact the total cash flows from operating, investing or financing activities, just impacting the loss for the year and the changes in assets and liabilities, all within operating activities.

- Earnings/(loss) per share

|                                   | As Originally Reported | Adjustments        | 12/31/2015<br>Restated |
|-----------------------------------|------------------------|--------------------|------------------------|
| <b>(Loss) profit for the year</b> |                        |                    |                        |
| Continued operations              | 1,615,951              | (2,833,826)        | (1,217,875)            |
| Discontinued operations           |                        | 1,911              | 1,911                  |
|                                   | <b>1,615,951</b>       | <b>(2,831,915)</b> | <b>(1,215,964)</b>     |

|                                   |                |                  |                  |
|-----------------------------------|----------------|------------------|------------------|
| Weighted average number of shares | 1,357,150,010  |                  | 1,357,150,010    |
| <b>Basic and diluted EPS</b>      |                |                  |                  |
| Continued operations              | 1.19069        | (2.08807)        | (0.89738)        |
| Discontinued operations           |                | 0.00141          | 0.00141          |
|                                   | <b>1.19069</b> | <b>(2.08666)</b> | <b>(0.89597)</b> |

### 3. BUSINESS COMBINATION

#### 3.1 Acquisition of control of Nacional Minérios S.A – Namisa

##### 3.1.1 Object of transaction

On December 11, 2014, the Board of Directors of CSN approved the establishment of a strategic alliance with an Asian Consortium comprised by the companies ITOCHU Corporation, JFE Steel Corporation, POSCO, Kobe Steel Ltd., Nisshin Steel Co, Ltd. and China Steel Corp. (“Asian Consortium”).

The transaction consisted of a business combination through which CSN acquired a controlling interest in Namisa. Namisa was previously jointly controlled by CSN and the Asian Consortium. This acquisition was completed by corporate restructuring of CSN and the Asian Consortium, whereby (i) Namisa was contributed to CSN Mineração, a mining subsidiary of CSN (ii) certain assets of Namisa were spun-off from Namisa to another wholly owned subsidiary of CSN, (iii) CSN contributed its other mining assets to CSN Mineração, and (iv) the Asian Consortium received an interest in CSN Mineração.

After the corporate restructuring, CSN Mineração became the holder of the commercial establishment related to CSN’s iron ore mine Casa de Pedra, CSN’s 60% equity interest in Namisa, 8.63% direct interest in MRS, as well as the right to manage and operate the solid bulk terminal of TECAR in Itaguaí Port (“TECAR”). The assets that were spun-off from Namisa were Fernandinho, Cayman and Pedras Pretas

The transaction was concluded by the signing of a shareholder’s agreement by the shareholders of CSN Mineração, on November 30, 2015.

Following are the details of the steps that were carried out in order to conclude the transaction:

- Payment of dividends by Namisa before the closing of the transaction, amounting to US\$1.4 billion (equivalent to R\$5.4 billion);
- Disproportionate spin-off of certain assets of NAMISA, such as the mining rights of Fernandinho, Cayman and Pedras Pretas, as well as the net assets of Fernandinho, for subsequent contribution to Minérios Nacional, a wholly-owned subsidiary of CSN. After the split, CSN held 59.76% in NAMISA;
- Restructuring of CSN Mineração through the contribution, by CSN, of the assets and liabilities related to Casa de Pedra, the rights to operate TECAR, 59.76% of Namisa's shares post-split of the excluded assets, 8.63% of MRS' shares, and US\$850 million in debt (equivalent to R\$3,370 million, as presented in note 3);
- Liquidation of the pre-existing agreements with Namisa for supply of high-silicon and low-silicon content ROM (Run of Mine), port services and ore beneficiation;
- Acquisition, by CSN Mineração, of the Namisa shares post-split of the excluded assets held by the Asian Consortium, resulting in the merger of NAMISA into CSN Mineração;
- Signing of a shareholders' agreement ("Shareholders' Agreement") by the shareholders of CSN Mineração;
- Payment by CSN of US\$680 million relating to the acquisition of 4% of the shares held by the Asian Consortium in CSN Mineração and additional US\$ 27 million relating to the acquisition of 0.16% of the shares held by the Asian Consortium in CSN Mineração, amounting to US\$ 707 million (equivalent to R\$2,7 billion);

The following charts show the corporate structure before and after the transaction:





The transaction also includes an earn-out mechanism by which, in the event of a qualified liquidity event occurred under certain valuation parameters and within a defined time period after the closing of the transaction, the Asian Consortium's equity interest in CSN Mineração could be diluted, at CSN's sole discretion, from 12.48% to 8.71%. This mechanism was considered as a contingent asset and consequently, had no accounting impacts on the Company's financial statements.

Part of the iron ore produced by CSN Mineração will be sold to the members of the Asian Consortium and to CSN. Such rights are reflected in long-term supply agreements entered into on November 30, 2015, which terms were negotiated on usual market conditions. CSN also ensured the use of TECAR for import of raw materials through a long-term agreement.

### **3.1.2 Application of IFRS3 to the transaction**

Prior to the transaction, Namisa was managed by means of a shareholders' agreement, through which the Asian Consortium had sufficient vetoes that grant it substantial management rights over the operations. With respect to accounting, Namisa was classified as a joint venture within the scope of IFRS 10 and 11. CSN recorded its 60% equity interest in Namisa according to the equity method.

As mentioned above, CSN carried out a corporate restructuring involving the transfer of its mining operations, rights to operate the port terminal TECAR and equity interests in Namisa and MRS to CSN Mineração. This step of the transaction was carried out based on the book value of the assets, since there was no change control over the assets and equity stakes transferred. Upon conclusion of the corporate restructuring, CSN Mineração became the controlled company of CSN that concentrates the group's mining businesses.

As a result of the transaction, CSN began to control Namisa through its control over CSN Mineração and the Asian Consortium holds only protective rights in relation to the assets resulting from the business combination, which is usual in this type of transaction.

Accordingly, since there has been a change of control over Namisa's assets, IFRS3 should be applied. Based on the criteria of IFRS 3, the acquisition date for accounting purposes was November 30, 2015, the date as from the new Shareholders' Agreement of CSN Mineração became effective.

### 3.1.3 Application of the acquisition method

Under IFRS3, the acquisition method shall be applied for recording the transaction. The method consists of the following:

- a) determining the purchase price;
- b) recognizing the amount of the goodwill based on expectations for future profitability; and
- c) recognizing a gain or loss on pre-existing relations that should be settled with the business combination.

These three steps are applicable to the acquisition of control over Namisa, and they are detailed as follows.

#### a) Determination of the purchase price

According to IFRS3, the purchase price is determined by the sum of the assets acquired, liabilities assumed, equity instruments issued, non-controlling equity interests and the fair value of any equity interest held prior to the transaction. The following table summarizes the price considered for accounting purposes:

| Item                      | Comments   | R\$ (Million) | Reference |
|---------------------------|--|---------------|-----------|
| Assets acquired           | Cash payment in the amount of USD707MM.  | 2,727         | (i)       |
| Liabilities assumed       | Financial adjustment of working capital and debt.                                | 6             | (i)       |
| Equity instruments issued | CSN Mineração issued equity instruments that were given to the Asian Consortium. | 4,034         | (ii)      |

|   |  |               |       |
|---|--|---------------|-------|
| Fair value of the interest previously held by the acquirer entity before the business combination | CSN Mineração held 60% of Namisa's shares post-split before the business combination and remeasured at fair value. | 10,700        | (iii) |
| <b>Purchase price considered for the business combination</b>                                     |  | <b>17,467</b> |       |

#### **i. Assets acquired and liabilities assumed**

Subsequent to the capital increase, the transaction included a cash payment made for the acquisition of 4.16% of CSN Mineração's shares held by the Asian Consortium in the amount of US\$707 million, equivalent to R\$2,727million as of November 30, 2015 and a liability amounting to R\$6 million to be paid in the 1<sup>st</sup> quarter of 2016.

Even though such payment was carried out by CSN for the acquisition of 4.16% of CSN Mineração's shares, its economic effect was recorded at CSN Mineração as an integral part of the consideration received due to the control acquisition over Namisa, according to the guidelines provided by IFRS3.

#### **ii. Equity instruments issued – Shares of CSN Mineração**

CSN Mineração performed the primary issue of shares to the Asian Consortium represented 12.48% of its total capital. Pursuant to IFRS3, such shares were appraised at fair value as of the acquisition date.

Such appraisal was performed using the discounted cash flow method, considering the business plans approved by the shareholders of CSN Mineração. The main premises of such appraisal and the results thereof are described in the table below:

| <b>Assumptions</b>   | <b>Data</b>                 |
|--|-----------------------------|
| Iron Ore Volumes   | 60Mt/year in the long-term  |
| Price - Platts CFR China 62% Fe  | Range from US\$56 to US\$75 |
| Discount rate  | Nominal WACC of 13.19%      |
|  | <b>R\$ (Million)</b>        |
| Fair Value on November 30, 2015 (equity value)                                 | R\$ 32,334                  |
| Quantity of shares held by the Asian Consortium after the acquisition of 4.16% | <b>12.48%</b>               |
| <b>Fair Value attributed to the equity instruments issued</b>                  | <b>R\$ 4,034</b>            |

The fair value of CSN Mineração was calculated by independent appraisers who issued a new assessment report considering the adjustments identified by the Company's management.

### iii. Equity interest in Namisa held prior to the acquisition

CSN Mineração held Namisa's shares immediately prior to the transaction regarding the acquisition of control be concluded. Such shares were appraised under the equity method.

According to item 41 of IFRS3, such shares are part of the consideration transferred and should be measured at their fair value as of the acquisition date. A gain or loss resulting from the difference between the fair value and the carrying amount recorded immediately prior to the acquisition should be recognized in profit or loss for the year.

The appraisal of the fair value of Namisa was conducted according to the discounted cash flow method, considering the business plans in effect prior to the transaction and approved by the shareholders. NAMISA's fair value remeasurement contained certain assets that were split to CSN and immediately after were transferred to a CSN's wholly-owned subsidiary called Minérios Nacional, whilst NAMISA's main assets were acquired by CSN Mineração. The main assumptions of such appraisal and the results thereof are shown in the following table:

| <b>Assumptions</b>   | <b>Data</b>                    |                   |               |
|--|--------------------------------|-------------------|---------------|
| Iron Ore Volumes   | 40Mt/year in the long-term     |                   |               |
| Price - Platts CFR China 62% Fe                                  | Range from US\$56 to US\$75    |                   |               |
| Discount rate  | Nominal WACC of 13.83%         |                   |               |
|  | <b>Excluded</b>                | <b>Namisa</b>     | <b>Total</b>  |
|  | <b>Assets</b>                  | <b>Post-Split</b> |               |
| % ownership (a)  | 60%                            | 59.76%            |               |
|  | <b>R\$(Million) - Restated</b> |                   |               |
| Fair Value of the assets (b)                                     | <b>2,184</b>                   | <b>15,649</b>     | <b>17,833</b> |
| Book Value on November 30, 2015 (c )                             | <b>61</b>                      | <b>10,213</b>     | <b>10,274</b> |
| <b>Gain in the fair value remeasurement (b-c) * a</b>            | <b>1,274</b>                   | <b>3,248</b>      | <b>4,522</b>  |
| (-) Elimination of 59.76% from loss in pre-existing relationship |                                | (732)             | (732)         |
| <b>Gain in the fair value remeasurement</b>                      | <b>1,274</b>                   | <b>2,516</b>      | <b>3,790</b>  |

The fair value of CSN Mineração was calculated by independent appraisers who issued a new assessment report considering the adjustments identified by the Company's management.

**b) Goodwill on acquisition of control over Namisa**

According to item 32 of IFRS3, the acquirer shall recognize goodwill based on expectations for future profitability as of the acquisition date, measured by the amount at which the purchase price exceeds the fair value of the assets and liabilities acquired (Purchase Price Allocation – PPA). The transaction generated goodwill of R\$3,197 million, as per the table below:

| Item  | Reference             |              | Elimination relationship pre-existing | R\$ (Million)<br>Shareholders' equity |
|---|-----------------------|--------------|---------------------------------------|---------------------------------------|
| Purchase price considered                                 | Item 3.1.3 (a)        | 17,467       | (10,649)                              | 6,818                                 |
| Fair value of the assets acquired and liabilities assumed | Item 3.1.3 (b)<br>(i) | 14,270       | (10,649)                              | 3,621                                 |
| <b>Goodwill for future profitability expected</b>         |                       | <b>3,197</b> |                                       | <b>3,197</b>                          |

The goodwill based on future profitability expected is recorded under Intangible Assets and, since it does not have a definite useful life, it is not amortized, according to IAS 38. For tax purposes, the deductible amount of that goodwill is R\$842 million. As from 2016, CSN started to perform conducting impairment testing for this asset according to the requirements established by IAS 36.

**(i) Fair value of the assets acquired and liabilities assumed**

The following table shows the fair value allocation breakdown for 100% of the assets acquired and liabilities assumed as of November 30, 2015, calculated on the basis of reports prepared by independent appraisers:

|                                     | Book value   | Fair value adjustments | (-) Write-off of goodwill previously recognized in Namisa | Consolidated (In Million)<br>Total fair value |
|-------------------------------------|--------------|------------------------|---|---|
| <b>Current assets</b>               | <b>1,294</b> |                        |   | <b>1,294</b>                                  |
| Cash and cash equivalents           | 783          |                        |   | 783   |
| Trade accounts receivable           | 253          |                        |   | 253   |
| Prepayment ROM and Port - Congonhas | 114          |                        |   | 114   |
|                                     |              |                        |   | 375   |

|   |                |                |              |                 |
|---|----------------|----------------|--------------|-----------------|
| Other assets                                  | 144            |                |              | 144             |
| <b>Non-current assets</b>                     | <b>10,887</b>  | <b>5,002</b>   | <b>(579)</b> | <b>15,310</b>   |
| Prepayment ROM and Port - Congonhas           | 9,310          | 1,225          |              | 10,535          |
| Other assets                                  | 138            |                |              | 138             |
| MRS interest- 10%                             | 306            | 481            |              | 787             |
| Property, plant and equipment                 | 551            | 111            |              | 662             |
| Intangibles                                   | 582            | 3,185          | (579)        | 3,188           |
| <b>Total assets acquired</b>                  | <b>12,181</b>  | <b>5,002</b>   | <b>(579)</b> | <b>16,604</b>   |
| <b>Current liabilities</b>                    | <b>1,641</b>   |                |              | <b>1,641</b>    |
| Loans and financings                          | 5              |                |              | 5               |
| Suppliers                                     | 29             |                |              | 29              |
| Taxes payable                                 | 297            |                |              | 297             |
| Proposed dividends (US\$ 300 million)         | 1,157          |                |              | 1,157           |
| Other accounts payable                        | 153            |                |              | 153             |
| <b>Non-current liabilities</b>                | <b>266</b>     | <b>625</b>     | <b>(198)</b> | <b>693</b>      |
| Loans and financings                          | 25             |                |              | 25              |
| Provision for contingencies                   | 7              |                |              | 7               |
| Taxes (deferred and in installments)          | 216            | 625            | (198)        | 643             |
| Other accounts payable                        | 18             |                |              | 18              |
| <b>Total liabilities assumed</b>              | <b>1,907</b>   | <b>625</b>     | <b>(198)</b> | <b>2,334</b>    |
| <b>Net equity before Elimination Relation</b> |                |                |              |                 |
| <b>Pre-Existing</b>                           | <b>10,274</b>  | <b>4,377</b>   | <b>(381)</b> | <b>14,270</b>   |
| <b>Elimination Relation Pre-Existing</b>      | <b>(9,424)</b> | <b>(1,225)</b> |              | <b>(10,649)</b> |
| <b>Net equity acquired</b>                    | <b>850</b>     | <b>3,152</b>   | <b>(381)</b> | <b>3,621</b>    |



According to IFRS3, the goodwill based on future profitability expected existing in the Namisa's financial statements, as of the acquisition date, should be written off so that a new goodwill is recognized.

The allocation of the fair value resulted in a gain in the total amount of R\$3,152 million, distributed among the principal assets of Namisa. The following table shows the breakdown of the amounts allocated and a summary of the calculation methodology:

| <b>Assets acquired</b>                                   | <b>Remeasurement method</b>   | <b>Book value</b> | <b>Fair value adjustment</b> | <b>Total fair value</b> |
|--|---|-------------------|------------------------------|-------------------------|
| MRS interest - 10%                                       | Entity's discounted cash flow based on the long-term business plan approved by the shareholders.  | 306               | 481                          | 787                     |
| Property, plant and equipment                            | The amounts of property, plant and equipment were adjusted by the difference between the fair value of the PP&E and their respective net carrying amounts, as per the technical valuation conducted by an independent appraiser for the groups of assets represented by improvements, constructions, vehicles, furniture and fixtures. The useful lives follow the periods disclosed in Note 11.  | 551               | 111                          | 662                     |
| Mining rights - Engenho, Fernandinho and Cayman mines    | The income approach was used based on the excess profitability methodology in multiple periods, due to the possibility of attributing the directly generated cash flow to the asset identified. Under this methodology, the amount of the mining rights is estimated based on their future profitability, discounting all costs and investments that would be necessary for extracting and processing the iron ore to their fair value. These rights will be amortized according to the depletion of the mines. |                   | 3,184                        | 3,184                   |
| Relationship with supplier - iron ore purchase agreement | For the fair value calculation of the contract with Itaminas we used the income approach, comparing the future cash flows generated by operation in two scenarios, through the contract and market conditions.  |                   | 1                            | 1                       |
| Deferred taxes   |   |                   | (625)                        | (625)                   |

857

3,152

4,009

### c) Liquidation of pre-existing relationships between CSN Mineração and Namisa

The IFRS3 determines that the increase or decrease in fair value resulting from an advantage or disadvantage in the transaction between the acquirer and the acquiree should be settled, with recognition of a gain or loss in the income statement of the year as of the transaction date. Such assets or relationships are referred as pre-existing relationship in the context of IFRS3.

A CSN Mineração and Namisa had a pre-existing relationship resulting from long-term agreements for the rendering of port services, supply of ROM iron ore and processing of ore. With the business combination, such agreements were extinct, since CSN's mining activities have now been centralized at CSN Mineração.

The liquidation of the pre-existing relationship generated a loss of R\$1,225 million (R\$493 million after the elimination of CSN Mineração's 60% stake in Namisa), which considered the comparison of discounted cash flows at market prices with the contractual discounted cash flows remaining after the installments prepaid in 2008 when the operating agreements of ROM and Porto were entered into.

#### 3.1.4 Effects reflected in CSN - Transaction between partners recorded in equity

As mentioned above, CSN Mineração was considered the acquirer for the application of IFRS3. As a result, to the completion of the transaction, there was a change in CSN's shareholding in CSN Mineração, which has not represented a loss of control in CSN Mineração by CSN. The Company's participation decreased from 100% to 87.52%. According to IFRS10, this change should be classified as an equity transaction and the resulting gain or loss on the new value of the participation shall be recorded directly in net equity. Due to this percentage variation, a gain of R\$2,943 million was recorded. The table below shows the reconciliation of this amount:

FS-35

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| <b>Events</b>   | <b>R\$ (Million)</b> |
|---|----------------------|
|   | <b>Restated</b>      |
| Asian Consortium's contribution to CSN Mineração - item 3.3 (a)     | 4,034                |
| <b>CSN's interest - 87.52% (1)</b>                                  | <b>3,531</b>         |
| Acquisition by CSN of 4.16%   | 2,727                |
| Financial adjustment of working capital and debt                    | 6                    |
| <b>Transferred assets and liabilities - Item 3.1.3 (a) (i)</b>      | <b>2,733</b>         |
| <b>Asian Consortium's interest - 12.48% (2)</b>                     | <b>(341)</b>         |
| <b>Adjustment in the ownership interest variation % (3)</b>         | <b>(274)</b>         |
| <b>Other effects arisen from the corporate restructuring (4)</b>    | <b>27</b>            |
| <b>Total gain of the transaction between shareholders (1+2+3+4)</b> | <b>2,943</b>         |

### 3.1.5 Summary of the accounting impacts

The following table shows the full impact of the business combination described above in the results and equity of the Company:

| <b>Events</b>  | <b>R\$ (Million) Restated</b> |   |
|--|-------------------------------|---|
|  | <b>P&amp;L</b>                | <b>Accounting effect<br/>Net Equity</b> |
| Gain in the fair value remeasurement of 59.76% interest in Namisa - item 3.1.3 (a) iii           | 2,516                         | 2,516                                   |
| Gain in the fair value remeasurement of 60% interest in the excluded assets - item 3.1.3 (a) iii | 1,274                         | 1,274                                   |
| Gain in the liquidation of pre-existing relationship - item 3.1.3 (c)                            | (493)                         | (493)                                   |
| <b>Gain in the business combination before income tax and social contribution</b>                | <b>3,297</b>                  | <b>3,297</b>                            |
| Deferred income taxes  | (265)                         | (265)                                   |
| Gain in the transaction between shareholders - item 3.1.4  |                               | 2,943                                   |
| <b>Total impact of the business combination</b>  | <b>3,032</b>                  | <b>5,975</b>                            |

**3.1.6 Statement of income for the year – Pro Forma**

The table below presents the pro forma impact on CSN's income statement considering the acquisition at the beginning of the annual reporting period, as required by IFRS 3.

|  | <b>R\$(Million)</b> |
|--|---------------------|
|  | <b>12/31/2015</b>   |
| <b>Net Revenue</b>   | <b>15,824</b>       |
| Cost of sales and services                                     | (12,108)            |
| <b>Gross profit</b>  | <b>3,716</b>        |
| <b>Operating income (expenses)</b>                             | <b>273</b>          |
| <b>(Loss)/profit before income tax and social contribution</b> | <b>3,989</b>        |
| Finance income (costs), net                                    | (1,383)             |
| <b>(Loss)/profit before income tax and social cotribution</b>  | <b>2,606</b>        |
| Income tax and social contribution                             | (3,051)             |
| <b>Profit for the year, net</b>                                | <b>(445)</b>        |
| <b>Attributable to:</b>  |                     |
| Owners of the company  | (443)               |
| Non-controlling interests                                      | (2)                 |
| FS-36  |                     |

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### 3.2 CONTROL AQUISITION OF CGPAR CONSTRUÇÃO PESADA S.A. (“CGPAR”)

On September 30, 2016, CSN acquired 50% shares of CGPAR previously held by GPA Construção Pesada e Mineração Ltda., increasing its participation to 100%. The total amount paid in consideration for the shares was R\$ 1.00 (One Real).

The consideration paid reflects an agreement to solve a legal dispute involving corporate and commercial issues, as well as to release dividends declared in previous fiscal years.

The method consists of:

#### 3.2.1 Determination of the purchase price

| Description   | R\$           | Ref. |
|---|---------------|------|
| Fair value of the equity interest held by the acquiring company in CGPAR immediately prior to the combination | 49,726        | (i)  |
| Consideration paid in CGPAR acquisition   | -             | (ii) |
| <b>Purchase price considered for the business combination</b>   | <b>49,726</b> |      |

(i) Fair value of 50% stake in CGPAR held immediately before the acquisition.

(ii) Amount related to the consideration paid for the acquiring company R\$ 1.00 (One real).

CSN held 50% shares of CGPAR immediately before the conclusion of the control acquisition, this investment was measured by the equity method.

According to the item 41 of the IFRS 3, those shares are part of the consideration paid and must be measured by their fair value on the acquisition date. The accounting rule determines that a gain or loss must be recorded resulting from the difference between the fair value and the book value before the transaction. Therefore, the CGPAR valuation by its fair value was calculated based in the discounted cash flow method, considering the business plan valid until the transaction date.

The results are presented in the following table:

| <b>Assumptions</b>   | <b>R\$</b>    |
|--|---------------|
| Fair value as of September 30, 2016 (equity value)   | 99,452        |
| Fair value attributed to 50% equity interest prior acquisition (a)   | 49,726        |
| <b><u>Accounting Balances</u></b>  |               |
| The equity interest prior acquisition (a) on September 30, 2016  | 8,608         |
| <b>Gain in the valuation of the 50% interest by the fair value of the equity interest prior to the acquisition (a)-(b) (Note 25)</b> | <b>41,118</b> |

### **3.2.2 Gain from a bargain purchase generated from the control acquisition of CGPAR**

According to the item 32 of the IFRS 3, the acquirer must recognize the goodwill generated from the future economic benefits or a gain from a bargain purchase at the acquisition date. The fair value of assets acquired and liabilities assumed (Purchase Price Allocation - PPA) exceeded the purchase price and the transaction generated a gain from a bargain purchase of R\$ 25,378 million.

FS-37

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|                           | <b>Carrying<br/>amounts</b> | <b>Fair value<br/>adjustments</b> | <b>09/30/2016<br/>Total fair<br/>value</b> |
|---------------------------|-----------------------------|-----------------------------------|--|
| Total assets acquired     | 49,726                      |                                   | 49,726                                     |
| Total liabilities assumed | 75,104                      | (22,609) (a)                      | 52,495                                     |
|                           | <b>25,378</b>               | <b>(22,609)</b>                   | <b>2,769</b>                               |

a) Includes deferred taxes on fair value adjustment and gain on bargain purchase.

In the following table its presented the fair value allocation for 100% of assets acquired and liabilities assumed on September 30, 2016.

|                                   | <b>Carrying<br/>amounts</b> | <b>Fair value<br/>adjustments</b> | <b>09/30/2016<br/>Total fair<br/>value</b> |
|-----------------------------------|-----------------------------|-----------------------------------|--|
| <b>Current assets</b>             |                             |                                   |  |
| Cash and cash equivalents         | 1,881                       |                                   | 1,881                                      |
| Trade receivables                 | 27,101                      |                                   | 27,101                                     |
| Other assets                      | 4,394                       |                                   | 4,394                                      |
| Property, plant and equipment (*) | 16,281                      | 57,889 (a)                        | 74,170                                     |
| Intangible assets                 | 93                          |                                   | 93   |
| <b>Total assets acquired</b>      | <b>49,750</b>               | <b>57,889</b>                     | <b>107,639</b>                             |
| <b>Current liabilities</b>        |                             |                                   |  |
| Borrowings and financing          | 15,089                      |                                   | 15,089                                     |
| Trade payables                    | 3,234                       |                                   | 3,234                                      |
| Payroll and related taxes         | 8,889                       |                                   | 8,889                                      |
| Taxes payable                     | 2,154                       |                                   | 2,154                                      |
| Other payables                    | 3,169                       |                                   | 3,169                                      |
| Deferred taxes                    |                             | 22,609 (b)                        | 22,609                                     |
|                                   |                             |                                   | 383  |

|                                  |               |               |               |
|----------------------------------|---------------|---------------|---------------|
| <b>Total liabilities assumed</b> | <b>32,535</b> | <b>22,609</b> | <b>55,144</b> |
| <b>Total equity acquired</b>     | <b>17,215</b> | <b>35,280</b> | <b>52,495</b> |

a) Refers to fixed assets adjusted for the difference between the restated amount of the fixed assets and their respective net book value.

b) Refers to deferred taxes.

### 3.2.3 Result of the accounting impacts on the acquisition of control of CGPAR

The table below shows the total impact of the business combination previously described on the Company's profit or loss and equity:

| <b>Events</b>   | <b>R\$ (Millions)</b>                     |
|---|---|
|   | <b>Restated<br/>Accounting<br/>effect</b> |
| Gain on the valuation of the 50% interest in CGPAR at fair value - item 3.2.1 | 41,118                                    |
| Gain with advantageous purchase - item 3.2.2                                  | 25,378                                    |
| <b>Gain on business combination before IR / CSLL (note 25)</b>                | <b>66,496</b>                             |
| Deferred income tax and social contribution on deferred income (Note 16)      | (22,609)                                  |
| <b>Total impact of business combination</b>                                   | <b>43,887</b>                             |



#### 4. NON CURRENT ASSETS HELD FOR SALE AND RESULTS FROM DISCONTINUED OPERATIONS

On August 23, 2016, the Company concluded a negotiation and signed a contract with Can-Pack S.A. to sell its 100% shares of the subsidiary Cia. Metalic do Nordeste (“Metalic”), which is a player in the metallic packaging business. The agreement has been previously disclosed in the statement of material fact. The transaction value amounted to US\$ 98 million.

Due to the above facts, based on IFRS 5 (Non-current assets held for sale and discontinued operations), the Company reclassified the investment and the result of September 30, 2016 to the group of Assets Held for Sale in the amount of R\$123,290 and accumulated results for 2016 and 2015 in the amount of R\$ (6,786) and R\$1,911, respectively, to the discontinued operations group to meet IFRS requirements and allow better comparability, see note 10.b.

On November 30, 2016, the sale of Metalic was completed, generating a gain as shown below:

|                                      |                |
|--------------------------------------|----------------|
| Receipt by sale investment           | 372,537        |
| Equity on November 30, 2016          | (120,514)      |
| <b>Gain on transaction (note 25)</b> | <b>252,023</b> |

The results and cash flows of discontinued operations are summarized below:

##### 4.a) Results from discontinued operations

|                            | 11/30/2016    | 12/31/2015     | 12/31/2014     |
|----------------------------|---------------|----------------|----------------|
| <b>Net revenue</b>         | <b>91,669</b> | <b>119,926</b> | <b>100,082</b> |
| Cost of sales and services | (89,188)      | (101,699)      | (87,205)       |
| <b>Gross profit</b>        | <b>2,481</b>  | <b>18,227</b>  | <b>12,877</b>  |
| Selling expenses           | (3,921)       | (5,811)        | (3,971)        |

|  |                 |              |                |
|--|-----------------|--------------|----------------|
| General and administrative expenses                            | (6,171)         | (7,654)      | (9,314)        |
| Other operating expenses, net                                  | (4,346)         | (4,575)      | (608)          |
| <b>Profit/ (loss) before financial result</b>                  | <b>(11,957)</b> | <b>187</b>   | <b>(1,016)</b> |
| Finance income (costs), net                                    | 2,396           | 3,512        | 5,959          |
| <b>Profit/(loss) before income tax and social contribution</b> | <b>(9,561)</b>  | <b>3,699</b> | <b>4,943</b>   |
| Income tax and social contribution                             |                 | (1,788)      | 6,663          |
| <b>(Loss) profit for the year, net</b>                         | <b>(9,561)</b>  | <b>1,911</b> | <b>11,606</b>  |

#### 4.b) Cash flow from discontinued operations

|  | 09/30/2016    | 12/31/2015      | 12/31/2014    |
|--|---------------|-----------------|---------------|
| Net cash generated / (used) by operating activities                    | 22,659        | (25,668)        | 21,823        |
| Net cash generated / (used) by investing activities                    | (234)         | (1,622)         | (1,524)       |
| Net cash generated / (used) by financing activities                    |               | (20,000)        | (17)          |
| <b>Increase (decrease) in cash and cash equivalents for the period</b> | <b>22,425</b> | <b>(47,290)</b> | <b>20,282</b> |
| Cash and cash equivalents at the beginning of the period               | 18,277        | 65,567          | 45,285        |
| <b>Cash and cash equivalents at the end of the period</b>              | <b>40,702</b> | <b>18,277</b>   | <b>65,567</b> |

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FS-39

**Effects of disposal over the Company's financial position**

|   |                |
|---|----------------|
| - Receipt from the disposal of the investment   | 372,537        |
| - Cash and cash equivalents from discontinued operations                                | (40,702)       |
| <b>Net cash provided by the disposal of the investment from discontinued operations</b> | <b>331,835</b> |

**5. CASH AND CASH EQUIVALENTS**

|                                     | 12/31/2016       | Consolidated<br>12/31/2015 |
|-------------------------------------|------------------|----------------------------|
| <b>Current</b>                      |                  |                            |
| <b>Cash and cash equivalents</b>    |                  |                            |
| <b>Cash and banks</b>               | <b>502,480</b>   | <b>434,014</b>             |
| <b>Short-term investments</b>       |                  |                            |
| <b>In Brazil:</b>                   |                  |                            |
| Government securities               | 17,929           | 165,520                    |
| Private securities                  | 1,390,707        | 945,420                    |
|                                     | <b>1,408,636</b> | <b>1,110,940</b>           |
| <b>Abroad:</b>                      |                  |                            |
| Time deposits                       | 2,960,046        | 6,316,098                  |
| <b>Total short-term investments</b> | <b>4,368,682</b> | <b>7,427,038</b>           |
| <b>Cash and cash equivalents</b>    | <b>4,871,162</b> | <b>7,861,052</b>           |

The funds available in the Group set up in Brazil are basically invested in investment funds, classified as exclusive and its financial statements were consolidated within the CSN consolidated financial statements. The funds include repurchase agreements backed by private and public securities, with pre-fixed income, with immediate liquidity.

Private securities are short-term investments in Bank Deposit Certificates (CDBs) with yields pegged to the Interbank Deposit Certificate (CDI) fluctuation, and government securities are basically repurchasing agreements backed by National Treasury Notes and National Treasury Bills. The funds are managed by BNY Mellon Serviços Financeiros S.A. DTVM S.A and Caixa Econômica Federal (CEF) and their assets collateralize possible losses on investments and transactions carried out. The investments in those funds were consolidated.

A significant part of the funds of the Company and its foreign subsidiaries is invested in time deposits in banks considered by the administration as top rated banks and the returns are based on fixed interest rates.

FS-40

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**6. SHORT-TERM INVESTMENTS**

|                                    | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|------------------------------------|-------------------|------------------------------------|
| CDB - Bank deposit certificate (1) | 658,476           |                                    |
| Government securities (2)          | 101,915           | 763,599                            |
|                                    | <b>760,391</b>    | <b>763,599</b>                     |

(1) Financial investments linked to Bank Certificates of Deposit (CDBs), to be used as a collateral to a guarantee letter.

(2) In 2016, financial investments in Government Securities managed by its exclusive funds, which were used as collateral for future CDI rate's contracts in the period as detailed in note 14 (b). In 2015, bound as guarantee of real exchange rate futures contracts for Commercial dollar settled in December 2016.

**7. TRADE RECEIVABLES**

|                                      | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|--------------------------------------|-------------------|------------------------------------|
| <b>Trade receivables</b>             |                   |                                    |
| <b>Third parties</b>                 |                   |                                    |
| Domestic market                      | 1,027,639         | 772,617                            |
| Foreign market                       | 919,936           | 818,562                            |
|                                      | <b>1,947,575</b>  | <b>1,591,179</b>                   |
| Allowance for doubtful accounts      | (172,782)         | (151,733)                          |
|                                      | <b>1,774,793</b>  | <b>1,439,446</b>                   |
| Related parties (Note 20 b)          | 129,837           | 61,366                             |
|                                      | <b>1,904,630</b>  | <b>1,500,812</b>                   |
| <b>Other receivables</b>             |                   |                                    |
| Dividends receivable (Note 20 b) (*) | 37,679            | 27,817                             |
| Advances to employees                | 34,607            | 40,190                             |
| Other receivables                    | 20,300            | 9,458                              |
|                                      | <b>92,586</b>     | <b>77,465</b>                      |
|                                      | <b>1,997,216</b>  | <b>1,578,277</b>                   |

(\*) Refers mainly to dividends receivable from CSN Mineração S.A. totaling R\$822,319.

In accordance with Group' internal sales policy the Group performs operations relating to assignment of receivables without co-obligation in which, after assigning the customer's trade notes/bills and receiving the amounts from each transaction closed, CSN settles the trade receivables and becomes entirely free of the credit risk on the transaction. This transaction totals R\$263,644 as of December 31, 2016 (R\$232,275 as of December 31, 2015), less the trade receivables.

The breakdown of gross trade receivables from third parties is as follows:

|                         | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|-------------------------|-------------------|------------------------------------|
| Current                 | 1,381,255         | 1,049,033                          |
| Past-due up to 180 days | 245,012           | 353,443                            |
| Past-due over 180 days  | 321,308           | 188,703                            |
|                         | <b>1,947,575</b>  | <b>1,591,179</b>                   |

The movements in the Group's allowance for doubtful debts are as follows:

|                         | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|-------------------------|-------------------|------------------------------------|
| <b>Opening balance</b>  | <b>(151,733)</b>  | <b>(127,223)</b>                   |
| Estimated losses        | (25,474)          | (35,631)                           |
| Recovery of receivables | 4,425             | 11,121                             |
| <b>Closing balance</b>  | <b>(172,782)</b>  | <b>(151,733)</b>                   |

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FS-41

**8. INVENTORIES**

|                          | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|--------------------------|-------------------|------------------------------------|
| Finished goods           | 1,183,619         | 1,912,868                          |
| Work in progress         | 674,860           | 1,007,630                          |
| Raw materials            | 1,124,158         | 1,062,557                          |
| Spare parts              | 824,478           | 962,078                            |
| Iron ore                 | 255,029           | 95,461                             |
| Advances to suppliers    | 3,168             | 12,147                             |
| (-) Provision for losses | (101,176)         | (111,427)                          |
|                          | <b>3,964,136</b>  | <b>4,941,314</b>                   |

The movements in the provision for inventory losses are as follows:

|  | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|--|-------------------|------------------------------------|
| <b>Opening balance</b>   | <b>(111,427)</b>  | <b>(112,581)</b>                   |
| Reversal / (losses) for slow-moving and obsolescence (Note 25) | 10,251            | 1,154                              |
| <b>Closing balance</b>   | <b>(101,176)</b>  | <b>(111,427)</b>                   |

**9. OTHER CURRENT AND NON-CURRENT ASSETS**

The group of other current and non-current assets is comprised as follows:

|   | <b>Current</b>    |                   | <b>Consolidated<br/>Non-current</b> |                   |
|---|-------------------|-------------------|-------------------------------------|-------------------|
|   | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>12/31/2016</b>                   | <b>12/31/2015</b> |
| Judicial deposits (Note 18)                     |                   |                   | 331,258                             | 328,542           |
| Credits with the PGFN <sup>(1)</sup>            |                   |                   | 46,774                              | 87,761            |
| Recoverable taxes <sup>(2)</sup>                | 780,715           | 996,679           | 386,872                             | 445,926           |
| Prepaid expenses                                | 27,011            | 119,456           | 20,421                              | 28,119            |
| Actuarial asset - related party (Note 20<br>b)  |                   |                   | 119,854                             | 114,433           |
| Derivative financial instruments (Note<br>14 I) | 2,298             | 118,592           |                                     |                   |

|  |                |                  |                  |                  |
|--|----------------|------------------|------------------|------------------|
| Exclusive funds                                    |                |                  |                  |                  |
| Securities held for trading (Note 14 I)            | 2,966          | 10,778           |                  |                  |
| Iron ore inventory <sup>(3)</sup>                  |                |                  | 144,499          | 144,499          |
| Northeast Investment Fund – FINOR                  |                |                  | 26,598           | 10,888           |
| Other receivables (Note 14 I)                      |                |                  | 15,291           | 6,877            |
| Loans with related parties (Note 20 b and 14 I)    |                |                  | 479,960          | 373,214          |
| Other receivables from related parties (Note 20 b) | 5,768          | 9,420            | 32,020           | 29,020           |
| Other  | 33,255         | 31,524           | 72,273           | 14,642           |
|  | <b>852,013</b> | <b>1,286,449</b> | <b>1,675,820</b> | <b>1,583,921</b> |

(1) Refers to the excess of judicial deposit originated by the 2009 REFIS (Tax Debt Refinancing Program). After the settlement of the tax debt refinancing program, the amount related to one of the lawsuits was fully redeemed through a judicial authorization.

(2) Refers mainly to taxes on revenue (PIS/COFINS) and State VAT (ICMS) recoverable and income tax and social contribution for offset.

(3) Long-term iron ore inventories that will be used after the construction of the processing plant, which will produce pellet feed, expected to start operating in the second half of 2018.



## 10. INVESTMENTS

- **Reduction of financial leverage**

With the primary objective of reducing the Company's financial leverage, Management is committed to a plan to dispose of a set of assets, however, it is not possible to confirm that the sale within a period of 12 months is highly probable for any of the assets contemplated. The Company considers several sales scenarios that vary according to different macroeconomic and operational assumptions. In this context, the Company did not segregate and did not reclassify such assets in the financial statements as discontinued operations in accordance with IFRS 5.

The sale of the subsidiary Cia Metalic Nordeste, as mentioned in note 4, is part of the Company's efforts in the sale of assets.

FS-43

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**10.a) Direct equity interests in subsidiaries, joint ventures, joint operations, associates and other investments**

(1) Company extinguished;

(2) Fair Value of mining rights and property, plant and equipment arising from the business combination as detailed in note 3.1

(3) Investment reclassified to non-current assets held for sale on September, 2016 and sale realized on November, 2016 as detailed in note 4;

(4) Company incorporated in 2015;

(5) The amounts presented reflect the off-book adjustments made at the Company CSN Mineração;

(6) Control acquisition, according note 3.2, which evaluated at fair value on the acquisition date.

The number of shares, the carrying amounts of assets, liabilities and shareholders' equity, and the amounts of profit or loss for the year refer to the equity interests held by CSN in those companies.

FS-44

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**10.b) Changes of investments balances in subsidiaries, joint ventures, joint operations, associates and other investments**

|  | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|--|-------------------|------------------------------------|
| <b>Opening balance of investments</b>                          | <b>3,998,239</b>  | <b>Restated<br/>13,665,453</b>     |
| <b>Opening balance of loss provisions</b>                      |                   |                                    |
| Investment balance of Namisa 11.30.15                          |                   | (10,160,981)                       |
| Capital increase/acquisition of shares                         | 190,651           | 3,575                              |
| Capital reduction  |                   | (466,758)                          |
| Dividends <sup>(1)</sup>                                       | (36,765)          | (54,464)                           |
| Comprehensive income <sup>(2)</sup>                            | 713,442           | (967,447)                          |
| Equity pickup <sup>(4)</sup>                                   | 108,031           | 1,192,034                          |
| Transfer of shares - Namisa and MRS                            |                   | 786,812                            |
| Amortization of fair value – investment in MRS                 | (11,746)          |                                    |
| Amortization of fair value – investment in CGPAR               | (3,940)           |                                    |
| Impairment of the Fair Value of Transnordestina <sup>(3)</sup> | (387,989)         |                                    |
| Others   | (1,472)           | 15                                 |
| <b>Closing balance of investments</b>                          | <b>4,568,451</b>  | <b>3,998,239</b>                   |
| <b>Total</b>   | <b>4,568,451</b>  | <b>3,998,239</b>                   |

(1) In 2016 refers to the allocation of dividends from subsidiaries Sepetiba Tecon, MRS Logistica, CSN Energia, Itá Energética, CGPAR Construção Pesada, CSN Minerals, CSN Export, CSN Steel, CSN Metals, CSN Mineração and CSN Americas.

(2) Refers to the mark-to-market of investments classified as available for sale and translation to the reporting currency of the foreign investments (the functional currency of which is not the Brazilian Reais), actuarial gain/loss and gain/loss on net investment hedge from investments measured by equity method.

(3) Refers to impairment of the fair value of Transnordestina Logística S.A, see note 10.d).

(4) The reconciliation of the equity in results of affiliated companies included on investment balance with the amount disclosed in the income statement and it is due to the elimination of the results of the CSN's transactions with these companies

FS-45

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|   | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|---|-------------------|------------------------------------|
| <b>Equity in results of affiliated companies</b>          |                   |                                    |
| Nacional Minérios S.A.                                    |                   | 1,156,714                          |
| MRS Logística S.A.  | 155,617           | 78,684                             |
| CBSI - Companhia Brasileira de Serviços de Infraestrutura | 2,953             | (2,979)                            |
| Transnordestina   | (52,127)          | (31,137)                           |
| Arvedi Metalfer do Brasil                                 | 1,372             | (15,690)                           |
| Others  | 216               | 6,442                              |
|   | <b>108,031</b>    | <b>1,192,034</b>                   |
| <b>Eliminations</b>                                       |                   |                                    |
| To cost of sales  | (41,556)          | (50,815)                           |
| To net revenues   |                   | 2,805                              |
| To taxes  | 14,129            | 16,324                             |
| <b>Others</b>   |                   |                                    |
| Amortization of fair value – investment in MRS            | (11,746)          |                                    |
| Amortization of fair value – investment in CGPAR          | (3,940)           |                                    |
| Others  |                   | (76)                               |
| <b>Equity in results</b>                                  | <b>64,918</b>     | <b>1,160,272</b>                   |

#### 10.c) Additional information about the main operating subsidiaries

- SEPETIBA TECON S.A. (“TECON”)

The Container Terminal was created to exploit the terminal nº 1 in Itaguaí Port, located in the State of Rio de Janeiro. The terminal is connected to the UPV by the Southeast railroad network. The Southeast railroad network is the contract object of the concession that has been granted to MRS Logística S. A. The range of services includes the move operation of cargo, storage of containers and steel products, general cargo, cleaning and maintenance.

Tecon won the auction held on September 3, 1998 to enter into a lease agreement for operation of the port terminal for a period of 25 years, extendable for an equal period. With the publication of Presidential Decree 9048 of May 10, 2017, the operation of the terminal may be successively extended in distinct periods with a maximum term of 70 years.

When the concession expires, it will return to the Union as well as all the rights and privileges transferred to Tecon, along with the ownership of assets and those resulting from investments, declared reversible by the Federal Government for being necessary to the continuity of terminal’s operation. The reversible assets will be indemnified by the Federal Government at the residual value of cost, based on the accounting records of Tecon after deducting depreciation.

- ESTANHO DE RONDÔNIA S.A. (“ERSA”)

Headquartered in the state of Rondônia, the subsidiary operates two units, which are based in the cities of Itapuã do Oeste and Ariquemes. In Itapuã do Oeste is extracted the cassiterite (tin ore) and in Ariquemes is located the casting operation, where the metallic tin is made, which is the raw material used in UPV for the production of tin plates.

- COMPANHIA METALÚRGICA PRADA (“Prada”)

Prada operates in the area of two segments: steel metal packaging, production and processing and distribution of flat steel.

*Metal packaging*

In the steel metal packaging segment, Prada produces its supply chain includes the chemical and food segments, providing packaging and printing services to leading companies in the market.

Prada holds a 100% interest in the capital stock of Companhia Brasileira de Latas - “CBL”.

On 2015, Prada has incorporated its subsidiary Rimet Empreendimentos Industriais e Comerciais.

FS-46

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### *Distribution*

Prada is a player in the market of processing and distribution regarding flat steel products, with a diversified product line. It provides coils, rolls, strips, blanks, metal sheets, profiles, tubes and tiles, among other products, to the most different industry segments - from automotive to construction. It is also specialized in providing service steel processing, meeting the demand of the all national companies.

- CSN ENERGIA S.A.

Its main objective is the distribution of the excess electric power generated by CSN and Companies, consortiums or other entities in which CSN holds an interest.

- FTL - FERROVIA TRANSNORDESTINA LOGÍSTICA S.A. ("FTL")

FTL was created on the purpose of incorporating the spin-off portion of TLSA, the Company holds the concession to operate the railway cargo transportation, the public service is provided in northeastern of Brazil, which includes the rail segments of Sao Luis - Fortaleza, Arrojado - Recife, Itabaiana - Cabedelo, Paula Cavalcante - Macau and Propriá - Jorge Lins ("Network I").

As of November 2016, the CSN subscribed shares by capitalization of advances for future capital increase amounting R\$ 39,341, therefore its participation in the share capital of the company increased from 89.79% to 90.78%. As a result of the operations described above that caused a change in the shareholder's participation, the Company recorded a loss in the amount of R\$(25) recorded in shareholders' equity in other comprehensive income.

- CSN MINERAÇÃO S.A.

Headquartered in Congonhas, Minas Gerais, it is primarily engaged in the production, purchase and sale of iron ore. CSN Mineração S.A. commercializes its products mainly in the overseas market. From 30

November 2015, the CSN Mineração S.A. has centralized mining operations of CSN, including the establishments of the mine Casa de Pedra, the port TECAR and the participation of 18.63% in MRS. The participation of the CSN in this subsidiary is 87.52%.

- MINÉRIOS NACIONAL S.A.

Headquartered in Congonhas, Minas Gerais, Mineração Nacional is mainly engaged in the production and commercialization of iron ore. This subsidiary concentrates the mining rights assets related to the Fernandinho, Cayman and Casa de Pedra mines transferred to this subsidiary in the business combination process that took place in 2015.

- CGPAR CONSTRUÇÃO PESADA S.A. ("CGPAR")

A CGPAR was formed between CSN and GPA Construção Pesada e Mineração Ltda. The investment was considered a joint operation until the moment that it started being controlled by CSN as explained in note 3.2. Based in the city of Belo Horizonte, MG, CGPAR is mainly engaged in providing services related to the support to the extraction of iron ore, earth leveling, earthmoving, and dam construction.

#### **10.d) Joint ventures and joint operations financial information**

The balances of the balance sheets and income statements of joint venture and joint operation are presented as follows and refer to 100% of the companies' profit/loss:

FS-47

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(\*) Refers to the consolidated results of Namisa until November 30,2015

- ITÁ ENERGÉTICA S.A. - (“ITASA”)

ITASA is a corporation established in July 1996 that was engaged to operate under a shared concession, the Itá Hydropower Plant (UHE Itá), with 1,450 MW of installed power, located on the Uruguay River, on the Santa Catarina and Rio Grande do Sul state border.

- MRS LOGÍSTICA S.A. (“MRS”)

With registered offices in the City of Rio de Janeiro-RJ, this subsidiary is engaged in public railroad transportation, on the basis of an onerous concession, on the domain routes of the Southeast Grid of the federal railroad network (Rede Ferroviária Federal S.A. – RFFSA), located in the Southeast (Rio de Janeiro, São Paulo and Belo Horizonte). The concession has a 30-year term as from December 1, 1996, extendable for an equal term by exclusive decision of the concession grantor.

MRS may further engage in services involving transportation modes related to railroad transportation and participate in projects aimed at expanding the railroad service concessions granted.

For performance of the services covered by the concession for a, MRS leased from RFFSA for the same concession period, the assets required for operation and maintenance of the freight railroad transportation activities. At the end of the concession, all the leased assets are to be transferred to the ownership of the railroad transportation operator designated at that time.

In 2014, the Company had a direct equity interest of 27.27% in the capital stock of MRS, as well as an indirect equity interest of 10% therein, together with its joint venture Namisa.

On 2015, the Company has transferred 8.63% of its direct participation in MRS to CSN Mineração S.A under the business combination.

Owing to the transaction in question, the Company had a direct equity interest of 18.64% in the capital stock of MRS and an indirect equity interest of 18.63% through its subsidiary CSN Mineração S.A, consequently the total participation is 37.27%.

FS-48

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- CONSÓRCIO DA USINA HIDRELÉTRICA DE IGARAPAVA

The Igarapava Hydroelectric Power Plant is located on the Grande River, in the city of Conquista, MG, and has installed capacity of 210 MW. It consists of 5 bulb-type generating units.

CSN holds a 17.92% investment in the consortium, whose specific purpose is the distribution of electric power, which is made according to the percentage equity interest of each company.

The balance of property, plant and equipment less depreciation as of December 31, 2016 is R\$25,921 (R\$27,084 as of December 31, 2015) and the expense in 2016 amounted to R\$6,041 (R\$5,040 in 2015).

- CBSI - COMPANHIA BRASILEIRA DE SERVIÇOS DE INFRAESTRUTURA (“CBSI”)

CBSI is the result of a joint operation between CSN and CKTR Brasil Ltda. Based in the city of Araucária, PR, CBSI is primarily engaged in providing services CSN and other third-party entities, and can operate activities related to the refurbishment and maintenance of industrial machinery and equipment, construction maintenance, industrial cleaning, logistic preparation of products, among other activities.

- TRANSNORDESTINA LOGÍSTICA S.A. (“TLSA”)

TLSA is primarily engaged in the public service operation and development of a railroad network in the Northeast of Brazil network, comprising the rail segments Missão Velha-Salgueiro, Salgueiro-Trindade, Trindade-Eliseu Martins, Salgueiro- Porto de Suape, and Missão Velha-Porto de Pecém sections (“Railway System II”).

It is in pre-operational phase and should remain so until the completion of Rail Network II. The approved schedule, which considered the completion of the work by January 2017, is currently under review and discussion with the responsible bodies; However, Management understands that new deadlines for project completion will not have material adverse effects on the expected return on investment. After assessing this matter, its Management has concluded as appropriate the use of the accounting basis of operating continuity of the project in the preparation of its financial statements.

During the year 2016, the others shareholders of TLSA subscribed 6,842,806 shares in amounting to R\$360,000, diluting CSN on TLSA share capital to 49.02%. Therefore, due to the transactions described above and the participation change of the shareholders in the share capital of TLSA on 2016, the Company recognized a gain of R\$1,324, recorded in equity in others comprehensive income.

Even though at December 31, 2016, the Company has negative net working capital of R\$ 182,339, management receives funds from its shareholders and third parties for completion of the works, which are expected to be available, based on agreements previously entered into and recent discussions between the involved parties. After analyzing this matter, Management concluded as adequate the use of the accounting base of the project's going concern in the preparation of the financial statements for the year ended December 31, 2016.

In this direction, TLSA performed an impairment test of its own long-live assets using the discount cash flow method and considered the main assumptions, as follows:

Measurement of recoverable value:

| <b>Cash Flow Projection</b> | <b>Until 2057</b>  |
|-----------------------------|--|
| Gross Margin                | Based on market studies to capture operations costs and loads, according studied of market trends. |
| Estimated Costs             | Costs based on studies and market trends.  |
| Growth rate in perpetuity   | Growth rate was not considered due to the projection model until the end of the concession.        |
| Discount rate               | Between 4.25% to 7.90% in real terms.  |

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FS-49

In addition, CSN, as an investor, performed an impairment test of its stake in TLSA, through TLSA ability to distribute dividends, methodology known as Dividend Discount Model, or DDM, to remunerate the capital invested by shareholders. In order to perform this test, some aspects were taken into account, such as:

- The flow of dividends was obtained from the TLSA nominal cash flow;
- The flow of dividends was calculated considering the annual percentages of participation, considering the dilutions of the CSN's stakes due to the amortization of debts;
- This flow of dividends was discounts at present value using de cost of equity (Ke) embedded in the WACC rate of TLSA; and
- This Ke obtained was the one calculated in the "rolling WACC" of TLSA.

Another important aspect that was considered in the analysis of the impairment of CSN's investment in the TLSA, was the need to apply an additional percentage of risk to the discount rate in addition to the one already used to determine the discounted cash flow of TLSA. Due to the sharing of investors risks, and by the fact that the asset that is being tested represents the cash-generating unit itself, which is equal to the legal entity, the risk determined by CSN Management is the same applied by TLSA when the evaluation of their own investments, not applying an additional risk factor to the model.

As a result, the Company recognized a loss in the added-value of the investments of TLSA in the amount of R\$ 387,989 recorded in other operations and R \$ 131,916 in deferred taxes

#### **10.e) Additional information on indirect participation in foreign operations**

- STAHLWERK THÜRINGEN GMBH ("SWT")

SWT was formed from the former industrial steel complex of Maxhütte, located in the Germany city of Unterwellenborn, which produces steel shapes used for construction in accordance with international quality standards.

Its main raw material is steel scrap, the Company has an installed production capacity of 1.1 million metric tons steel/year. The SWT is a wholly owned indirect subsidiary of CSN Steel S.L.U, a subsidiary of CSN.

- COMPANHIA SIDERURGICA NACIONAL – LLC (“CSN LLC”)

The CSN LLC has an industrial plant in Terre Haute, Indiana State - USA, where is located the cold rolled and galvanized steel production lines. The LLC assets and liabilities came from the extinct Heartland Steel Inc., Incorporated in 2001. CSN LLC is a wholly owned indirect subsidiary of CSN Americas S.L.U, a subsidiary of CSN.

- LUSOSIDER AÇOS PLANOS S.A. (“Lusosider”)

Incorporated in 1996 in succession to Siderurgia Nacional (a company privatized by the Portuguese government that year), Lusosider is the only Portuguese company of the steel industry to produce cold rolled and galvanized anti-corrosion steel. Based in Paio Pires, The Lusosider has an installed capacity of about 550,000 tons / year to produce four large groups of steel products: galvanized sheet, cold rolled sheet, pickled and oiled plate. The products are manufactured by Lusosider and may be used in the packaging industry, construction (pipes and metallic structures) and in home appliance components.

#### **10.f) Other investments**

- PANATLÂNTICA S. A. (“Panatlântica”)

Panatlântica is a publicly-held company, headquartered in the city of Gravataí, State of Rio Grande do Sul, engaged in the manufacturing, trade, import, export and processing of steel and ferrous or non-ferrous metals, coated or not. This investment is classified as available-for-sale and measured at fair value.

FS-50

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The Company currently holds 11.35% (11.38% as of December 31, 2015) of Panatlântica's total share capital.

- USINAS SIDERURGICAS DE MINAS GERAIS S.A. – USIMINAS (“USIMINAS”)

Usiminas, headquartered in Belo Horizonte, State of Minas Gerais, is engaged in steel and related operations. Usiminas produces flat rolled steel in the Intendente Câmara and José Bonifácio de Andrada e Silva plants, located in Ipatinga, Minas Gerais, and Cubatão, São Paulo, respectively, the final product is sold in the domestic and foreign market. Usiminas also exploits iron ore mines located in Itaúna, Minas Gerais, to meet its verticalization and production cost optimization strategies. Usiminas also has service and distribution centers located in several regions of Brazil, and the Cubatão, São Paulo, and Praia Mole, Espírito Santo, all centers are located in strategic locations for the shipment of its production.

On April 9, 2014, the Administrative Council for Economic Defense (CADE - Conselho Administrativo de Defesa Econômica) issued its decision on the matter about the Usiminas shares held by CSN signing a Performance Commitment Agreement), also called TCD, between CADE and CSN. Under the terms of the decision of CADE and TCD, CSN must reduce its interest in Usiminas, within a specified period. The deadline and percentage reduction are confidential. In addition, the political rights in Usiminas will continue suspended until the Company reaches the limits established in the TCD.

In March 2016, the Board of Directors of Usiminas approved a capital increase of R \$ 64,882, through the issue of up to 50,689,310 preferred shares. On April 22, 2016, CSN exercised its preemptive rights in full, paying R \$ 11,603 for 9,064,856 preferred shares. This increase was approved by the Board of Directors of Usiminas on June 3, 2016.

On March 24, 2016, the Company requested to CADE (Brazilian Antitrust Agency) the flexibilization of the PAT (Performance Commitment Agreement (TCD), in order to enable us the exercise of certain political rights, namely the power to elect independent members of the board of directors and supervisory board. On April 27, 2016, CADE approved the Company's request to permit such election. On April 28, at the Usiminas' annual general meeting, the Company elected 2 independent members of the board of directors and 1 of the supervisory board, as well as the same number of alternates.

In April 2016, the Extraordinary Shareholders' Meeting of Usiminas approved a capital increase of R\$ 1,000,000 through the issue of 200,000,000 common shares. On May 20, 2016, CSN exercised its preemptive right in full, paying R\$ 178,832 for 35,766,351 common shares. This increase was approved by

the Extraordinary General Meeting of Usiminas on July 19, 2016.

As of December 31, 2016, the Company reached holdings of 15.19% in common shares and 20.86% in preferred shares (As of December 31, 2016 14.13% in common shares and 20.69% in preferred shares) of USIMINAS share capital.

USIMINAS is listed on the São Paulo Stock Exchange (“BM&F BOVESPA”: USIM3 and USIM5).

- ARVEDI METALFER DO BRASIL S.A. (“Arvedi”)

Arvedi, headquartered in Salto, State of São Paulo, is engaged in pipe production. As of December 31, 2016 and 2015 CSN held 20.00% of Arvedi’s share capital.

FS-51

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## 11. PROPERTY, PLANT AND EQUIPMENT

(\*) Refer basically to railway assets such as courtyards, tracks and leasehold improvements, vehicles, hardware, mines, ore deposits, and spare part inventories.

FS-52

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The breakdown of the projects that comprise construction in progress is as follows:

| Project description  | Start date | Completion date | Consolidated     |                  |
|--|------------|-----------------|------------------|------------------|
|  |            |                 | 12/31/2016       | 12/31/2015       |
| <b>Logistics</b>   |            |                 |                  |                  |
| Current investments for maintenance of current operations.       |            |                 | 103,284          | 35,457           |
|  |            |                 | <b>103,284</b>   | <b>35,457</b>    |
| <b>Mining</b>  |            |                 |                  |                  |
| Expansion of Casa de Pedra Mine capacity production.             | 2007       | 2018 (1)        | 689,160          | 709,945          |
| Expansion of TECAR export capacity.                              | 2009       | 2020 (2)        | 253,545          | 390,920          |
| Current investments for maintenance of current operations.       |            |                 | 261,056          | 302,764          |
|  |            |                 | <b>1,203,761</b> | <b>1,403,629</b> |
| <b>Steel</b>   |            |                 |                  |                  |
| Supply of 16 torpedo's cars for operation in the steel industry. | 2008       | 2019            | 91,779           | 105,697          |
| Expansion of the service center/Mogi.                            | 2013       | 2016 (3)        |                  | 14,950           |
| Current investments for maintenance of current operations.       |            | (4)             | 307,448          | 375,579          |
|  |            |                 | <b>399,227</b>   | <b>496,226</b>   |
| <b>Cement</b>  |            |                 |                  |                  |
| Construction of cement plants.                                   | 2011       | 2020 (5)        | 529,631          | 1,254,897        |
| Current investments for maintenance of current operations.       |            |                 | 24,961           | 9,177            |
|  |            |                 | <b>554,592</b>   | <b>1,264,074</b> |
| <b>Total Construction in Progress</b>                            |            |                 | <b>2,260,864</b> | <b>3,199,386</b> |

(1) Estimated completion date of the Central Plant Step 1;

(2) Estimated completion date of phase 60 Mtpa;

(3) Completion date of Mogi Service Center;

(4) Refers substantially to the reforming of batteries for coke ovens and reuse of the carbochemical cooling waters;

(5) Refers substantially to the acquisition of new Integrated Cement Plants

The estimated useful lives are as follows (in years):

|                                     | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|-------------------------------------|-------------------|------------------------------------|
| Buildings                           | 41                | 43                                 |
| Machinery, equipment and facilities | 18                | 18                                 |
| Furniture and fixtures              | 12                | 11                                 |
| Other                               | 14                | 14                                 |

FS-53

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**11.a) Depreciation, amortization and depletion expenses:**

Additions to depreciation, amortization and depletion for the period were distributed as follows:

|                                     | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>Consolidated<br/>12/31/2014</b> |
|-------------------------------------|-------------------|-------------------|------------------------------------|
|                                     |                   | <b>Restated</b>   |                                    |
| Production costs                    | 1,241,425         | 1,107,878         | 1,222,302                          |
| Sales expenses                      | 9,163             | 9,115             | 9,066                              |
| General and Administrative Expenses | 28,228            | 13,876            | 13,763                             |
|                                     | <b>1,278,816</b>  | <b>1,130,869</b>  | <b>1,245,131</b>                   |
| Other operating expenses (*)        | 43,681            | 41,068            | 36,354                             |
|                                     | <b>1,322,497</b>  | <b>1,171,937</b>  | <b>1,281,485</b>                   |

(\*) Refers mainly to the amortization of intangible assets, as described in note 25.

**11.b) Capitalized Interest**

As of December 31, 2016, the Company capitalized borrowing costs amounting to R\$215,794 in consolidated (as of December 31, 2015, R\$166,366 ). These costs are basically estimated for the cement and mining projects, mainly relating to: new integrated cement plant; and (ii) Casa de Pedra (MG) expansion and TECAR (RJ), see notes 26 and 32.

The rates used to capitalize borrowing costs are as follows:

|                      | <b>Rates</b> | <b>12/31/2016</b> | <b>12/31/2015</b> |
|----------------------|--------------|-------------------|-------------------|
| Unspecified projects |              | 10.48%            | 11.35%            |

**12. INTANGIBLE ASSETS**

(\*) Composed mainly by mineral rights with estimated resources of 1,101 million tons. Corresponding amortization is recorded based on production volumes.

The estimated average useful lives by nature are as follows (in years):

|                        | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|------------------------|-------------------|------------------------------------|
| Software               | 8                 | 8                                  |
| Customer relationships | 13                | 13                                 |

**12.a) Impairment testing**

The goodwill arising from expectations for future profitability of the companies acquired and the intangible assets with indefinite useful lives (trademarks) have been allocated to the operational divisions (cash-generating units) of CSN, which represent the lowest level of assets or group of assets. When a CGU has an intangible asset with indefinite useful life allocated, the Company performs an impairment test. The CGU with intangible assets in this situation are as follows:

| <b>Cash generating<br/>unity</b> | <b>Segment</b> | <b>Goodwill</b>   |                   | <b>Trademarks</b> |                   | <b>Consolidated<br/>Total</b> |                   |
|----------------------------------|----------------|-------------------|-------------------|-------------------|-------------------|-------------------------------|-------------------|
|                                  |                | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>12/31/2016</b>             | <b>12/31/2015</b> |
| Packaging (1)                    | Steel          | 158,748           | 158,748           |                   |                   | 158,748                       | 158,748           |
| Flat steel                       | Steel          |                   | 13,091            |                   |                   |                               | 13,091            |
| Long steel (2)                   | Steel          | 235,595           | 235,595           | 116,196           | 143,636           | 351,791                       | 379,231           |
| Mining (3)                       | Mining         | 3,196,588         | 3,196,588         |                   |                   | 3,196,588                     | 3,196,588         |
|                                  |                | <b>3,590,931</b>  | <b>3,604,022</b>  | <b>116,196</b>    | <b>143,636</b>    | <b>3,707,127</b>              | <b>3,747,658</b>  |

(1) The goodwill of the Packaging cash-generating unit is shown net of impairment loss in the amount of R\$109,330, recognized in 2011

FS-55

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(2) The goodwill and trademark that are recorded in line item intangible assets at long steel segment, those transactions are derived from the business combination of *Stahlwerk Thuringen GmbH* ("SWT") and Gallardo Sections CSN. The assets mentioned are considered to have indefinite useful lives as they are expected to contribute indefinitely to the Company's cash flows.

(3) Refers to the goodwill based on expectations for future profitability, resulting from the acquisition of Namisa by CSN Mineração, an operation that was concluded in December 2015. From 2016, the balance started to be tested annually for impairment analysis. See further details relating to calculation of the goodwill in note 3.1.3b – Business Combination.

The impairment testing of the goodwill and the trademark include the balance of property, plant and equipment of the cash-generating units and also the intangible. The test is based on the comparison between the actual balances and the value in use of those units, determining based on the projections of discounted cash flows and use of such assumptions and judgements as: growth rate, costs and expenses, discount rate, working capital, future Capex investment and macroeconomic assumptions observable in the market.

The main assumptions used in calculations of value in use at December 31, 2016 are as follows:

(\*) Includes the assets related to the plant of Aços Longos located at Usina Presidente Vargas and the subsidiary SWT. For the assets located in Germany, the discount rate was applied on the discounted cash flow prepared in Euros, the functional currency of this subsidiary.

Based on the analyses conducted by Management, it was not necessary to record losses by impairment to those assets for the year ended on December 31, 2016.

FS-56

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**13. BORROWINGS, FINANCING AND DEBENTURES**

The balances of borrowings, financing and debentures, which are carried at amortized cost, are as follows:

|   | Rates p.a. (%)                               | Current liabilities |                  | Consolidated Non-current liabilities |                   |
|---|--|---------------------|------------------|--------------------------------------|-------------------|
|   |  | 12/31/2016          | 12/31/2015       | 12/31/2016                           | 12/31/2015        |
| <b>FOREIGN CURRENCY</b>                                   |  |                     |                  |                                      |                   |
| Prepayment  | 1% to 3.5%                                   | 110,944             | 207,657          | 482,347                              | 2,633,137         |
| Prepayment  | 3.51% to 8%                                  | 438,802             | 286,487          | 4,290,062                            | 3,429,716         |
| Perpetual bonds   | 7%   | 4,436               | 5,315            | 3,259,100                            | 3,904,800         |
| Fixed rate notes  | 4.14% to 10%                                 | 137,126             | 175,768          | 5,529,380                            | 6,910,992         |
| <i>Forfaiting</i>   | Libor + Spread                               |                     | 288,772          |                                      |                   |
| Others  | 1.2% to 8%                                   | 95,983              | 115,594          | 259,262                              | 425,635           |
|   |  | <b>787,291</b>      | <b>1,079,593</b> | <b>13,820,151</b>                    | <b>17,304,280</b> |
| <b>LOCAL CURRENCY</b>                                     |  |                     |                  |                                      |                   |
| BNDES/FINAME  | 1,3% + TJLP and fixed rate 2.5% to 6% + 1,5% | 73,736              | 55,435           | 1,012,268                            | 1,018,189         |
| Debentures  | 110.8% to 113.7% of CDI                      | 538,003             | 60,670           | 1,270,383                            | 1,750,000         |
| Prepayment  | 109.5% to 116.5% of CDI and fixed rate of 8% | 570,778             | 522,418          | 5,080,000                            | 5,200,000         |
| CCB   | 112.5% and 113% of CDI                       | 181,143             | 92,976           | 7,200,000                            | 7,200,000         |
| Drawee risk   |  |                     | 84,063           |                                      |                   |
| Other   |  |                     | 6,229            |                                      | 12,107            |
|   |  | <b>1,363,660</b>    | <b>821,791</b>   | <b>14,562,651</b>                    | <b>15,180,296</b> |
| <b>Total borrowings and financing (Note 14 I)</b>         |  | <b>2,150,951</b>    | <b>1,901,384</b> | <b>28,382,802</b>                    | <b>32,484,576</b> |
| Transaction costs and issue premiums                      |  | (33,503)            | (26,703)         | (59,232)                             | (76,742)          |
| <b>Total borrowings and financing + transaction costs</b> |  | <b>2,117,448</b>    | <b>1,874,681</b> | <b>28,323,570</b>                    | <b>32,407,834</b> |

**13.a) Maturities of borrowings, financing and debentures presented in non-current liabilities**



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As of December 31, 2016, the breakdown of principal plus interest of long-term liabilities as borrowings, financing and debentures by maturity date is presented as follows:

|                 |                   | <b>Consolidated</b> |
|-----------------|-------------------|---------------------|
| 2018            | 5,593,215         | 20%                 |
| 2019            | 7,168,873         | 25%                 |
| 2020            | 7,484,315         | 26%                 |
| 2021            | 2,219,779         | 8%                  |
| 2022            | 1,839,804         | 6%                  |
| After 2022      | 817,716           | 3%                  |
| Perpetual bonds | 3,259,100         | 12%                 |
|                 | <b>28,382,802</b> | <b>100%</b>         |

FS-57

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**13.b) Amortization and new borrowings, financing and debentures**

The table below presents the new funding transactions and amortization during the year:

|   | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|---|-------------------|------------------------------------|
| <b>Opening balance</b>                                      | <b>34,282,515</b> | <b>30,354,058</b>                  |
| Funding Transactions  | 30,034            | 978,206                            |
| Forfaiting funding / Drawee Risk                            | 78,240            | 924,706                            |
| Repayment   | (695,938)         | (2,850,077)                        |
| Payments - Forfaiting / Drawee Risk                         | (407,155)         | (1,146,306)                        |
| Payment of interest and other charges                       | (3,044,342)       | (2,957,762)                        |
| Payment of interest and other charges – Forfaiting / Drawee | (5,694)           | (7,064)                            |
| Provision of interest and other charges                     | 3,156,120         | 3,052,164                          |
| Provision of charges - Forfaiting / Drawee Risk             | 4,237             | 2,032                              |
| Others (1)  | (2,956,999)       | 5,932,558                          |
| <b>Closing balance</b>                                      | <b>30,441,018</b> | <b>34,282,515</b>                  |

(1) Includes unrealized monetary and foreign exchange variations.

In 2016, the Group captures and amortized loans as shown below:

- Funding**

- Consolidated**

| <b>Transaction</b>                      | <b>Financial institution</b>       | <b>Date</b> | <b>Amount</b>  | <b>Maturity</b> |
|---|------------------------------------|-------------|----------------|-----------------|
| Financing – Acquisition of SWT’s assets | Kreissparkasse Saalfeld-Rudolstadt | June/16     | 7,437          | January/18      |
| Financing - FINEP (1)                   | FINEP                              | October/16  | 22,597         | February/26     |
| Drawee risk                             | Itaú                               | February/16 | 78,240         | June/16         |
| <b>Total</b>                            |                                    |             | <b>108,274</b> |                 |

1. In 2016, CSN contracted a credit line from FINEP (Financiadora de Estudos e Projetos) in the amount of R\$173,822, of which R\$22,597 has already been partially disbursed. At December 31, 2016, the Company had a financial investment linked to CDB to secure a letter of guarantee in the amount of

R\$ 25,750, see note 6.

- **Amortization**

#### **Consolidated**

| <b>Transaction</b>   | <b>Principal</b> | <b>Charges</b>   |
|----------------------|------------------|------------------|
| Fixed Rate Notes     | 107,948          | 700,982          |
| Debentures           |                  | 263,750          |
| Bank Credit Bill     |                  | 995,006          |
| Export Credit Note   | 65,000           | 813,701          |
| Pre - Export Payment | 170,731          | 210,676          |
| BNDES/FINAME         | 50,856           | 58,900           |
| Pre - Debt Payment   | 297,239          |                  |
| Drawee risk          | 162,303          |                  |
| Forfaiting           | 244,852          | 5,694            |
| Others               | 4,164            | 1,327            |
| <b>Total</b>         | <b>1,103,093</b> | <b>3,050,036</b> |

FS-58

- **Covenants**

The Company's loan agreements establish the fulfillment of certain non-financial obligations, as well as maintenance of certain parameters and performance indicators, such as disclosure of its audited financial statements according to regulatory deadlines or payment of commission on risk assumption, if the net debt-EBITDA ratio reaches the levels in those agreements.

Exceptionally the Company did not file the statutory financial statements for the year ended December 31, 2016 within the regulatory period, according to a significant event disclosed on March 27, 2017. Due to this exceptionality, the Company requested the debenture holders of its 5th, 7th, 8th and 9th Debentures Issuance to grant additional term for the disclosure of those financial statements until October 31, 2017. There was no early maturity decree of the Company's financings, due to the late disclosure of the financial statements in question.

On December 31, 2016, the Company has accrued R\$ 30,843 as the commission on risk assumption in the current liabilities.

## **14. FINANCIAL INSTRUMENTS**

### **I - Identification and measurement of financial instruments**

The Company enters into transactions involving various financial instruments, mainly cash and cash equivalents, including short-term investments, marketable securities, trade receivables, trade payables, and borrowings and financing. The Company also enters into derivative transactions, especially interest rate and foreign exchange and rate swaps.

Considering the nature of these instruments, their fair value is basically determined by using Brazil's money market and mercantile and futures exchange quotations. The amounts recognized in current assets and current liabilities have immediate liquidity or short-term maturity, mostly less than three months. Considering the maturities and characteristics of such instruments, their carrying amounts approximate their fair values.

FS-59

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- **Classification of financial instruments**

FS-60

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- **Fair value measurement**

The following table shows the financial instruments recognized at fair value through profit or loss using a valuation method:

| Consolidated   | 12/31/2016       |              |                  | 12/31/2015     |                |                |
|--|------------------|--------------|------------------|----------------|----------------|----------------|
|  | Level 1          | Level 2      | Balances         | Level 1        | Level 2        | Balances       |
| <b>Assets</b>  |                  |              |                  |                |                |                |
| <b>Current assets</b>                                      |                  |              |                  |                |                |                |
| Financial assets at fair value through profit or loss      |                  |              |                  |                |                |                |
| Derivative financial instruments                           |                  | 2,298        | 2,298            |                | 118,592        | 118,592        |
| Trading securities   | 2,966            |              | 2,966            | 10,778         |                | 10,778         |
| <b>Non-current assets</b>                                  |                  |              |                  |                |                |                |
| <b>Available-for-sale financial assets</b>                 |                  |              |                  |                |                |                |
| Investments  | 1,374,268        |              | 1,374,268        | 471,674        |                | 471,674        |
| <b>Total Assets</b>  | <b>1,377,234</b> | <b>2,298</b> | <b>1,379,532</b> | <b>482,452</b> | <b>118,592</b> | <b>601,044</b> |
| <b>Liabilities</b>   |                  |              |                  |                |                |                |
| <b>Current liabilities</b>                                 |                  |              |                  |                |                |                |
| Financial liabilities at fair value through profit or loss |                  |              |                  |                |                |                |
| Derivative financial instruments                           |                  | 121          | 121              |                | 26,257         | 26,257         |
| <b>Total liabilities</b>                                   |                  | <b>121</b>   | <b>121</b>       |                | <b>26,257</b>  | <b>26,257</b>  |

Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: Includes observable inputs in market such as interest rates, exchange etc., but not prices traded in active markets.

There are no assets and liabilities classified as level 3.

**II – Investments in financial instruments classified as available-for-sale and measured at fair value through OCI**

The Company has investments in common (USIM3) and preferred (USIM5) shares of Usiminas (“Usiminas Shares”), designated as available-for-sale financial assets. The Company adopts this designation because the nature of the investment is not comprised in any other categories of financial instruments (loans and receivables, held-to-maturity investments or financial assets at fair value through profit or loss). The asset is classified as a non-current asset in line item “investments” and is carried at fair value based on the quoted price on the stock exchange (BM&FBOVESPA). According to the Company’s policy, the gains and losses arising from changes in the price of shares are recorded directly in equity, as other comprehensive income.

The Company’s accounting policy requires a quarterly analysis based on quantitative and qualitative information available in the market from the moment the instrument demonstrates a drop of more than 20% of their market value or from a significant drop in market value compared to their acquisition cost for more than 12 months. If the Company concludes that there was a significant drop in the price of the instrument, an impairment loss must be recognized. In 2012, considering the price of Usiminas shares on the BM&F Bovespa, was recorded the first impairment loss on that shares. According to this policy, whenever the share price reached a level lower than the last record impairment, the Company should record further losses, redefining the new minimum threshold value of the shares.

During the year 2016, there was no impairment recorded and the gain from the change in share price in the period was recorded in other comprehensive income (the impairment recorded as of December 31, 2015 amounted to R\$ 555,298):

FS-61

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| Class of shares | Quantity           | 12/31/2016  |                  | Quantity           | 12/31/2015  |                 | Variation in the year |                                  |
|-----------------|--------------------|-------------|------------------|--------------------|-------------|-----------------|-----------------------|----------------------------------|
|                 |                    | Share price | Closing Balance  |                    | Share price | Closing Balance | Share price           | Variation in the carrying amount |
| Common          | 107,156,651        | 8.26        | 885,114          | 71,390,300         | 4.02        | 286,989         | 4.24                  | 598,125                          |
| Preferred       | 114,280,556        | 4.10        | 468,550          | 105,215,700        | 1.55        | 163,084         | 2.55                  | 305,466                          |
|                 | <b>221,437,207</b> |             | <b>1,353,664</b> | <b>176,606,000</b> |             | <b>450,073</b>  |                       | <b>903,591</b>                   |

- **Share market price risks**

The Company is exposed to the risk of changes in share prices due to the investments made and classified as available-for-sale.

According to the Company's accounting policies, any negative changes in the investment in Usiminas considered significant (impairment) are recognized in profit or loss and the other changes that not occur from impairment are recognized in comprehensive income until the investment is realized.

As of December 31, 2016, the amount recognized in comprehensive income for investments available for sale, net of taxes is R\$678,035 (R\$(73) as of December 31, 2015).

### III - Financial risk management

The Company has and follows a policy of managing its risks, with guidelines regarding the risks incurred by the company. Pursuant to this policy, the nature and general position of financial risks are regularly monitored and managed in order to assess the results and the financial impact on cash flow. The credit limits and the quality of counterparties' hedging instruments are also periodically reviewed.

Under this policy, market risks are hedged when it is considered necessary to support the corporate strategy or when it is necessary to maintain a level of financial flexibility.

Under the terms of the risk management policy, the Company manages some risks by using derivative instruments. The Company's risk policy prohibits any speculative deals or short sales.

#### 14.a) Foreign exchange and interest rate risks

- **Exchange rate risk**

The exchange rate risk arises from the existence of assets and liabilities denominated in US dollars or Euros, since the Company's functional currency is the Real. Net exposure is the result of offsetting the natural currency exposure by hedging instruments adopted by CSN.

The consolidated net exposure as of December 31, 2016 is as follows:

| <b>Foreign Exchange Exposure</b>   | <b>(Amounts in<br/>US\$'000)</b> | <b>12/31/2016<br/>(Amounts in<br/>€'000)</b> |
|------------------------------------|----------------------------------|--|
| Cash and cash equivalents overseas | 913,513                          | 6,614  |
| Trade receivables                  | 372,613                          | 3,497  |
| Other assets                       |                                  | 426  |

|  |                    |                  |
|--|--------------------|------------------|
|  | 3,906              | 13,157           |
| <b>Total assets</b>  | <b>1,290,032</b>   | <b>23,268</b>    |
| Borrowings and financing                                       | (4,373,046)        | (97,602)         |
| Trade payables   | (97,231)           | (2,438)          |
| Other liabilities  | (17,946)           | (9,288)          |
| <b>Total liabilities</b>                                       | <b>(4,488,223)</b> | <b>(109,328)</b> |
| <b>Foreign exchange exposure</b>                               | <b>(3,198,191)</b> | <b>(86,060)</b>  |
| Cash flow hedge accounting                                     | 1,457,667          |                  |
| Net Investment hedge accounting                                |                    | 96,000           |
| <b>Net foreign exchange exposure</b>                           | <b>(1,740,524)</b> | <b>9,940</b>     |
| Perpetual Bonds  | 1,000,000          |                  |
| <b>Net foreign exchange exposure excluding perpetual bonds</b> | <b>(740,524)</b>   | <b>9,940</b>     |

During the second quarter of 2016, CSN began a process of reviewing its currency hedge strategy, which resulted in the settlement of the future dollar derivatives portfolio. As a result, the net foreign currency exposure at the consolidated balance sheet as of December 31, 2016 was US\$1,740,524 thousand, as shown in the table above. It should be noted that the balance of net foreign currency exposure includes a liability of US\$1 billion, in the line item of Loans and Financing related to perpetual bond that, considering its characteristics, will not require disbursement for settlement of the principal in a foreseeable future. Therefore, excluding perpetual bonds, the Company's net foreign exchange exposure amounts to R\$ 740,524 thousand. The company has focused its hedge strategy on preserving its cash flow, so it is evaluating a replacement of the exposure generated by the settlement of derivatives with new hedge accounting designations, capturing the existing natural hedges, as well as using other derivative instruments with the purpose of hedging CSN's future cash flows.

- **Interest rate risk**

Risk arises from short and long term liabilities with fixed or post fixed interest rates and inflation rates.

Item 14 b) shows the derivatives and hedging strategies to protect exchange and interest rates risks.

#### **14.b) Hedging instruments: Derivative and hedge accounting**

CSN uses several instruments for protection of foreign currency risk and interest rate risk, as shown in the following topics:

- **Portfolio of derivative financial instruments**

#### **Forward DI contracts**

The Company to hedge part or all of its exposure to assets whose interest rates are pre-fixed may obtain DI derivative operations on the stock exchange or the over-the-counter market, linking these assets to market trends. As of December 31, 2016 the Company held in its portfolio forward CDI rate contracts traded at BM&F Bovespa which totaled the notional amount of R\$ 1.641 billion.

The forward DI contract is defined as the accumulative value of the average daily DI rates of one day, calculated between the date of the transaction and the last trading date, being used to hedge and manage the interest rate risk of assets / liabilities in DI. The purchase and sale transactions, originally contracted in rate, will be converted into sale and purchase transactions, respectively, in PU.

The contract settlement is exclusively financial, on the due date and occurs daily until the maturity. The position held by the Company is set at the end of each session based on the difference of the day's settlement price (D0) compared to the previous day price (D-1), and is settled on the following day (D+1), according to the rules of BM&F.

For as much as the Company maintains contracts traded on the BM&F Bovespa, it is required by the clearing house a guarantee margin to cover those commitments in these contracts, which is only a percentage of the contract's total amount. CSN maintains securities linked to this guarantee margin, consisting mainly of government bonds, which will be redeemed after the end position. The amounts of these investments are described in Note 6.

FS-64

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## **Dollar x Euro swap**

The subsidiary Lusosider has derivative transactions to protect its dollar exposure versus euro.

- **Classification of the derivatives in the balance sheet and statement of income**

(\* ) Swap positions were settled in February, March and April 2016.

- **Hedge accounting – cash flow**

Beginning November 1, 2014, the Company formally designated cash flow hedging relationships to protect highly probable future cash flows against US dollar fluctuations.

In order to better reflect the accounting impacts of this foreign exchange hedging strategy on its profit, CSN designated part of its US dollar-denominated liabilities as a hedging instrument of its future exports. As a result, foreign exchange differences arising on translating the designated liabilities will be temporarily recognized in shareholders' equity and allocated to profit or loss when such exports are carried out, which will allow recognizing the US dollar impact on liabilities and exports concurrently. Note that adopting hedge accounting does not entail contracting any financial instrument. As of December 31, 2016 the Company designated for hedge accounting US\$1.5 billion in exports to be carried out between October, 2017 and October, 2022.

To support these designated amounts, the Company prepared formal documentation indicating how hedging is aligned with the goal and strategy of CSN's Risk Management Policy by identifying the hedging instruments used, the hedging purpose, the nature of the hedged risk, and showing the expected high effectiveness of the designated relationships. The designated debt instruments total an amount equivalent to the portion of future exports. Thus, the exchange differences on translating the instrument and the hedged item are similar. According to the Company's accounting policy, continuous assessments of the

prospective and retrospective effectiveness must be carried out by comparing the designated amounts with the expected amounts, approved in Management's budgets, and the actual export amounts.

Through hedge accounting, the exchange gains and losses of the debt instruments do not immediately affect the Company's profit or loss except to the extent that exports are carried out.

The table below shows a summary of the hedging relationships as of December 31, 2016:

FS-65

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(\*) The effect on the result was recorded in other operating expenses.

(1) During the designation on August 2015, we reviewed the future export projections and identified that the amount of US\$ 9 million designated previously were not highly probable due to Platt's quotation reduction. Therefore, the hedge relationship was discontinued from August 2015. The exchange rate of the effective period remains recorded in Stockholders' Equity until the time of debt settlement.

In the hedging relationships described above, the amounts of the debt instruments were fully designated for equivalent iron ore export portions.

The movements in the hedge accounting amounts recognized in shareholders' equity as of December 31, 2016 are as follows:

|   | <b>12/31/2014</b> | <b>Movement</b>  | <b>Realization</b> | <b>12/31/2015</b> | <b>Movement</b>    | <b>Realization</b> | <b>12/31/2016</b> |
|---|-------------------|------------------|--------------------|-------------------|--------------------|--------------------|-------------------|
| Cash flow hedge accounting  | 120,633           | 1,410,895        | (11,439)           | 1,520,089         | (1,005,968)        | (77,444)           | 436,677           |
| Income tax and social contribution on cash flow hedge accounting              | (41,015)          | (479,705)        | 3,889              | (516,831)         |                    |                    | (516,831)         |
| Not recorded Income tax and social contribution on cash flow hedge accounting |                   | 516,831          |                    | 516,831           |                    |                    | 516,831           |
| <b>Fair value of cash flow hedge, net of taxes</b>                            | <b>79,618</b>     | <b>1,448,021</b> | <b>(7,550)</b>     | <b>1,520,089</b>  | <b>(1,005,968)</b> | <b>(77,444)</b>    | <b>436,677</b>    |

As of December 31, 2016 the hedging relationships established by the Company were effective, according to the prospective tests conducted. Thus, no reversal for hedge accounting ineffectiveness was recognized.



- **Net investment hedge in foreign subsidiaries**

CSN has a natural foreign exchange exposure in Euros substantially arising from a loan made by a foreign subsidiary with functional currency in Reais, for the acquisition of investments abroad whose functional currency is Euro. Such exposure arises from converting the balance sheets of these subsidiaries for consolidation in CSN, and the exchange rate of the loans affected the income statement in the financial result item and the exchange variation of the net assets of the foreign operation directly affected the equity in other comprehensive income.

FS-66

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As from September 1<sup>st</sup>, 2015 CSN began to adopt hedge of net investment to eliminate exposure and cover future fluctuations of the Euro on such loans. Non-derivative financial liabilities have been designated represented by loan agreements with financial institutions in the amount of € 120 million. The carrying amounts on December 31, 2016 are:

| Designation Date | Hedging Instrument  | Hedged Item  | Type of Hedged Risk                      | Exchange Rate on designation | Designated amounts (EUR'000) | 12/31/2016 Impact on shareholders' equity |
|------------------|---|--|--|------------------------------|------------------------------|---|
| 09/01/2015       | Non-derivative financial liabilities in EUR – Debt contract | Investments in subsidiaries which EUR is the functional currency | Foreign exchange - R\$ vs. EUR spot rate | 4.0825                       | 120,000                      | 57,804                                    |
| 01/31/2016       | Non-derivative financial liabilities in EUR – Debt contract | Investments in subsidiaries which EUR is the functional currency | Foreign exchange - R\$ vs. EUR spot rate | (1)                          | (24,000)                     |   |
| <b>Total</b>     |   |  |  |                              | <b>96,000</b>                | <b>57,804</b>                             |

(1) In January 2016 it was settled the portion of debt designated as a hedge instrument.

The changes in the amounts related to net investment hedge as of December 31, 2016 are presented below:

|   | 12/31/2014 | Movement      | Realization | 12/31/2015    | Movement        | Realization | 12/31/2016      |
|---|------------|---------------|-------------|---------------|-----------------|-------------|-----------------|
| Net investment hedge accounting                                 |            | 20,148        |             | 20,148        | (77,952)        |             | (57,804)        |
| <b>Fair value of net investment hedge in foreign operations</b> |            | <b>20,148</b> |             | <b>20,148</b> | <b>(77,952)</b> |             | <b>(57,804)</b> |

On December 31, 2016 hedge relationships established by the Company found to be effective, according to prospective tests. Therefore, no reversal by ineffectiveness of the hedge was recorded.

#### 14.c) Sensitivity analysis

We present below the sensitivity analysis for currency risk and interest rate.

- **Sensitivity analysis of Derivative Financial Instruments and consolidated Foreign Exchange Exposure**

The Company considered scenarios 1 and 2 as 25% and 50% of deterioration for volatility of the currency, using as reference the closing exchange rate as of December 31, 2016.

The currencies used in the sensitivity analysis and its scenarios are shown below:

FS-67

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| Currency  | Exchange rate | Probable scenario | 12/31/2016 |            |
|-----------|---------------|-------------------|------------|------------|
|           |               |                   | Scenario 1 | Scenario 2 |
| USD       | 3.2591        | 3.1412            | 4.0739     | 4.8887     |
| EUR       | 3.4384        | 3.7230            | 4.2980     | 5.1576     |
| USD x EUR | 1.0541        | 1.1867            | 1.3176     | 1.5812     |

| Interest | Interest rate | 12/31/2016 |            |
|----------|---------------|------------|------------|
|          |               | Scenario 1 | Scenario 2 |
| CDI      | 13.63%        | 17.04%     | 20.45%     |
| TJLP     | 7.50%         | 9.38%      | 11.25%     |
| LIBOR    | 1.32%         | 1.65%      | 1.98%      |

The effects on income statement, considering the scenarios 1 and 2 are shown below:

| Instruments   | Notional amount    | Risk        | Probable scenario (*) | 12/31/2016         |                    |
|---|--------------------|-------------|-----------------------|--------------------|--------------------|
|   |                    |             |                       | Scenario 1         | Scenario 2         |
| Hedge accounting of exports   | 1,457,667          | Dollar      | 3,644                 | 1,187,670          | 2,375,340          |
| Currency position<br>(not including exchange derivatives above)                 | (3,198,191)        | Dollar      | (7,995)               | (2,605,806)        | (5,211,612)        |
| <b>Consolidated exchange position</b><br>(including exchange derivatives above) | <b>(1,740,524)</b> | Dollar      | <b>(4,351)</b>        | <b>(1,418,136)</b> | <b>(2,836,272)</b> |
| Net Investment hedge accounting   | 96,000             | Euro        | 42,768                | 82,520             | 165,040            |
| Currency position   | (86,060)           | Euro        | (38,340)              | (73,975)           | (147,950)          |
| <b>Consolidated exchange position</b><br>(including exchange derivatives above) | <b>9,940</b>       | <b>Euro</b> | <b>4,428</b>          | <b>8,545</b>       | <b>17,090</b>      |
| Dollar-to-euro swap   | 10,250             | Dollar      | (1,574)               | (4,389)            | (8,847)            |

(\*) The probable scenarios were calculated considering the following variations to the specified risks: Real x Dollar – depreciation of Real in 0.08% / Real x Euro – depreciation of Real in 12.96% / Dollar x Euro – depreciation of dollar in 12.41%. Source: Quotation from Central Bank of Brazil and Central Bank of Europe on 11/30/2017.

- **Sensitivity analysis of interest rate swaps**

| Instruments      | Notional amount | Risk | Probable scenario (*) | 12/31/2016 |            |
|------------------|-----------------|------|-----------------------|------------|------------|
|                  |                 |      |                       | Scenario 1 | Scenario 2 |
| <b>Foward DI</b> | 1,641,378       | CDI  | (121)                 | 55,930     | 111,860    |

(\*) The sensitivity analysis is based on the assumption of maintaining as probable scenario the market values as of December 31, 2016 recognized in the company's assets and liabilities.

FS-68

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- **Sensitivity analysis of changes in interest rates**

The Company considered the scenarios 1 and 2 as 25% and 50% of evolution for volatility of the interest as of December 31, 2016.

| Changes in interest rates | % Yearly | Impact on profit or loss |              |                       |            |            |
|---------------------------|----------|--------------------------|--------------|-----------------------|------------|------------|
|                           |          | Assets                   | Liabilities  | Probable scenario (*) | Scenario 1 | Scenario 2 |
| TJLP                      | 7.50     |                          | (1,070,088)  | (3,349)               | (20,064)   | (40,128)   |
| Libor                     | 1.32     |                          | (5,277,569)  | (44,586)              | (17,385)   | (34,770)   |
| CDI                       | 13.63    | 1,390,707                | (14,442,567) | (229,164)             | (444,742)  | (889,484)  |

(\*) The sensitivity analysis is based on the assumption of maintaining as probable scenario the market rates at December 31, 2016 recorded in the Company's assets and liabilities.

#### 14.d) Liquidity risk

It is the risk that the Company may not have sufficient net funds to honor its financial commitments as a result of mismatching of terms or volumes between scheduled receipts and payments.

To manage cash liquidity in domestic and foreign currency, assumptions of future disbursements and receipts are established and daily monitored by the treasury area. The payment schedules for the long-term portions of borrowings, financing and debentures are shown in note 13.

The following table shows the contractual maturities of financial liabilities, including accrued interest.

Consolidated

| At December 31, 2016                 | Less than one year | From one to two years | From two to five years | Over five years | Total      |
|--------------------------------------|--------------------|-----------------------|------------------------|-----------------|------------|
| Borrowings, financing and debentures | 2,150,951          | 12,762,088            | 11,543,898             | 4,076,816       | 30,533,753 |

|                                   |           |           |
|-----------------------------------|-----------|-----------|
| Derivative financial instruments  | 121       | 121       |
| Trade payables                    | 1,763,206 | 1,763,206 |
| Dividends and interest on capital | 484,570   | 484,570   |

#### IV - Fair values of assets and liabilities as compared to their carrying amounts

Financial assets and liabilities at fair value through profit or loss are recognized in current and non-current assets and liabilities, and any gains and losses are recognized as finance income or finance costs, respectively.

The amounts are recognized in the financial statements at their carrying amounts, which are substantially similar to those that would be obtained if they were traded in the market. The fair values of other long-term assets and liabilities do not differ significantly from their carrying amounts, except the amounts below.

The estimated fair values for certain consolidated long-term borrowings and financing were calculated at prevailing market rates, taking into consideration the nature, terms and risks similar to those of the recorded contracts, as below:

|                  |                        | <b>12/31/2016</b> |                        | <b>12/31/2015</b> |
|------------------|------------------------|-------------------|------------------------|-------------------|
|                  | <b>Carrying amount</b> | <b>Fair value</b> | <b>Carrying amount</b> | <b>Fair value</b> |
| Perpetual bonds  | 3,263,536              | 1,702,134         | 3,910,115              | 1,330,685         |
| Fixed rate notes | 5,666,506              | 4,907,339         | 7,086,760              | 3,915,310         |

- Credit risks

The exposure to credit risks of financial institutions complies with the parameters established by financial policy. The Company has as practice the detailed analysis of the patrimonial and financial situation of its clients, the establishment of a credit limit and permanent monitoring of its debit balance.

With regard to financial investments, the Company only made investments in institutions with low credit risk rated by rating agencies. Since part of the funds is invested in repurchase agreements that are backed by Brazilian Government Bonds, there is also exposure to the credit risk of the Brazilian State.

- Capital Management

The Company manages its capital structure in order to safeguard its ability to continue to offer shareholder returns and benefits to other stakeholders, as well as maintaining an ideal capital structure to reduce this cost.

FS-70

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**15. OTHER PAYABLES**

The group of other payables classified in current and non-current liabilities is comprised as follows:

|  | <b>Current</b>    |                   | <b>Consolidated<br/>Non-current</b> |                   |
|--|-------------------|-------------------|-------------------------------------|-------------------|
|  | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>12/31/2016</b>                   | <b>12/31/2014</b> |
| Payables to related parties (Note 20 b)                              | 10,927            | 6,798             |                                     |                   |
| Derivative financial instruments (Note 14 I)                         | 121               | 26,257            |                                     |                   |
| Dividends and interest on capital payable (Note 14 I) <sup>(1)</sup> | 484,570           | 464,982           |                                     |                   |
| Advances from customers  | 90,720            | 49,505            |                                     |                   |
| Taxes in installments (Note 17)                                      | 24,444            | 24,237            | 83,312                              | 87,890            |
| Profit sharing – employees   | 211,791           | 171,695           |                                     |                   |
| Freight provision  | 57,586            | 105,104           |                                     |                   |
| Provision for industrial restructuring                               | 13,000            | 122,854           |                                     |                   |
| Taxes payable  |                   |                   | 8,518                               | 7,805             |
| Other provision  | 23,162            | 30,784            |                                     |                   |
| Third party materials in our possession                              | 288               | 184               |                                     |                   |
| Other payables   | 105,115           | 70,617            | 39,307                              | 35,589            |
|  | <b>1,021,724</b>  | <b>1,073,017</b>  | <b>131,137</b>                      | <b>131,284</b>    |

(1) Dividends payable by the subsidiary CSN Mineração.

**16. INCOME TAX AND SOCIAL CONTRIBUTION****16.a) Income tax and social contribution recognized in profit or loss:**

The income tax and social contribution recognized in profit or loss for the year are as follows:

|  | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>Consolidated<br/>12/31/2014</b> |
|--|-------------------|-------------------|------------------------------------|
|  |                   | <b>Restated</b>   |                                    |
| <b>Income tax and social contribution income (expense)</b> |                   |                   |                                    |
| Current  |                   | (135,671)         | (528,170)                          |

|          |                  |                    |                |
|----------|------------------|--------------------|----------------|
|          | (206,178)        |                    |                |
| Deferred | (60,368)         | (2,767,545)        | 679,323        |
|          | <b>(266,546)</b> | <b>(2,903,216)</b> | <b>151,153</b> |

FS-71

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The reconciliation of consolidated income tax and social contribution expenses and income and the result from applying the effective rate to profit before income tax and social contribution are as follows:

|   | 12/31/2016       | 12/31/2015         | Consolidated<br>12/31/2014 |
|---|------------------|--------------------|----------------------------|
| <b>(Loss)/Profit before income tax and social contribution</b>            | <b>(576,951)</b> | <b>1,685,341</b>   | <b>(263,420)</b>           |
| Tax rate  | 34%              | 34%                | 34%                        |
| <b>Income tax and social contribution at combined statutory rate</b>      | <b>196,163</b>   | <b>(573,016)</b>   | <b>89,563</b>              |
| <b>Adjustment to reflect the effective rate:</b>                          |                  |                    |                            |
| Equity pick-up  | 22,072           | 394,492            | 112,594                    |
| Profit with differentiated rates or untaxed                               | (287,502)        | 798,603            | 1,772                      |
| Transfer pricing adjustment   | (63,638)         | (66,447)           | (2,350)                    |
| Tax loss carryforwards without recognizing deferred taxes                 | (821,920)        | (89,978)           | (29,259)                   |
| Limit of Indebtedness   | (35,391)         | (54,091)           | (13,170)                   |
| Unrecorded deferred taxes on temporary differences (1)                    | 643,990          | (1,133,091)        |                            |
| (Losses)/Reversal for deferred income and social contribution tax credits | 44,691           | (2,949,003)        |                            |
| Refis Effect and early discharge program                                  |                  | (2,586)            | (14,649)                   |
| Income tax and social contribution on foreign profit                      | (35,613)         | 72,376             |                            |
| Fair value gain of 59.76% interest held in Namisa                         |                  | 855,551            |                            |
| Goodwill amortization of Metalic  | 31,439           |                    |                            |
| Tax incentives  | 22,673           |                    |                            |
| Reversal of deferred tax in Namisa  |                  | (107,773)          |                            |
| Reversal of deferred tax in Prada   |                  | (46,681)           |                            |
| Other permanent deductions (additions)                                    | 16,490           | (1,571)            | 6,652                      |
| <b>Income tax and social contribution in profit for the period</b>        | <b>(266,546)</b> | <b>(2,903,216)</b> | <b>151,153</b>             |
|   | <b>-46%</b>      | <b>172%</b>        | <b>57%</b>                 |

(1) As from third quarter of 2015 the Company no longer records income tax and social contribution credits on tax losses and temporary differences.

**16.b) Deferred income tax and social contribution:**

The deferred income tax and social contribution recorded in non-current assets refer solely to tax losses and negative basis of social contribution and were limited to 30% of the deferred income tax and social contribution recorded in liabilities. The remaining balance of tax losses and negative basis of social contribution and the total temporary differences were written off and maintained in the Company's tax books for future utilization and amounted as of December 31, 2016, respectively, to R\$ 3,067,726 and R\$ 1,095,848.

|   | Opening Balance<br>12/31/2014 | Shareholders'<br>Equity |
|---|-------------------------------|-------------------------|
| <b>Deferred</b>   |                               |                         |
| Income tax losses   | 383,185                       | 11,629                  |
| Social contribution tax losses  | 75,662                        |                         |
| <b>Temporary differences</b>  | <b>1,918,318</b>              | <b>(58,032)</b>         |
| - Provision for tax social security, labor, civil and environmental risks | 226,741                       |                         |
| - Provision for environmental liabilities                                 | 71,925                        |                         |
| - Assets impairment losses  | 68,981                        |                         |
| - Inventory impairment losses   | 32,366                        |                         |
| - (Gains)/ losses in financial instruments                                | (6,419)                       |                         |
| - (Gains)/losses on available for sale financial assets                   | 618,291                       | 140,897                 |
| - Actuarial liability (pension and healthcare plan)                       | 163,627                       | 436                     |
| - Accrued supplies and services   | 68,483                        |                         |
| - Allowance for doubtful debts  | 29,852                        |                         |
| - Goodwil on merger   | (102,659)                     | (8,435)                 |
| - Unrealized exchange differences (1)                                     | 1,011,007                     |                         |
| - (Gain) in control loss on Transnordestina                               | (224,096)                     |                         |
| - Cash flow hedge accounting  | 41,015                        | 475,816                 |
| - Aquisition Fair Value SWT/CBL   | (222,454)                     | (80,260)                |
| - Deferred taxes non computed   |                               | (357,951)               |
| - Estimated (Losses)/reversals to deferred taxes credits                  |                               | (224,045)               |
| - Business Combination  |                               |                         |
| - Others  | 141,658                       | (4,490)                 |
| <b>Total</b>  | <b>2,377,166</b>              | <b>(46,403)</b>         |
| Total Deferred Assets   | 2,616,058                     |                         |
| Total Deferred Liabilities  | (238,892)                     |                         |
| <b>Total Deferred</b>   | <b>2,377,166</b>              |                         |

(1) The Company taxes the foreign exchange differences on a cash basis to calculate income tax and social contribution.

The Company has foreign subsidiaries in its corporate structure, for which profits are taxed at income tax in the countries where they are domiciled by lower rates than those prevailing in Brazil. From 2012 up to 2016 such foreign subsidiaries generated profits amounting to R\$ 1,743,368. If for some reason tax authorities understand that these profits are subject to additional taxation in Brazil in respect of income tax and social contribution, which if due, would total R\$ 580,332.

The Company, based on its legal counsel's opinion, assessed the likelihood of loss in a potential claiming by tax authorities which resulted in a possible risk of loss and, therefore, no provision was recognized in the financial statements.

### **16.c) Impairment test - Deferred taxes**

Annually, CSN performs a technical study to demonstrate if the generation of future taxable profits support the realization of tax credits.

This study is prepared at Entity level, in accordance with the Brazilian tax legislation, and is performed considering substantially the parent company's projections since the other group companies do not have material credits for purposes of this study. The parent company engages in the following businesses:

- Flat Steel Brazil;
- Long Steel Brazil;
- Cement;

The deferred tax assets on tax losses and temporary differences refers mainly to the following:

FS-73

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|                              | <b>Nature</b> | <b>Description</b>  |
|------------------------------|---------------|---|
| Tax losses                   |               | In recent periods, the Company started to incur in tax losses, mostly because of high financial expenses, as substantially all our loans and financings are on this level.  |
| Exchange difference expenses |               | Since 2012 the Company opted by the taxation on a cash basis. As the Company have operated without taxable profit, it would not make sense to use this deductibility year by year (accrual basis). As a result of the cash basis tax treatment, taxes are only due and expenses are only deductible at the time of debt settlement. |
| Losses on Usiminas shares    |               | The losses on Usiminas shares are recognized on an accrual basis, but the taxable event will occur only at the time of divestment, expected to occur in the period projected to compensate the deferred taxes.  |
| Other provisions             |               | Various accounting provisions are recognized on an accrual basis, but their taxation occurs only at the time of its realization, such as provisions for contingencies, impairment losses, environmental liabilities, etc.   |

The study is prepared based on the Company business plan of long-term in period reasonably estimated by management and considered several scenarios which vary according to different macroeconomic and operating assumptions.

The model for projection of taxable profit considers two main indicators:

- Pre-Tax Profit, reflecting our projected EBITDA plus depreciation, other income and expenses and financial income (expenses); and

- Taxable Profit, which is our pre-tax profit plus (minus) expenses and income items that are taxable at a time different from the time obtained on an accrual basis (temporary differences).

Taxable profit is obtained considering adjustments to pre-tax profits for the following main items:

- Foreign Exchange differences: are expected to be offset against future profits based on the original in liquidation debts owed to third parties and rescheduling of intercompany debts (to match the periods of greater profitability);
- Losses on Usiminas: the model assumed using the tax assets at the time of sale of the preferred shares (and realization of losses), exclusively;
- Other provisions: in view of the unpredictability of the occurrence of losses for which we have recorded provisions, we assumed an even 10% utilization per year; and
- Tax loss: utilization is limited under Brazilian law to 30% of the taxable income in a given year. Under Brazilian law income tax losses do not expire and may be used to offset future taxable income.

In addition, a sensitivity analysis of tax credits utilization considering a change in macroeconomic assumptions, operational performance and liquidity events took place.

On the other hand, as a negative factor, CSN has experienced income tax losses in most of the last five years resulting from the deterioration of the Brazilian political and macroeconomic environment, as well as due to the growth of financial leverage, which has unbalanced the relationship between operating and financial results.

In summary, the main positive and negative evidences we considered in making our projections were:

i. Positive aspects: Operating profit, non-expiration on tax losses benefit and extinguishment of the financial expenses arising from the elimination pre-existing relationship between Namisa and CSN, and dividends to be received from CSN Mineração.

ii. Negative aspects: history of tax losses, substantial generation of cash used for payment of debts and increase in iron ore costs since, from the business combination, the Company started purchasing iron ore at market price from CSN Mineração and, pursuant to the Brazilian legislation, the utilization of the tax loss is limited to 30% of the taxable profit in the year.

The existence of tax losses generated in the last years is a material negative evidence for being objectively verifiable, and, consequently, more weight is given to this evidence than to others which may have subjectivity features, according to the interpretation of IAS 12 standard.

The projections of future taxable profits for 2015 that supported the recording of deferred tax credits attributed an important weight to the sale of certain non-core assets whose technical reflection during 2016 indicated that the corresponding sales would not be subject to inclusion in these projections since they would be out of Management's control. This new understanding reduced the future taxable base for the period estimated in these projections.

Therefore, one considers that there are not sufficiently strong evidences that support the recording of the tax credits, limiting their recognition to 30% of the deferred tax liabilities.

FS-75

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**17. Tax installments programs**

The position of the REFIS debts (refinancing program) and other tax installment payment plans, were recorded in current and non-current liabilities, as mentioned in note 15, are as follows:

|                             | <b>Current</b>    |                   | <b>Consolidated<br/>Non-current</b> |                   |
|-----------------------------|-------------------|-------------------|-------------------------------------|-------------------|
|                             | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>12/31/2016</b>                   | <b>12/31/2015</b> |
| Federal REFIS Law 11.941/09 | 11,956            | 11,891            | 19,779                              | 19,247            |
| Federal REFIS Law 12.865/13 | 5,572             | 4,830             | 57,905                              | 56,661            |
| Other refinancing program   | 6,916             | 7,516             | 5,628                               | 11,982            |
|                             | <b>24,444</b>     | <b>24,237</b>     | <b>83,312</b>                       | <b>87,890</b>     |

**18. PROVISION FOR TAX, SOCIAL SECURITY, LABOR, CIVIL AND ENVIRONMENTAL RISKS AND JUDICIAL DEPOSITS**

Claims of different nature are being challenged at the appropriate courts. Details of the accrued amounts and related judicial deposits are as follows:

|                        | <b>Accrued liabilities</b> |                   | <b>Consolidated<br/>Judicial deposits</b> |                   |
|------------------------|----------------------------|-------------------|---|-------------------|
|                        | <b>12/31/2016</b>          | <b>12/31/2015</b> | <b>12/31/2016</b>                         | <b>12/31/2015</b> |
| Tax                    | 119,523                    | 143,852           | 62,035                                    | 82,472            |
| Social security        | 62,574                     | 70,174            | 48,614                                    | 46,193            |
| Labor                  | 485,422                    | 478,611           | 186,823                                   | 165,027           |
| Civil                  | 137,857                    | 128,451           | 23,179                                    | 24,634            |
| Environmental          | 7,716                      | 17,646            | 2,220                                     | 1,697             |
| Deposit of a guarantee |                            |                   | 8,387                                     | 8,519             |
|                        | <b>813,092</b>             | <b>838,734</b>    | <b>331,258</b>                            | <b>328,542</b>    |

The changes in the provision for tax, social security, labor, civil and environmental risks in the year ended December 31, 2016 were as follows:

| Nature          | 12/31/2015     | Additions      | Accrued charges | Net utilization of reversal | Consolidated          |
|-----------------|----------------|----------------|-----------------|-----------------------------|-----------------------|
|                 |                |                |                 |                             | Current + Non-current |
|                 |                |                |                 |                             | 12/31/2016            |
| Tax             | 143,852        | 5,293          | 10,533          | (40,155)                    | 119,523               |
| Social security | 70,174         |                | 1,392           | (8,992)                     | 62,574                |
| Labor           | 478,611        | 107,571        | 81,766          | (182,526)                   | 485,422               |
| Civil           | 128,451        | 5,977          | 17,300          | (13,871)                    | 137,857               |
| Environmental   | 17,646         | 2,647          | 683             | (13,260)                    | 7,716                 |
|                 | <b>838,734</b> | <b>121,488</b> | <b>111,674</b>  | <b>(258,804)</b>            | <b>813,092</b>        |

The provision for tax, social security, labor, civil and environmental liabilities was estimated by management and is mainly based on the legal counsel's assessment and only proceedings for which the risk is classified as probable loss are accrued. Additionally, this provision includes tax liabilities resulting from lawsuits filed by the Company, subject to SELIC (Central Bank's policy rate).

### **Tax lawsuits**

The main tax lawsuits assessed by the outside legal counsel as probable losses to which CSN or its subsidiaries are parties are as follows: (i) Municipal tax assessments (ISS) incident in lease contracts; (ii) ICMS Assessment Notice for the alleged nonpayment of this tax on product imports; (iii) Tax Forfeiture to collect ICMS reported but not paid; (iv) collection of income tax and social contribution for the offset of nonexistent tax credits.

### **Labor lawsuits**

As of December 31, 2016, the Group is a defendant in 7,953 labor lawsuits, for which a provision has been recorded in the amount of R\$485,422 (R\$478,611 as of December 31, 2015). Most of the claims relate to subsidiary and/or joint liability, salary equalization, health hazard premiums and hazardous duty premiums, overtime pay, difference in the 40% fine for the severance pay fund (FGTS) related to period prior to retirement and as a result of federal government economic plans, health care plan, indemnity claims resulting from alleged occupational diseases or on-the-job accidents, breaks between working hours, and differences in profit sharing from 1997 to 1999 and from 2000 to 2003.

During the year ended December 31, 2016 there were addition or write-off movements in labor lawsuits, due to court orders issued to terminate lawsuits and the constant revision of the Company's accounting estimates related to the provision for contingencies that take into consideration the different nature of the claims made, as required by the Company's accounting policies.

### **Civil lawsuits**

Among the civil lawsuits in which the Company is a defendant are claims for compensation. Generally these lawsuits result from on-the-job accidents, occupational diseases and contractual litigation related to the industrial activities of the Group, real estate actions, healthcare plan, and reimbursement of costs incurred in labor courts. For lawsuits involving civil matters, a provision has been recognized in the amount of R\$137,857 as of December 31, 2016 (R\$128,451 as of December 31, 2015).

### **Environmental lawsuits**

The environmental administrative/judicial proceedings filed against the Company include mainly administrative proceedings for alleged environmental irregularities and the regularization of environmental permits; at the judicial level, the Company is a party to actions collecting the fines imposed for such alleged environmental irregularities and public civil actions claiming regularization coupled with compensation, in most cases claiming environmental recovery. In general these proceedings arise from alleged damages to the environment related to the Company's industrial activities. For lawsuits involving environmental matters, a provision has been recognized in the amount of R\$7,716 as of December 31, 2016 (R\$17,646 as of December 31, 2015)

In July 2012 the Company received a legal notice in the lawsuit filed by the State Attorney's Office of the State of Rio de Janeiro, related to Volta Grande IV district in the city of Volta Redonda-RJ, claiming, among others, the removal of two industrial waste cells and 750 (seven hundred and fifty) homes. This lawsuit was initially classified as probable loss risk, however, due to the fact that injunctions were dismissed at the lower and higher courts, in particular, the removal of 750 (seven hundred and fifty) families, as well as because there is still no judicial expert investigation that measures the risks and, consequently, the scope of remediation, the classification of the degree of risk became possible, considering the current phase of the lawsuit.

As a result of the lawsuit mentioned in the paragraph above, after August 2012 the Company received legal notices related to some lawsuits filed by one of the dwellers of the Volta Grande IV district, who claims the payment of compensation for property damages and pain and suffering, whose amounts are illiquid at the moment, and this lawsuit is classified as possible loss risk.

On the same matter (Bairro Volta Grande IV), in August 2013 the Company received a subpoena about the lawsuits filed by the Federal Public Prosecution Office (Federal Courts), which has the same claim of the lawsuit filed by the State Public Prosecution Office, described above.

Currently, the conflict of jurisdiction between the two actions, between the State and Federal Courts, is discussed to prosecute and adjudicate the causes.

- Other administrative and judicial proceedings

The table below shows a summary of the carrying amounts of the main legal matters with possible risk of loss on December 31, 2016 and 2015.

|  | <b>12/31/2016</b> | <b>12/31/2015</b> |
|--|-------------------|-------------------|
| Tax assessment notice issued against the Company for an alleged sale of 40% of the shares of its joint venture NAMISA to a Japanese-Korean consortium (note 34),                                   | 8,415,142         | 7,743,501         |
| Income tax / Social contribution - Assessment Notice and Imposition of Fine (AIIM) - Disallowance of deductions of goodwill generated in the reverse incorporation of Big Jump by Namisa (note 34) | 2,457,855         | 2,250,833         |
| Assessment Notice and Imposition of Fine (AIIM) - Income tax / Social contribution - gross of interest on prepayment arising from supply contracts of iron ore and port services (1)               | 2,327,499         | 1,105,793         |
|  | 1,644,898         | 832,183           |

Assessment Notice and Imposition of Fine (AIIM) - Income tax / Social contribution – Due to profits from foreign subsidiaries (years 2008, 2010 and 2011) (2)

|  |                   |                   |
|--|-------------------|-------------------|
| Tax foreclosures - ICMS - Electricity credits  | 838,192           | 785,043           |
| Installments MP 470 - alleged insufficiency of tax losses  | 652,553           | 587,205           |
| Offset of taxes that were not approved by the Federal Revenue Service - IRPJ/CSLL, PIS/COFINS e IPI                            | 1,505,079         | 1,015,355         |
| Disallowance of the ICMS credits - Transfer of iron ore  | 570,997           | 516,581           |
| Disallowance of the ICMS credits - ICMS - acquisition of subsidiary (3)  |                   | 277,389           |
| ICMS - Refers to the transfer of imported raw material at an amount lower than the price disclosed in the import documentation | 279,511           | 252,112           |
| Disallowance of the tax losses arising on adjustments to the SAPLI   | 455,214           | 409,323           |
| Assessment Notice - ICMS - shipping and return merchandise for Industrialization   | 749,492           | 541,338           |
| Assessment Notice- Income tax- Capital Gain of CFM vendors located outside   | 185,249           | 170,835           |
| CFEM – Divergence on the understanding between CSN and DNPM on the calculation basis   | 348,512           | 349,908           |
| Other tax (federal, state, and municipal) lawsuits.  | 2,727,258         | 2,187,718         |
| Social security lawsuits   | 263,951           | 289,923           |
| Annulment action filed by CSN against CADE   | 96,316            | 70,423            |
| Other civil lawsuits   | 814,440           | 763,576           |
| Labor and social security lawsuits   | 1,138,155         | 1,032,678         |
| Environmental lawsuits   | 375,272           | 359,046           |
|  | <b>25,845,585</b> | <b>21,540,763</b> |

(1) The increase is due to an assessment notice received in December 2016.

(2) The increase is due to an assessment notice received in June 2016, related to the profits from foreign subsidiaries in 2011.

(3) Tax assessments were canceled due to a favorable decision to the Company in the 2nd administrative judicial level, the referred judgment occurred on February 15, 2016.

FS-77

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The assessments made by the legal counsel define these administrative and judicial proceedings as entailing risk of possible loss and, therefore, no provision was recorded in conformity with Management's judgment and accounting practices adopted in Brazil.

### **Environmental lawsuits**

The environmental processes present high complexity for estimating the amount at risk, should be taken into consideration, among various aspects, procedural development, the extent of damage and the projection of repairing costs.

There are other environmental processes for which it is not yet possible to assess the risk and contingency value due to the aforementioned complexity estimation, the peculiarities of the matters involving them and also their procedural steps.

## **19. PROVISION FOR ENVIRONMENTAL LIABILITIES AND ASSET RETIREMENT OBLIGATIONS**

The balance of the provision for environmental liabilities and asset retirement obligation - ARO are as follows:

|                              | <b>12/31/2016</b> | <b>Consolidated<br/>12/31/2015</b> |
|------------------------------|-------------------|------------------------------------|
| Environmental liabilities    | 273,475           | 262,290                            |
| Asset retirement obligations | 73,589            | 66,641                             |
|                              | <b>347,064</b>    | <b>328,931</b>                     |

### **19.a) Environmental liabilities**

As of December 31, 2016, there is a provision recognized for expenditures relating to environmental investigation and recovery services for potentially contaminated areas surrounding establishments in the States of Rio de Janeiro, Minas Gerais and Santa Catarina. Estimated expenditures will be reviewed periodically and the amounts already recognized will be adjusted whenever necessary. These are Management's best estimates based on the environmental remediation studies and projects. This provision

is recognized as other operating expenses.

The provision is measured at the present value of the expenditures required to settle the obligation, using a pretax rate that reflects current market assessments of the time value of money and the specific risks of the obligation. The increase in the obligation due to passage of time is recognized as other operating expenses.

FS-78

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The discount rate used to calculate the provision to present value through December 31, 2016 was 9.2% in real terms. The liability recognized is periodically updated based on the general market price index (IGP-M) for the period.

Some contingent environmental liabilities are monitored by environmental department were not recorded in provisions due to its characteristics, they do not meet the recognition criteria present in IAS 37.

### **19.b) Asset retirement obligations**

Asset retirement obligations refer to estimated costs for decommissioning, retirement or restoration of areas upon the termination of activities related to mining resources. The initial measurement is recognized as a liability discounted to present value and subsequently through increase in expenses over time. The asset retirement cost equivalent to the initial liability is capitalized as part of the carrying amount of the asset, being depreciated over the useful life of the asset.

In 2015, the Company completed a new certification of iron mineral reserves in the Casa de Pedra and Engenho mines. This certification, prepared by a specialized company, has certified reserves of 3,021 million tons of iron ore, which represents an increase of 85% compared to the amounts certified in the last audit on April 2007.

## **20. RELATED-PARTY BALANCES AND TRANSACTIONS**

### **20.a) Transactions with Holding Companies**

Vicunha Siderurgia S.A. is the Company's main shareholder, with 49.21% of the voting shares.

Also integrating the Company's control block are Rio Iaco Participações S.A., CFL Participações S.A. and Vicunha Têxtil, which hold interest in CSN's voting capital of 4.19%, 0.29% and 0.36%, respectively.



Vicunha steel's corporate structure is as follows:

Vicunha Steel S.A. – holds 67.35% of Vicunha Aços S.A.

CFL Participações S.A. – holds 13.06% of National Steel S.A. and holds 40% of Vicunha Steel S.A.

Rio Purus Participações S.A. – holds 19.59% of Vicunha Aços S.A. and holds 60% of Vicunha Steel S.A.

FS-79

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## 20.b) Transactions with subsidiaries, joint ventures, associates, exclusive funds and other related parties

- By transaction – Assets and Liabilities

|                                    | Current        |               | Non-Current    |                        | Consolidated Total |                        |
|------------------------------------|----------------|---------------|----------------|------------------------|--------------------|------------------------|
|                                    | 12/31/2016     | 12/31/2015    | 12/31/2016     | 12/31/2015<br>Restated | 12/31/2016         | 12/31/2015<br>Restated |
| <b>Assets</b>                      |                |               |                |                        |                    |                        |
| Trade receivables (note 7)         | 129,837        | 61,366        |                |                        | 129,837            | 61,366                 |
| Dividends receivable (note 7)      | 37,679         | 27,817        |                |                        | 37,679             | 27,817                 |
| Actuarial asset (note 9)           |                |               | 119,854        | 114,433                | 119,854            | 114,433                |
| Short-term investments/Investments | 315,319        |               |                |                        | 315,319            |                        |
| Loans (note 9)                     |                |               | 479,960        | 373,214                | 479,960            | 373,214                |
| Other receivables (note 9)         | 5,768          | 9,420         | 32,020         | 29,020                 | 37,788             | 38,440                 |
|                                    | <b>488,603</b> | <b>98,603</b> | <b>631,834</b> | <b>516,667</b>         | <b>1,120,437</b>   | <b>615,270</b>         |
| <b>Liabilities</b>                 |                |               |                |                        |                    |                        |
| <b>Other payables (Note 15)</b>    |                |               |                |                        |                    |                        |
| Accounts payable                   | 10,927         | 6,798         |                |                        | 10,927             | 6,798                  |
| Trade payables                     | 50,623         | 67,443        |                |                        | 50,623             | 67,443                 |
| Actuarial liabilities              |                |               | 28,004         | 25,294                 | 28,004             | 25,294                 |
|                                    | <b>61,550</b>  | <b>74,241</b> | <b>28,004</b>  | <b>25,294</b>          | <b>89,554</b>      | <b>99,535</b>          |

## By transaction – Statement of Income

|  | 12/31/2016  | 12/31/2015  | 12/31/2014  |
|--|-------------|-------------|-------------|
|  |             | Restated    |             |
| <b>Revenues</b>                              |             |             |             |
| Sales  | 878,992     | 725,285     | 1,177,860   |
| Interest (Note 26)                           | 60,964      | 65,084      | 50,631      |
| <b>Expenses</b>                              |             |             |             |
| Purchases                                    | (1,099,851) | (1,103,428) | (1,047,423) |
| Interest (Note 26)                           | (3,185)     | (1,333)     | (423,621)   |
| Foreign exchange and monetary variation, net | (18,398)    |             |             |

**(181,478)**

**(314,392)**

**(242,553)**

FS-80

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- **By company - Assets and Liabilities**

- **By company - Statement of Income**

(1) Transnordestina Logística S.A: Assets Refers mainly to contracts in R\$: interest equivalent to 102.0% and 115.0% of CDI. On December 31, 2016, the borrowings carrying amounts totaled to R\$459,762 (R\$222,727 as of December 31, 2015).

(2) Banco Fibra S.A: Assets: Refers to financial investments in CDB and Time deposit – at market rate

(3) Panatlantica:Receivables from the sale of steel products.

FS-81

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## 20.c) Other unconsolidated related parties

- **CBS Previdência**

The Company is the main sponsor of this non-profit entity established in July 1960, primarily engaged in the payment of benefits that supplement the official government Social Security benefits to participants. In its capacity as sponsor, CSN carries out transactions involving the payment of contributions and recognition of actuarial liabilities calculated in defined benefit plans, as detailed in note 28.

- **Fundação CSN**

The Company develops socially responsible policies concentrated today in Fundação CSN, of which it is the founding. The transactions between the parties relate to the operating and financial support for Fundação CSN to carry out the social projects undertaken mainly in the locations where the Company operates.

- **Banco Fibra**

Banco Fibra is under the control structure of Vicunha Siderurgia and the financial transactions carried out with this bank are limited to movements in checking accounts and financial investments in fixed-income securities.

On December 29, 2016, the Company entered into a Private Instrument of Purchase and Sale of Credit without Co-obligation with Banco Fibra SA in the amount of R\$ 171,394, whereby CSN sold credits arising from commercial transactions with its customers, whose average term was 37 days.

- **Companies under control of one of the Company's Board member**

- Ibis Participações e Serviços Ltd.
- Ibis Agrária Ltd.
- Partifib Projetos Imobiliários Ltd.
- Vicunha Imóveis Ltd.
- Vicunha Serviços Ltd.

#### 20.d) Key management personnel

The key management personnel with authority and responsibility for planning, directing and controlling the Company's activities, include the members of the Board of Directors and statutory directors. The following is information on the compensation of such personnel and the related balances as of December 31, 2016.

|  | <b>12/31/2016</b> | <b>12/31/2015</b>          | <b>12/31/2014</b> |
|--|-------------------|----------------------------|-------------------|
|  |                   | <b>Statement of Income</b> |                   |
| Short-term benefits for employees and officers | 71,852            | 47,578                     | 34,861            |
| Post-employment benefits                       | 306               | 311                        | 116               |
|  | <b>72,158</b>     | <b>47,889</b>              | <b>34,977</b>     |

The remuneration of key management personnel in 2016 includes payments of contracts with executives that were linked to parameters that were achieved mainly in the first quarter 2016.

#### 21. SHAREHOLDERS' EQUITY

**21.a) Paid-in capital**

Fully subscribed and paid-in capital as of December 31, 2016 and December 31, 2015 is R\$4,540,000 comprising 1,387,524,047 book-entry common shares without par value. Each common share entitles its holder to one vote in Shareholders' Meetings.

**21.b) Authorized capital**

The Company's bylaws in effect as of December 31, 2016 determine that the capital can be raised to up to 2,400,000,000 shares by decision of the Board of Directors.

**21.c) Legal reserve**

This reserve is recognized at the rate of 5% of the profit for each period, as provided for by Article 193 of Law 6.404/76, up to the ceiling of 20% of share capital.

**21.d) Ownership structure**

As of December 31, 2016, the Company's ownership structure was as follows:

|   | <b>12/31/2016</b>             |                      |                        | <b>12/31/2015</b>             |                      |                        |
|---|-------------------------------|----------------------|------------------------|-------------------------------|----------------------|------------------------|
|   | Number of<br>common<br>shares | % of total<br>shares | % of voting<br>capital | Number of<br>common<br>shares | % of total<br>shares | % of voting<br>capital |
| Vicunha Aços S.A.<br>Rio Iaco                       | 682,855,454                   | 49.21%               | 50.32%                 | 697,719,990                   | 50.29%               | 51.41%                 |
| Participações S.A. (*)                              | 58,193,503                    | 4.19%                | 4.29%                  | 58,193,503                    | 4.19%                | 4.29%                  |
| CFL Participações<br>S.A. (*)                       | 3,977,536                     | 0.29%                | 0.29%                  |                               | 0.00%                | 0.00%                  |
| Vicunha Textil S.A.<br>(*)                          | 4,927,000                     | 0.36%                | 0.36%                  |                               | 0.00%                | 0.00%                  |
| Caixa Beneficente<br>dos Empregados da<br>CSN - CBS | 20,143,031                    | 1.45%                | 1.48%                  | 20,143,031                    | 1.45%                | 1.48%                  |
|   | 8,794,890                     | 0.63%                | 0.65%                  | 8,794,890                     | 0.63%                | 0.65%                  |

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|                                     |                      |                |                |                      |                |                |
|-------------------------------------|----------------------|----------------|----------------|----------------------|----------------|----------------|
| NYSE (ADRs)                         | 323,546,664          | 23.32%         | 23.84%         | 336,435,464          | 24.25%         | 24.79%         |
| BM&FBovespa                         | 254,694,969          | 18.36%         | 18.77%         | 235,846,169          | 17.00%         | 17.38%         |
| <b>Total shares<br/>outstanding</b> | <b>1,357,133,047</b> | <b>97.81%</b>  | <b>100.00%</b> | <b>1,357,133,047</b> | <b>97.81%</b>  | <b>100.00%</b> |
| Treasury shares                     | 30,391,000           | 2.19%          |                | 30,391,000           | 2.19%          |                |
| <b>Total shares</b>                 | <b>1,387,524,047</b> | <b>100.00%</b> |                | <b>1,387,524,047</b> | <b>100.00%</b> |                |

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FS-83



(\*) Controlling group companies.

## 21.e) Treasury shares

The Board of Directors authorized various share buyback programs in order to hold shares in treasury for subsequent disposal and/or cancellation with a view to maximizing the generation of value to the shareholder through an efficient capital structure management, as shown in the table below:

(\*) There were no share buyback in this program.

(1) In 2014 the Board of Directors approved the cancelation of 70,446,061 treasury shares without change in the Company's share capital.

As of December 31, 2016, the position of the treasury shares was as follows:

| Quantity purchased<br>(in units) | Amount<br>paid for<br>the shares | Share price |           |          | Share<br>market price<br>as of 12/31/2016<br>(*) |
|----------------------------------|----------------------------------|-------------|-----------|----------|--|
|                                  |                                  | Minimum     | Maximum   | Average  |  |
| 30,391,000                       | R\$ 238,976                      | R\$<br>4.48 | R\$ 10.07 | R\$ 7.86 | R\$ 325,184                                      |

(\*) Using the last share average quotation on BM&FBovespa as of December 31, 2016 of R\$10,70 per share.

## 21.f) Policy on investments and payment of interest on capital and dividends

At a meeting held on December 11, 2000, the Board of Directors decided to adopt a profit distribution policy which, after compliance with the provisions in Law 6.404/76, as amended by Law 9.457/97, will entail the

distribution of all the profit to the Company's shareholders, provided that the following priorities are observed, irrespective of their order: (i) carrying out the business strategy; (ii) fulfilling its obligations; (iii) making the required investments; and (iv) maintaining a healthy financial situation of the Company.

FS-84

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**21.g) Earnings/(loss) per share:**

Basic earnings per share were calculated based on the profit/(loss) attributable to the owners of CSN divided by the weighted average number of common shares outstanding during the year, excluding the common shares purchased and held as treasury shares, as follows:

|                                   | <b>12/31/2016</b> | <b>12/31/2015</b>    | <b>12/31/2014</b> |
|-----------------------------------|-------------------|----------------------|-------------------|
|                                   |                   | <b>Common Shares</b> |                   |
| <b>(Loss) profit for the year</b> |                   |                      |                   |
| Continued operations              | (843,497)         | (1,217,875)          | (123,873)         |
| Discontinued operations           | (9,561)           | 1,911                | 11,606            |
|                                   | <b>(853,058)</b>  | <b>(1,215,964)</b>   | <b>(112,267)</b>  |
| Weighted average number of shares | 1,357,133,047     | 1,357,150,010        | 1,413,697,000     |
| <b>Basic and diluted EPS</b>      |                   |                      |                   |
| Continued operations              | (0.62153)         | (0.89738)            | (0.08762)         |
| Discontinued operations           | (0.00704)         | 0.00141              | 0.00821           |
|                                   | <b>(0.62857)</b>  | <b>(0.89597)</b>     | <b>(0.07941)</b>  |

The Company does not hold potential dilutable outstanding ordinary shares that could result in dilution of earnings per share.

**22. PAYMENT TO SHAREHOLDERS**

The Company's Bylaws provide the distribution of 25% minimum dividends of adjusted net income under the law, to the shareholders. The dividends are calculated in accordance with the Company's Bylaws and in accordance with the Brazilian Corporate Law.

On March 11, 2015, the Board of Directors approved the proposal distribution of dividends the profit reserve account (statutory reserve of working capital), in the amount of R\$275,000, corresponding to R\$ 0.202633043 per share. Dividends were paid as of March 19, 2015, without monetary update.

The following table shows the history of deliberate and paid dividends:

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| <b>Year</b> | <b>Approval Year</b>  | <b>Dividends</b> | <b>Total</b>   | <b>Year</b> | <b>Payment Year</b> | <b>Dividends</b> | <b>Total</b>   |
|-------------|-----------------------|------------------|----------------|-------------|---------------------|------------------|----------------|
| 2015        | 2015                  | 275,000          | 275,000        |             | 2015                | 274,917          | 274,917        |
|             | 2016 (*)              |                  |                | 2015        | 2015                | 274,918          | 274,918        |
|             |                       |                  |                |             | 2016                | 53               |                |
|             | <b>Total approved</b> | <b>275,000</b>   | <b>275,000</b> |             | <b>Total paid</b>   | <b>549,888</b>   | <b>549,835</b> |

(\*) There is no dividend deliberation on the year of 2016.

FS-85

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**23. NET SALES AND SERVICES REVENUE**

Net sales and services revenue is comprised as follows:

|                             | <b>12/31/2016</b>  | <b>12/31/2015<br/>Restated</b> | <b>12/31/2014</b>  |
|-----------------------------|--------------------|--------------------------------|--------------------|
| <b>Gross revenue</b>        |                    |                                |                    |
| Domestic market             | 10,206,195         | 10,212,748                     | 13,061,229         |
| Foreign market              | 9,571,630          | 7,725,818                      | 6,247,489          |
|                             | <b>19,777,825</b>  | <b>17,938,566</b>              | <b>19,308,718</b>  |
| <b>Deductions</b>           |                    |                                |                    |
| Sales returns and discounts | (190,415)          | (297,957)                      | (167,483)          |
| Taxes on sales              | (2,438,461)        | (2,378,912)                    | (3,015,003)        |
|                             | <b>(2,628,876)</b> | <b>(2,676,869)</b>             | <b>(3,182,486)</b> |
| <b>Net revenue</b>          | <b>17,148,949</b>  | <b>15,261,697</b>              | <b>16,126,232</b>  |

**24. EXPENSES BY NATURE**

|   | <b>12/31/2016</b> | <b>12/31/2015<br/>Restated</b> | <b>12/31/2014</b> |
|---|-------------------|--------------------------------|-------------------|
| Raw materials and inputs                  | (4,518,718)       | (4,858,070)                    | (5,125,417)       |
| Labor cost                                | (2,482,111)       | (1,887,735)                    | (1,716,995)       |
| Supplies                                  | (1,384,437)       | (1,095,576)                    | (1,097,940)       |
| Maintenance cost (services and materials) | (1,203,294)       | (1,069,404)                    | (1,072,664)       |
| Outsourcing services                      | (3,492,520)       | (3,284,238)                    | (2,544,553)       |

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|  |                     |                     |                     |
|--|---------------------|---------------------|---------------------|
| Depreciation, amortization and depletion (Note 11 a) | (1,278,816)         | (1,130,869)         | (1,245,131)         |
| Other  | (495,274)           | (314,730)           | (270,040)           |
|  | <b>(14,855,170)</b> | <b>(13,640,622)</b> | <b>(13,072,740)</b> |
| <b>Classified as:</b>                                |                     |                     |                     |
| Cost of sales and services                           | (12,640,042)        | (11,740,101)        | (11,592,382)        |
| Selling expenses                                     | (1,696,896)         | (1,430,189)         | (1,041,975)         |
| General and administrative expenses                  | (518,232)           | (470,332)           | (438,383)           |
|  | <b>(14,855,170)</b> | <b>(13,640,622)</b> | <b>(13,072,740)</b> |

FS-86

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**25. OTHER OPERATING INCOME (EXPENSES)**

|  | 12/31/2016         | 12/31/2015<br>Restated | 12/31/2014       |
|--|--------------------|------------------------|------------------|
| <b>Other operating income</b>  |                    |                        |                  |
| Indemnities/gains on lawsuits  | 26,871             | 5,189                  | 39,693           |
| Rentals and leases   | 1,483              | 1,150                  | 1,080            |
| Reversal of provisions   |                    | 5,020                  | 20,790           |
| Dividends received   | 567                | 5,794                  | 328              |
| Extemporaneous PIS/COFINS credits  | 203,504            | 234,287                |                  |
| Contractual fines  | 2,501              | 2,200                  | 7,963            |
| Gain on business combination (note 3) (*)  | 66,496             | 3,297,499              |                  |
| Actuarial pension plan   | 48,790             | 8,702                  | 166              |
| Gain on sales of assets held for sale (Note 4)                                     | 252,023            |                        |                  |
| Other revenues   | 61,274             | 50,506                 | 20,468           |
|  | <b>663,509</b>     | <b>3,610,347</b>       | <b>90,488</b>    |
| <b>Other operating expenses</b>  |                    |                        |                  |
| Taxes and fees   | (88,249)           | (13,999)               | (57,711)         |
| Write-off / (Provision) of judicial deposits                                       | (64,886)           | (24,145)               | (77,892)         |
| Expenses with environmental liabilities, net                                       | (5,023)            | (41,697)               | 160,980          |
| Expenses from tax, social security, labor, civil and environmental law suits       | (151,534)          | (273,890)              | (191,127)        |
| Contractual fines  | (16,624)           | (309)                  | (7,464)          |
| Depreciation of unused equipment and amortization of intangible assets (Note 11 a) | (43,681)           | (41,068)               | (36,354)         |
| Write off of PP&E and Intangible assets (Note 11 and 12)                           | (88,339)           | (6,466)                | (15,232)         |
| Losses /reversals estimated in inventories   | (17,236)           | 1,154                  | (10,396)         |
| Losses on spare parts  | (12,080)           | (55,790)               | (26,432)         |
| Studies and project engineering expenses   | (31,156)           | (38,138)               | (48,807)         |
| Research and development expenses  | (2,269)            | (3,363)                | (3,406)          |
| Advisory expenses  | (20,865)           | (15,888)               |                  |
| Healthcare plan expenses (Note 28 f)   | (80,489)           | (56,838)               | (54,319)         |
| Impairment of available-for-sale financial assets                                  |                    | (555,298)              | (205,000)        |
| REFIS effect - Law 11,941/09 and Law 12,865/13                                     |                    | (4,801)                | (37,308)         |
| Provisions/(Provision) for industrial restructuring                                | 96,390             | (122,854)              |                  |
| Hedge cash flow realized (Note 14 b)   | (77,444)           | (11,439)               |                  |
| Impairment of fair value of Transnordestina (Note 10b)                             | (387,989)          |                        |                  |
| Other expenses   | (85,256)           | (76,362)               | (46,659)         |
|  | <b>(1,076,730)</b> | <b>(1,341,191)</b>     | <b>(657,127)</b> |
| <b>Other operating income (expenses), net</b>                                      | <b>(413,221)</b>   | <b>2,269,156</b>       | <b>(566,639)</b> |

(\*) In 2016 refers to a gain in valuation at fair value of participation before the acquisition in the amount of R\$41,118 and a gain from a bargain purchase in the amount of R\$ 25,378.

FS-87

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**26. FINANCIAL INCOME (EXPENSES)**

|  | <b>12/31/2016</b>  | <b>12/31/2015<br/>Restated</b> | <b>12/31/2014</b>  |
|--|--------------------|--------------------------------|--------------------|
| <b>Financial income</b>                            |                    |                                |                    |
| Related parties (Note 20 b)                        | 60,964             | 65,084                         | 50,631             |
| Income from short-term investments                 | 301,401            | 212,826                        | 82,103             |
| Gain from derivative                               | 5,829              | 870                            |                    |
| Gain on repurchase of debt securities              | 146,214            | 166,642                        |                    |
| Other income (*)                                   | 129,182            | 42,298                         | 38,818             |
|  | <b>643,590</b>     | <b>487,720</b>                 | <b>171,552</b>     |
| <b>Financial expenses</b>                          |                    |                                |                    |
| Borrowings and financing - foreign currency        | (930,508)          | (938,047)                      | (718,281)          |
| Borrowings and financing - local currency          | (2,229,849)        | (2,116,149)                    | (1,806,568)        |
| Related parties (Note 20 b)                        | (3,185)            | (1,333)                        | (423,621)          |
| Capitalized interest (Notes 11 and 32)             | 215,794            | 166,366                        | 165,789            |
| Losses on derivatives                              | (362)              | (4,956)                        | (4,869)            |
| Interest, fines and late payment charges           | (38,002)           | (20,511)                       | (76,704)           |
| Commission and bank fees                           | (155,249)          | (81,594)                       |                    |
| PIS/COFINS over financial income                   | (39,154)           | (23,699)                       |                    |
| REFIS effect net- Law 11,941/09                    |                    |                                | (52,036)           |
| Other financial expenses (**)                      | (102,450)          | (105,050)                      | (187,688)          |
|  | <b>(3,282,965)</b> | <b>(3,124,973)</b>             | <b>(3,103,978)</b> |
| Inflation adjustment and exchange differences, net |                    |                                |                    |
| Inflation adjustments, net                         | 7,865              | 44,422                         | (109)              |
| Exchange differences, net                          |                    | (1,618,659)                    | (391,767)          |

|   |                    |                    |                    |
|---|--------------------|--------------------|--------------------|
|   | 921,310            |                    |                    |
| Exchange gain (losses) on derivatives                             | (812,227)          | 846,328            | 242,869            |
|   | <b>116,948</b>     | <b>(727,909)</b>   | <b>(149,007)</b>   |
| <b>Financial expenses, net</b>                                    | <b>(2,522,427)</b> | <b>(3,365,162)</b> | <b>(3,081,433)</b> |
| <b>Statement of gains and (losses) on derivative transactions</b> |                    |                    |                    |
| Dollar-to-CDI swap  |                    | (18)               | (12,735)           |
| Dollar-to-real swap (NDF)   |                    | 785,702            | 213,602            |
| Future Dollar   | (805,760)          | 25,381             |                    |
| Dollar-to-euro swap (NDF)   |                    | 39,668             | 33,397             |
| Dollar-to-euro swap   | (6,467)            | (4,405)            | 8,605              |
|   | <b>(812,227)</b>   | <b>846,328</b>     | <b>242,869</b>     |
| Swap libor x CDI  |                    |                    | (943)              |
| Swap Pré x CDI  | (299)              | (4,956)            | (3,926)            |
| Swap CDI x Pré  | (63)               | 870                |                    |
| Future DI   | 5,829              |                    |                    |
|   | <b>5,467</b>       | <b>(4,086)</b>     | <b>(4,869)</b>     |
|   | <b>(806,760)</b>   | <b>842,242</b>     | <b>238,000</b>     |

(\*) Refers substantially to discounts obtained and tax credits updates.

(\*\*) Refers substantially to discounts granted, IOF (tax on financial transactions) and withholding income taxes.

## 27. SEGMENT INFORMATION

According to the Group's structure, the businesses are distributed and managed in five operating segments as follows:

- **Steel**

The Steel Segment consolidates all the operations related to the production, distribution and sale of flat steel, long steel, metallic containers and galvanized steel, with operations in Brazil, United States, Portugal and Germany. The Segment supplies the following markets: construction, steel containers for the Brazilian chemical and food industries, home appliances, automobile and OEM (motors and compressors). The Company's steel units produce hot and cold rolled steel, galvanized and pre-painted steel of great durability. They also produce tinplate, a raw material used to produce metallic containers.

Overseas, Lusosider, which is based in Portugal, also produces metal sheets, as well as galvanized steel. CSN LLC in the U.S.A. meets local market needs by supplying cold rolled and galvanized steel. In January 2012, CSN acquired Stahlwerk Thüringen (SWT), a manufacturer of long steel located in Unterwellenborn, Germany. SWT is specialized in the production of shapes used for construction and has an installed production capacity of 1.1 million metric tons of steel/year.

In January 2014 the production of long steel products started with a capacity of 500,000 metric tons per year, which will consolidate the company as a source of complete construction solutions, complementing its portfolio of products with high value added in the steel chain.

- **Mining**

This segment encompasses the activities of iron ore and tin mining.

The high quality iron ore operations are located in the Iron Quadrilateral in MG, the Casa de Pedra mine in Congonhas, MG, as well as CSN Mineração S.A., which has its own mines and sells third party iron ore.

At the end of 2015, CSN and the Asian Consortium formalized a shareholders' agreement for the combination of assets linked to iron ore operations and the related logistics structure, forming a new company that has focused in mining of the Group activities from December 2015. In this context, the new company, called CSN Mineração S.A., holds the TECAR concession, the Casa de Pedra mine and all the shares of Namisa, which was incorporated on December 31, 2015.

Moreover, CSN controls a Estanho de Rondônia S.A. company mining units and tin casting.

- **Logistics**

- i. Railroad**

CSN has equity interests in three railroad companies: MRS Logística, which manages the former Southeast Network of Rede Ferroviária Federal S.A. (RFFSA), Transnordestina Logística S.A. and FTL - Ferrovia Transnordestina Logística S.A. , which operate the former Northeast Network of the RFFSA in the states of Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco and Alagoas.

- a) MRS**

The railroad transportation services provided by MRS are fundamental to the supply of raw materials and the shipment of final products. The total amount of iron ore, coal and coke consumed by the Presidente Vargas Mill as well as part of the steel produced by CSN for the domestic market and for export are carried by MRS.

The Southeast Brazilian railroad system, encompassing 1,674 kilometers of tracks, serves the tri-state industrial area of São Paulo-Rio de Janeiro-Minas Gerais, linking the mines located in Minas Gerais to the ports located in São Paulo and Rio de Janeiro, and the steel mills of CSN, Companhia Siderúrgica Paulista, or Cosipa, and Gerdau Açominas. Besides serving other customers, the railroad system carries iron ore from the Company's mines in Casa de Pedra, Minas Gerais, and coke and coal from the Itaguaí Port, in Rio de Janeiro, to Volta Redonda, and carries CSN's export products to the ports of Itaguaí and Rio de Janeiro. Its volumes of cargo carried account for approximately 28% of the total volume carried by the Southeast railroad system.

FS-89

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## **b) TLSA and FTL**

TLSA and FTL hold the concession of the former RFFSA's Northeast Network. The Northeast Network totals 4,238 km, divided into two sections: i) Network I, which comprises the São Luiz–Mucuripe, Arrojado–Recife, Itabaiana–Cabedelo, Paula Cavalcante–Macau–Recife, and Propriá–Jorge Lins (Network I) sections, whose concession goes until 2027, held by FTL; and ii) Network II, which comprises the Missão Velha–Salgueiro, Salgueiro–Trindade, Trindade–Eliseu Martins, Salgueiro–Porto de Suape, and Missão Velha–Porto de Pecém sections, whose concession goes until 2057 or until the return of the investment adjusted by 6.75% of the sections, held by TLSA.

The Network links up with the main ports in the region, offering an important competitive advantage by means of opportunities for combined transportation solutions and logistics projects tailored to customer needs.

## **II. Port Logistics**

The Port Logistics Segment consolidates the operation of the terminal built during the post-privatization period of the ports, Sepetiba Tecon.. The Sepetiba terminal features complete infrastructure to meet all the needs of exporters, importers and ship owners. Its installed capacity exceeds that of most other Brazilian terminals. It has excellent depths of 14.5 meters in the mooring berths and a huge storage area, as well as the most modern and appropriate equipment, systems and intermodal connections.

The Company's constant investment in projects in the terminals consolidates the Itaguaí Port Complex as one of the most modern in Brazil, at present with capacity for handling 440 thousand containers and 30 million metric tons per year of bulk cargo.

- **Energy**

CSN is one of the largest industrial consumers of electric power in Brazil. As energy is fundamental in its production process, the Company invests in assets for generation of electric power to guarantee its self-sufficiency. These assets are as follows: Itá hydroelectric power plant, in the State of Santa Catarina, with rated capacity of 1,450 MW, where CSN has a share of 29.5%; Igarapava hydroelectric power plant, Minas Gerais, with rated capacity of 210 MW, in which CSN holds 17.9% of the capital; and a thermoelectric co-generation Central unit with rated capacity of 238 MW, which has been operating at the UPV since 1999. For fuel the Central Unit uses the residual gases produced by the steel mill itself. Through

these three power generation assets, CSN obtains total rated capacity of 430 MW.

- **Cement**

The cement division consolidates the cement production, distribution and sale operations, which use the slag produced by the Volta Redonda plant's blast furnaces. In 2011, the clinker used in cement production was acquired from third parties; however, at the end that year, with the completion of the first stage of the Arcos Clinker plant, MG, this plant already supplied the milling needs of cement production plant, in Volta Redonda/ RJ.

In the second half of 2016, the Company started the operation of a new clinker kiln in Arcos, where the Company already operates a clinker kiln using its limestone of a company-owned mine and two cement mills.

The information presented to Management regarding the performance of each business segment is generally derived directly from the accounting records, combined with some intercompany allocations.

FS-90

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- **Sales by geographic area**

Sales by geographic area are determined based on the customers' location. On a consolidated basis, domestic sales are represented by revenues from customers located in Brazil and export sales are represented by revenues from customers located abroad.

- **Results per segment**

As from 2013, the Company no longer proportionately consolidates the joint ventures MRS and CBSI. For segment information preparation and presentation purposes, Management decided to maintain the proportionate consolidation of the joint ventures, as historically presented. For consolidated profit reconciliation purposes, the amounts of these companies were eliminated in the column "Corporate expenses/elimination".

From 2015, after the combination of mining assets (Casa de Pedra, Namisa and Tecar), the consolidated results include CSN Mineração.

FS-91

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(\* The ore sales volumes presented in this note take into consideration Company sales and the interest in its subsidiaries and joint ventures (In 2015 and 2014, Namisa at 60% interest).

- **EBITDA and Adjusted EBITDA**

Adjusted EBITDA is the measurement based on which the chief operating decision maker assesses the segment performance and the capacity to generate recurring operating cash, consisting of profit for the year less net finance income (costs), income tax and social contribution, depreciation and amortization, equity in results of affiliated companies, results of discontinued operations and other operating income (expenses), plus the proportionate EBITDA of joint ventures.

Even though it is an indicator used in segment performance measurement, EBITDA is not a measurement recognized by accounting practices adopted in Brazil or IFRS, it does not have a standard definition, and may not be comparable with measurements using similar names provided by other entities.

As required by IFRS 8, the table below shows the reconciliation of the measurement used by the chief operating decision maker with the results determined using the accounting practices:

|   | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>12/31/2014</b> |
|---|-------------------|-------------------|-------------------|
| Net income (loss) for the year                  | (853,058)         | (1,215,964)       | (112,267)         |
| Result from Discontinued Operations             | 9,561             | (1,911)           | (11,606)          |
| Depreciation/Amortization/Depletion (Note 11 a) | 1,278,816         | 1,130,869         | 1,240,263         |
| Income tax and social contribution (Note 16)    | 266,546           | 2,903,216         | (144,489)         |
| Finance income (cost) (Note 26)                 | 2,522,427         | 3,365,162         | 3,087,432         |
| <b>EBITDA</b>                                   | <b>3,224,292</b>  | <b>6,181,372</b>  | <b>4,059,333</b>  |
| Other operating income (expenses) (Note 25)     | 413,221           | (2,269,156)       | 567,525           |
| Equity in results of affiliated companies       |                   | (1,160,272)       | (331,160)         |

|  |                  |                  |                  |
|--|------------------|------------------|------------------|
|  | (64,918)         |                  |                  |
| Proportionate EBITDA of joint ventures | 502,345          | 499,475          | 433,472          |
| <b>Adjusted EBITDA (*)</b>             | <b>4,074,940</b> | <b>3,251,419</b> | <b>4,729,170</b> |

(\*) The Company discloses its adjusted EBITDA net of its share of investments and other operating income (expenses) because it understands that these should not be included in the calculation of recurring operating cash generation.

FS-92

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## 28. EMPLOYEE BENEFITS

The pension plans granted by the Company cover substantially all employees. The plans are administered by Caixa Beneficente dos Empregados da CSN ("CBS"), a private non-profit pension fund established in July 1960 which has as members the employees (and former employees) of the Company and some subsidiaries who joined the fund through an agreement, and the employees of CBS itself. The Executive Officers of CBS is formed by a CEO and two other executive officers, all appointed by CSN. The Decision-Making Board is the higher decision-making and guideline-setting body of CBS, presided over by the president of the pension fund and made up of ten members, six chosen by CSN in its capacity as main sponsor of CBS and four elected by the fund's participants.

Until December 1995, CBS Previdência administered two defined benefit plans based on years of service, salary and Social Security benefits. On December 27, 1995 the then Private Pension Secretariat ("SPC") approved the implementation of a new benefit plan, effective beginning that date, called Mixed Supplementary Benefit Plan ("Mixed Plan"), structured in the form of a variable contribution plan. Employees hired after that date can only join the new Mixed Plan. In addition, all active employees who were participants of the former defined benefit plans had the opportunity to switch to the new Mixed Plan.

As of December 31, 2016 CBS had 34,051 participants (33,065 as of December 31, 2015), of whom 19,442 were active contributors (18,430 as of December 31, 2015), 13,783 were retired employees (13,965 as of December 31, 2015), and 826 were related beneficiaries (670 as of December 31, 2015). Out of the total participants as of December 31, 2016, 11,751 belonged to the defined benefit plan, 13,735 to the mixed plan, 1,285 to the CBSPrev Namisa plan, and 7,280 to the CBSPrev plan.

The plan assets of CBS are primarily invested in repurchase agreements (backed by federal government securities), federal government securities indexed to inflation, shares, loans and real estate. As of December 31, 2016 and 2015 CBS held 20,143,031 common shares of CSN. The total plan assets of the entity amounted to R\$5.0 billion as of December 31, 2015 (R\$4.5 billion as of December 31, 2015). The administrators of the CBS funds seek to match plan assets with benefit obligations payable on a long-term basis. Pension funds in Brazil are subject to certain restrictions regarding their capacity for investment in foreign assets and, therefore, these funds invest mainly in Brazilian securities.

Plan Assets are all available assets and the benefit plans' investments, not including the amounts of debts to sponsors.

FS-93

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For the defined benefit plans 35% of the average salary” and “average salary supplementation plan, the Company holds a financial guarantee with CBS Previdência, the entity that administers said plans, to ensure their financial and actuarial balance, in the event of any future actuarial loss or actuarial gain.

As provided for in the prevailing law that governs the pension fund market, for the years ended December 31, 2016 and 2015, CSN did not have to pay the installments because the defined benefit plans posted actuarial gains for the period.

## **28.a) Description of the pension plans**

### **Plan covering 35% of the average salary**

This plan began on February 1, 1966 and is a defined benefit plan aimed at paying pensions (for length of service, special situations, disability or old age) on a lifetime basis, equivalent to 35% of the adjusted average of the participant’s salary for the last 12 months. The plan also guarantees sick pay to participants on Official Social Security leaves of absence and further ensures payments of savings fund, funeral allowance and pecuniary aid. This plan was discontinued on October 31, 1977 when the new supplementary plan based on average salary took effect.

### **Average salary supplementation plan**

This plan began on November 1, 1977 and is a defined benefit plan aimed at complementing the difference between the adjusted average of the participant’s salary for the last 12 months and the Official Social Security benefit for retirement, also on a lifetime basis. As in the 35% plan, there is coverage for the benefits of sick pay, death and pension. This plan was discontinued on December 26, 1995 with the creation of the mixed supplementary benefit plan.

### **Mixed supplementary benefit plan**

This plan began on December 27, 1995 and is a variable contribution plan. Besides the scheduled retirement benefit, it also covers the payment of risk benefits (pension paid while the participant is still

working, disability compensation and sick/accident pay). Under this plan, the retirement benefit is calculated based on the amount accumulated by the monthly contributions of the participants and sponsors, as well as on each participant's option for the manner in which they receive them, which can be lifetime (with or without continuity of pension for death) or through a percentage applied to the balance of the benefit-generating fund (loss for indefinite period). After retirement is granted, the plan takes on the characteristics of a defined benefit plan if the participant has chosen to receive his benefit in the form of monthly income for life. This plan was discontinued on September 16, 2013 when the CBS Prev plan became effective.

### **CBS Prev Plan**

The new CBS Prev Plan, which is a defined contribution plan, started on September 16, 2013. Under this plan, the retirement benefit is determined based on the accumulated amount by monthly contributions of participants and sponsors. To receive the benefit, each participant can opt for: (a) receiving part in cash (up to 25%) and the remaining balance through a monthly income through a percentage applied to the benefit-generating fund, not being applicable to death pension benefits, or (b) receive only a monthly income through a percentage applied to the benefit-generating fund.

With the creation of the CBS Prev Plan, the mixed supplementary benefit plan was discontinued for the entry of new participants as from September 16, 2013.

### **CBSPREV Namisa Plan**

It is a Defined Contribution plan with benefits of risks during the activity (projection of the balances in case of disability or death and sickness / accident allowed). It has been in operation since January 6, 2012, when it was created exclusively for the employees of Nacional Minérios S.A. After the corporate reorganization, which took place in 2016, other Sponsors joined this Plan, among them CSN Mineração S.A. (Previously Congonhas Minérios S.A.)

Under this plan, all the benefits offered are calculated based on the accumulated amount from the monthly contributions of participants and sponsors, and are paid through a percentage applied to the balance of the benefit generating fund. The CBSPREV Namisa Plan is open for new entrants, but a request for analysis to discontinue the plan is underway at Previc.

FS-94

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**28.b) Investment policy**

The investment policy establishes the principles and guidelines that will govern the investments of funds entrusted to the entity, in order to foster the security, liquidity and profitability required to ensure equilibrium between the plan's assets and liabilities based on an ALM (Asset Liability Management) study that takes into consideration the benefits of participants and beneficiaries for each plan.

The investment plan is reviewed annually and approved by the Decision-Making Board considering a five-year horizon, as established by resolution CGPC 7 of December 4, 2003. The investment limits and criteria established in the policy are based on Resolution 3,792/09 published by the National Monetary Council ("CMN").

**28.c) Employee benefits**

The actuarial calculations are updated at the end of each annual reporting period by outside actuaries and presented in the financial statements pursuant to IAS 19 Employee Benefits.

|                                       | <b>12/31/2016</b>      | <b>12/31/2015</b> | <b>12/31/2016</b>            | <b>12/31/2015</b> |
|---------------------------------------|------------------------|-------------------|------------------------------|-------------------|
|                                       | <b>Actuarial asset</b> |                   | <b>Actuarial liabilities</b> |                   |
| Pension plan benefits (Note 9 and 15) | (119,854)              | (114,433)         | 28,004                       | 25,294            |
| Post-employment healthcare benefits   |                        |                   | 691,262                      | 489,074           |
|                                       | <b>(119,854)</b>       | <b>(114,433)</b>  | <b>719,266</b>               | <b>514,368</b>    |

The reconciliation of employee benefits' assets and liabilities is as follows:

|   |                   |                   |
|---|-------------------|-------------------|
| Present value of defined benefit obligation | <b>12/31/2016</b> | <b>12/31/2015</b> |
|   | 2,872,442         | 2,430,381         |
| Fair value of plan assets                   | (3,193,493)       | (2,684,736)       |



|   |                  |                  |
|---|------------------|------------------|
| <b>Deficit (Surplus)</b>                                    | <b>(321,051)</b> | <b>(254,355)</b> |
| Restriction to actuarial assets due to recovery limitation  | 229,201          | 165,216          |
| <b>Liabilities (Assets), net</b>                            | <b>(91,850)</b>  | <b>(89,139)</b>  |
| Liabilities   | 28,004           | 25,294           |
| Assets  | (119,854)        | (114,433)        |
| <b>(Assets) liabilities recognized in the balance sheet</b> | <b>(91,850)</b>  | <b>(89,139)</b>  |

The movement in the present value of the defined benefit obligation during 2016 is as follows:

|  |                   |                   |
|--|-------------------|-------------------|
|  | <b>12/31/2016</b> | <b>12/31/2015</b> |
| <b>Present value of obligations at the beginning of the year</b> | <b>2,430,381</b>  | <b>2,508,441</b>  |
| Cost of service  | 1,244             | 1,807             |
| Interest cost  | 311,361           | 293,533           |
| Benefits paid  | (264,287)         | (235,541)         |
| Actuarial loss/(gain)  | 393,743           | (137,859)         |
| <b>Present value of obligations at the end of the year</b>       | <b>2,872,442</b>  | <b>2,430,381</b>  |

The movement in the fair value of the plan assets during 2016 is as follows:

|   |                    |                    |
|---|--------------------|--------------------|
|   | <b>12/31/2016</b>  | <b>12/31/2015</b>  |
| <b>Fair value of plan assets at the beginning of the year</b> | <b>(2,684,736)</b> | <b>(2,745,834)</b> |
| Interest income   | (345,521)          | (322,460)          |
| Benefits paid   | 264,287            | 235,830            |
| Expected return on plan assets (less interest income)         | (427,523)          | 147,728            |
| <b>Fair value of plan assets at the end of the year</b>       | <b>(3,193,493)</b> | <b>(2,684,736)</b> |

The amounts recognized in the income statement for the year ended December 31, 2016 and 2015 are comprised as follows:

|                                      |                   |                   |                   |
|--------------------------------------|-------------------|-------------------|-------------------|
|                                      | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>12/31/2014</b> |
| Cost of current service              | 1,244             | 1,807             | 10,114            |
| Interest cost                        | 311,361           | 293,533           | 255,573           |
| Expected return on plan assets       | (345,521)         | (322,460)         | (305,469)         |
| Interest on the asset ceiling effect | 22,189            | 18,422            | 39,733            |
|                                      | <b>(10,727)</b>   | <b>(8,698)</b>    | <b>(49)</b>       |

|   |                 |                |             |
|---|-----------------|----------------|-------------|
| Total unrecognized costs (income) (*)             | 7               | 4              | 117         |
| Total (income) recognized in the income statement | (10,734)        | (8,702)        | (166)       |
| <b>Total (income), net (*)</b>                    | <b>(10,727)</b> | <b>(8,698)</b> | <b>(49)</b> |
| FS-95   |                 |                |             |

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(\*) Effect of the limit of IAS 19 *Employee Benefits*.

The (cost)/income is recognized in the income statement in other operating expenses.

The movement in the actuarial gains and losses in 2016 is as follows:

|   | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>12/31/2014</b> |
|---|-------------------|-------------------|-------------------|
| Actuarial losses and (gains)  | <b>393,743</b>    | <b>(137,859)</b>  | <b>190,498</b>    |
| Return on plan assets (less interest income)                          | (427,523)         | 147,728           | 33,951            |
| Change in the asset's limit (excluding the interest revenue)          | 41,796            | (4,208)           | (224,590)         |
|   | <b>8,016</b>      | <b>5,661</b>      | <b>(141)</b>      |
| Actuarial losses and (gains) recognized in other comprehensive income | 8,023             | 5,665             | (117)             |
| Unrecognized actuarial (gains)  | (7)               | (4)               | (24)              |
| <b>Total cost of actuarial losses and (gains) (*)</b>                 | <b>8,016</b>      | <b>5,661</b>      | <b>(141)</b>      |

(\*) Actuarial loss results from the fluctuation in the investments comprised in the CBS's asset portfolio.

Breakdown of actuarial gains or losses, required by IAS 19:

|  | <b>12/31/2016</b> |
|--|-------------------|
| Loss due to change in demographic assumptions                | 9,131             |
| Loss due to change in financial assumptions                  | 331,280           |
| Loss due to experience adjustments                           | 53,332            |
| Return on plan assets (less interest income)                 | (427,523)         |
| Change in the asset's limit (excluding the interest revenue) | 41,796            |
| Actuarial losses and (gains)                                 | <b>8,016</b>      |

The main actuarial assumptions used were as follows:

|                               | <b>12/31/2016</b>   | <b>12/31/2015</b>   |
|-------------------------------|---|---|
| Actuarial financing method    | Projected unit credit   | Projected unit credit   |
| Functional currency           | Real (R\$)  | Real (R\$)  |
| Recognition of plan assets    | Fair value  | Fair value  |
| Nominal discount rate         | Milenium Plan: 11.68%, Plan 35% and<br>Supplementation: 11.72%  | Milenium Plan 35% and<br>Supplementation : 13.43%   |
| Inflation rate                | 5.50%   | 5.70%   |
| Nominal salary increase rate  | 6.56%   | 6.76%   |
| Nominal benefit increase rate | 5.50%   | 5.70%   |
| Rate of return on investments | Milenium Plan: 11.68%, Plan 35% and<br>Supplementation: 11.72%  | Milenium Plan 35% and<br>Supplementation : 13.43%   |
| General mortality table       | Milenium Plan, 35% and Average<br>Salary Supplementation Plans: AT<br>2000 segregated by gender (10%<br>smoothed)                                     | Milenium Plan, 35% and Average<br>Salary Supplementation Plans: AT<br>2000 segregated by gender (10%<br>smoothed)                                     |
| Disability table              | Light Median  | Light Median  |
| Disability mortality table    | Winklevoss - 1%   | Winklevoss - 1%   |
| Turnover table                | Millennium plan 5% p.a., nil for DB<br>plans<br>100% on the first date he/she becomes<br>eligible for programmed retirement<br>benefit under the plan | Millennium plan 5% p.a., nil for DB<br>plans<br>100% on the first date he/she<br>becomes eligible for programmed<br>retirement benefit under the plan |
| Retirement age                | 95% will be married at the time of<br>retirement, with the wife being 4 years<br>younger than the husband   | 95% will be married at the time of<br>retirement, with the wife being 4<br>years younger than the husband   |

FS-96

The assumptions related to the mortality table are based on published statistics and mortality tables. These tables represent an average life expectancy in years of employees who retire at the age of 65, as shown below:

|  | 12/31/2016     |                     | 12/31/2015     |                     |
|--|----------------|---------------------|----------------|---------------------|
|  | BD Plan<br>(*) | Milênio<br>Plan (*) | BD Plan<br>(*) | Milênio<br>Plan (*) |
| Longevity at age of 65 for current participants            |                |                     |                |                     |
| Male   | 20.45          | 19.55               | 20.45          | 19.55               |
| Female   | 23.02          | 22.17               | 23.02          | 22.17               |
| Longevity at age of 65 for current participants who are 40 |                |                     |                |                     |
| Male   | 42.69          | 41.59               | 42.69          | 41.59               |
| Female   | 46.29          | 45.30               | 46.29          | 45.30               |

(\*) The BD Plan is part of the 35% and Average Salary Supplementation Plan and the Milênio Plan is part of the Mixed Supplementary Benefit Plan.

Allocation of plan assets:

|                 | 12/31/2016       |                | 12/31/2015       |                |
|-----------------|------------------|----------------|------------------|----------------|
| Variable income | 62,904           | 1.97%          | 25,801           | 0.96%          |
| Fixed income    | 2,966,272        | 92.88%         | 2,492,324        | 92.83%         |
| Real estate     | 42,383           | 1.33%          | 124,306          | 4.63%          |
| Others          | 121,934          | 3.82%          | 42,305           | 1.58%          |
| <b>Total</b>    | <b>3,193,493</b> | <b>100.00%</b> | <b>2,684,736</b> | <b>100.00%</b> |

FS-97

Variable-income assets comprise mainly CSN shares.

Fixed-income assets comprise mostly debentures, Interbank Deposit Certificates ("CDI") and National Treasury Notes ("NTN-B").

Real estate refers to buildings appraised by a specialized asset appraisal firm. There are no assets in use by CSN and its subsidiaries.

For the pension plan, the expense as of December 31, 2016 was R\$35,798 (R\$35,539 as of December 31, 2015 and R\$ 34,649 as of December 31,2014).

#### **28.d) Expected contributions**

No contributions are expected to be paid to the defined benefit plans in 2017.

For the mixed supplementary benefit plan, contributions in the amount of R\$28,495 are forecasted to be paid in 2017 for the portion of defined contribution and R\$800 for the portion of defined benefit (risk benefit).

#### **28.e) Sensitivity analysis**

The quantitative sensitivity analysis regarding the significant assumptions for the pension plans as of December 31, 2016 is as follows:

**12/31/2016**

|   | Plan covering 35%<br>of the average<br>salary |          | Average salary<br>supplementation plan |          | Mixed<br>supplementary<br>benefit plan<br>(Milênio Plan) |          |
|---|---|----------|--|----------|--|----------|
| <b>Assumption: Discount rate</b>  |   |          |  |          |  |          |
| <b>Sensitivity level</b>  | 0.5%  | -0.5%    | 0.5%                                   | -0.5%    | 0.5%   | -0.5%    |
| Effect on current service cost and on interest on actuarial obligations | 136   | (163)    | 121                                    | (399)    | (953)  | 931      |
| Effect on present value of obligations                                  | (14,237)                                      | 15,342   | (69,598)                               | 73,654   | (40,065)   | 43,662   |
| <b>Assumption: Salary growth</b>  |   |          |  |          |  |          |
| <b>Sensitivity level</b>  | 0.5%  | -0.5%    | 0.5%                                   | -0.5%    | 0.5%   | -0.5%    |
| Effect on current service cost and on interest on actuarial obligations |   |          |  |          | 398  | (354)    |
| Effect on present value of obligations                                  |   |          | 1                                      | (1)      | 2,850  | (2,527)  |
| <b>Assumption: Mortality table</b>                                      |   |          |  |          |  |          |
| <b>Sensitivity level</b>  | 0.5%  | -0.5%    | 0.5%                                   | -0.5%    | 0.5%   | -0.5%    |
| Effect on current service cost and on interest on actuarial obligations | 1,905   | (1,779)  | 9,269                                  | (8,634)  | 5,360  | (4,919)  |
| Effect on present value of obligations                                  | 16,277  | (15,204) | 79,189                                 | (73,775) | 45,567   | (41,806) |
| <b>Assumption: Benefit adjustment</b>                                   |   |          |  |          |  |          |
| <b>Sensitivity level</b>  | 1.0%  | -1.0%    | 1.0%                                   | -1.0%    | 1.0%   | -1.0%    |
| Effect on current service cost and on interest on actuarial obligations | (1,063)                                       | 1,054    | (4,495)                                | 4,414    | (822)  | 810      |
| Effect on present value of obligations                                  | (9,038)                                       | 8,962    | (38,360)                               | 37,667   | (7,589)  | 7,444    |

The forecast benefit payments of the defined benefit plans for future years are as follows:

| Forecast benefit payments      | 2016             |
|--------------------------------|------------------|
| Year 1                         | 238,706          |
| Year 2                         | 256,136          |
| Year 3                         | 266,217          |
| Year 4                         | 276,345          |
| Year 5                         | 286,458          |
| Next 5 years                   | 1,579,822        |
| <b>Total forecast payments</b> | <b>2,903,684</b> |

FS-98

**28.f) Post-employment health care plan**

Refers to a healthcare plan created on December 1, 1996 exclusively for former retired employees, pensioners, those who received an amnesty, war veterans, widows of employees who died as a result of on-the-job accidents and former employees who retired on or before March 20, 1997 and their dependents. Since then, the healthcare plan does not allow the inclusion of new beneficiaries. The plan is sponsored by CSN .

The amounts recognized in the balance sheet were determined as follows:

|                              | <b>12/31/2016</b> | <b>12/31/2015</b> |
|------------------------------|-------------------|-------------------|
| Present value of obligations | 691,262           | 489,074           |
| <b>Liabilities</b>           | <b>691,262</b>    | <b>489,074</b>    |

The reconciliation of the healthcare liabilities is as follows:

|   | <b>12/31/2016</b> | <b>12/31/2015</b> |
|---|-------------------|-------------------|
| Actuarial liability at the beginning of the year  | 489,074           | 576,480           |
| Expenses recognized in income for the year        | 62,342            | 67,620            |
| Sponsor's contributions transferred in prior year | (70,411)          | (57,525)          |
| Recognition of loss/(gain) for the year           | 210,257           | (97,501)          |
| <b>Actuarial liability at the end of the year</b> | <b>691,262</b>    | <b>489,074</b>    |

For the post-employment healthcare plan, the expense as of December 31, 2016 was R\$80,490 (R\$56,838 as of December 31, 2015).

The actuarial gains and losses recognized in shareholders' equity are as follows:

|   | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>12/31/2014</b> |
|---|-------------------|-------------------|-------------------|
| Actuarial gain (loss) on obligation                   | 210,257           | (97,501)          | 94,998            |
| <b>Gain (loss) recognized in shareholders' equity</b> | <b>210,257</b>    | <b>(97,501)</b>   | <b>94,998</b>     |

The weighted average life expectancy based on the mortality table used to determined actuarial obligations is as follows:

| <b>12/31/2016</b> | <b>12/31/2015</b> |
|-------------------|-------------------|
|-------------------|-------------------|



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|  |       |       |
|--|-------|-------|
| Longevity at age of 65 for current participants            |       |       |
| Male   | 19.55 | 19.55 |
| Female   | 22.17 | 22.17 |
| Longevity at age of 65 for current participants who are 40 |       |       |
| Male   | 41.59 | 41.59 |
| Female   | 45.30 | 45.30 |

The actuarial assumptions used for calculating postemployment healthcare benefits were:

|   | 12/31/2016  | 12/31/2015  |
|---|---|---|
| <b>Biometrics</b>                             |   |   |
| General mortality table                       | AT 2000 segregated by gender<br>Winklevoss with death probabilities reduced by 1% in all ages | AT 2000 segregated by gender<br>Winklevoss with death probabilities reduced by 1% in all ages |
| Disability mortality table                    |   |   |
| <b>Financial</b>                              |   |   |
| Actuarial nominal discount rate               | 11.73%  | 13.43%  |
| Inflation                                     | 5.50%   | 5.70%   |
| Nominal increase in medical cost based on age | 0.5% - 3.00%real a.a  | 0.5% - 3.00%real a.a  |
| Nominal medical costs growth rate             | 8.93%   | 8.87%   |
| Average medical cost FS-99                    | 698,57  | 515,37  |

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**28.g) Sensitivity analysis**

The quantitative sensitivity analysis regarding the significant assumptions for the postemployment healthcare plans as of December 31, 2016 is as follows:

|  | <b>12/31/2016</b>      |              |
|--|------------------------|--------------|
|  | <b>Healthcare Plan</b> |              |
| <b>Sensitivity level</b>   |                        |              |
| <b>Effect on current service cost and on interest on actuarial obligations</b> |                        |              |
|  | <b>0.5%</b>            | <b>-0.5%</b> |
| Effect on present value of obligations   | 248                    | (336)        |
|  | (26,037)               | 28,353       |
|  |                        |              |
| <b>Sensitivity level</b>   |                        |              |
| <b>Effect on current service cost and on interest on actuarial obligations</b> |                        |              |
|  | <b>1.0%</b>            | <b>-1.0%</b> |
| Effect on present value of obligations   | 7,368                  | (6,306)      |
|  | 62,810                 | (53,756)     |
|  |                        |              |
| <b>Sensitivity level</b>   |                        |              |
| <b>Effect on current service cost and on interest on actuarial obligations</b> |                        |              |
|  | <b>1.0%</b>            | <b>-1.0%</b> |
| Effect on present value of obligations   | (4,186)                | 4,360        |
|  | (35,689)               | 37,165       |

The forecast benefit payments of the postemployment healthcare plans for future years are as follows:

| <b>Forecast benefit payments</b> | <b>2016</b>    |
|----------------------------------|----------------|
| Year 1                           | 65,068         |
| Year 2                           | 67,520         |
| Year 3                           | 69,890         |
| Year 4                           | 72,127         |
| Year 5                           | 74,198         |
| Next 5 years                     | 394,037        |
| <b>Total forecast payments</b>   | <b>742,840</b> |



**29. GUARANTEES**

The Company is liable for guarantees of its subsidiaries and joint ventures as follows:

|                                | Currency | Maturities                      | Borrowings        |                   | Tax foreclosure |               | Other         |               |
|--------------------------------|----------|---------------------------------|-------------------|-------------------|-----------------|---------------|---------------|---------------|
|                                |          |                                 | 12/31/2016        | 12/31/2015        | 12/31/2016      | 12/31/2015    | 12/31/2016    | 12/31/2015    |
| Transnordestina Logísitca      | R\$      | Up to 19/09/2056 and indefinite | 2,568,892         | 2,544,600         | 23,007          | 39,559        | 4,866         | 5,991         |
| FTL - Ferrovia Transnordestina | R\$      | 15/11/2020                      | 76,700            | 81,700            |                 |               |               | 450           |
| Sepetiba Tecon                 | R\$      | Indefinite                      |                   |                   |                 |               | 28,914        |               |
| Cia Metalurgica Prada          | R\$      | 10/02/2016 and indefinite       |                   |                   | 333             | 333           | 19,340        | 19,340        |
| CSN Energia Congonhas          | R\$      | Indefinite                      |                   |                   | 2,829           | 2,829         |               |               |
| Minérios                       | R\$      | 9/22/2022                       | 2,000,000         | 2,000,000         |                 |               | 2,520         |               |
| Fundação CSN                   | R\$      | Indefinite                      |                   | 1,003             |                 |               |               |               |
| Outros (**)                    | R\$      | 1/1/2016                        |                   | 12,000            |                 |               |               |               |
| <b>Total in R\$</b>            |          |                                 | <b>4,645,592</b>  | <b>4,639,303</b>  | <b>26,169</b>   | <b>42,721</b> | <b>55,640</b> | <b>25,781</b> |
| CSN Islands IX                 |          |                                 |                   |                   |                 |               |               |               |
| CSN Islands XI                 | US\$     | 9/21/2019                       | 750,000           | 750,000           |                 |               |               |               |
| CSN Islands XII                | US\$     | Perpetual                       | 1,000,000         | 1,000,000         |                 |               |               |               |
| CSN Resources                  | US\$     | 7/21/2020                       | 1,200,000         | 1,200,000         |                 |               |               |               |
| CSN Handel                     |          |                                 |                   |                   |                 |               |               |               |
| <b>Total in US\$</b>           |          |                                 | <b>2,950,000</b>  | <b>2,950,000</b>  |                 |               |               |               |
| CSN Steel S.L.                 | EUR      | 1/31/2020                       | 120,000           | 120,000           |                 |               |               |               |
| Lusosider Aços Planos          | EUR      | Perpetual                       | 25,000            | 25,000            |                 |               |               |               |
| <b>Total in EUR</b>            |          |                                 | <b>145,000</b>    | <b>145,000</b>    |                 |               |               |               |
| <b>Total in R\$</b>            |          |                                 | <b>10,112,913</b> | <b>12,135,468</b> |                 |               |               |               |
|                                |          |                                 | <b>14,758,505</b> | <b>16,774,771</b> | <b>26,169</b>   | <b>42,721</b> | <b>55,640</b> | <b>25,781</b> |

FS-101

**30. COMMITMENTS****30.a) Take-or-pay contracts**

As of December 31, 2016 and 2015, the Company was a party to take-or-pay contracts as shown in the following table:

| <b>Type of service</b>  | <b>Payments in the period (in millions of R\$)</b> |                  |                  |                |                |                |                   | <b>Total</b>     |
|---|--|------------------|------------------|----------------|----------------|----------------|-------------------|------------------|
|   | <b>2015</b>  | <b>2016</b>      | <b>2017</b>      | <b>2018</b>    | <b>2019</b>    | <b>2020</b>    | <b>After 2020</b> |                  |
| Transportation of iron ore, coal, coke, steel products, cement and mining products. | 197,646  | 873,186          | 767,031          | 767,031        | 767,031        | 746,150        | 3,672,166         | 6,719,409        |
| Supply of power, natural gas, oxygen, nitrogen, argon and iron ore pellets.         | 1,023,465  | 621,551          | 261,542          | 40,524         | 40,524         | 40,524         | 40,522            | 423,636          |
| Processing of slag generated during pig iron and steel production                   | 104,013  | 49,487           | 6,013            | 6,013          | 6,013          | 6,013          | 13,528            | 37,580           |
| Manufacturing, repair, recovery and production of ingot casting machine units.      | 127,776  | 36,765           | 15,005           | 5,665          | 5,665          |                |                   | 26,335           |
|   | <b>1,452,900</b>                                   | <b>1,580,989</b> | <b>1,049,591</b> | <b>819,233</b> | <b>819,233</b> | <b>792,687</b> | <b>3,726,216</b>  | <b>7,206,960</b> |

**30.b) Concession agreements**

Minimum future payments related to government concessions as of December 31, 2016 fall due according to the schedule set out in the following table:

| Concession                               | Type of service   | 2017           | 2018           | 2019           | 2020           | After 2020       | Total            |
|--|---|----------------|----------------|----------------|----------------|------------------|------------------|
| FTL (Ferrovia Transnordestina Logística) | 30-year concession granted on December 31, 1997, renewable for another 30 years, to develop public service and operating the railway system in northeastern Brazil. The northeastern railway system covers 4238 kilometers of railway network and operates in Maranhão, Piauí, Ceará, Paraíba, Pernambuco, Alagoas and Rio Grande do Norte. | 8,676          | 8,676          | 8,676          | 8,676          | 60,732           | <b>95,436</b>    |
| Tecar                                    | Concession to operate the TECAR, a solid bulk terminal, one of the four terminals that make up the Port of Itaguai, located in Rio de Janeiro. The concession was renewable and the agreement expires in 2047.  | 100,217        | 100,217        | 100,217        | 100,217        | 2,705,859        | <b>3,106,727</b> |
| Tecon                                    | 25-year concession started in July 2001, renewable for another 25 years to operate the container terminal at the Port of Itaguai.   | 28,996         | 28,996         | 28,996         | 28,996         | 159,478          | <b>275,462</b>   |
|  |   | <b>137,889</b> | <b>137,889</b> | <b>137,889</b> | <b>137,889</b> | <b>2,926,069</b> | <b>3,477,625</b> |

FS-102

### 30.c) Projects and other commitments

- **Transnordestina project**

The Transnordestina project which corresponds to rail network II of the Northeast Railway System, includes building 1,753 km of new, next-generation, wide-gauge tracks. The project posts a 52% progress which was estimated to be concluded in 2017 (completion period currently under review and discussion with the responsible agencies). The Company expects that the investments will permit Transnordestina Logística S.A. to transport of several products, such as iron ore, limestone, soy, cotton, sugarcane, fertilizers, oil, and fuel. The concessionaire of the Transnordestina project holds the concession through no longer than 2057, and can be terminated before this date if the minimum return agreed with the Government is reached. Transnordestina has already obtained the required environmental permits, purchased part of the equipment, contracted some of the services, and in certain regions the project is at an advanced implementation stage.

The sources of financing for the project are: (i) financing granted by Banco do Nordeste/ FNE and the BNDES, (ii) debentures issued by FDNE, (iii) Permanent Track Use contracts, and (iv) interest in the capital of CSN and public shareholders. The approved construction investment is R\$7,542,000 and the balance of disburseable funds will be adjusted using the IPCA as from April 2012. Should additional funds be required, they will be provided by CSN and/or third parties under Permanent Track Use contracts.

The budget to conclude the project is under review, currently it is being analyzed by the competent agencies (shareholders), and it is expected that the reviewed budget will be as follows: Missão Velha-Salgueiro: R\$0.4 billion, Salgueiro-Trindade: R\$0.7 billion, Trindade-Eliseu Martins: R\$2.4 billion, Missão Velha-Porto de Pecém: R\$3 billion, Salgueiro-Porto de Suape: R\$4.7 billion, amounting R\$ 11.2 billion.

The Company guarantees 100% of TLSA's financing granted by Banco do Nordeste/FNE and the BNDES, and 49.15% of the debentures issued by FDNE (includes the corporate guarantee of 48.47%, a collateral letter of 1.25% issued to BNB and the corporate guarantee of 1.25% pledged to BNB). Under the FDNE charter, approved by Federal Decree 6,952/2009, and the Investment Agreement entered into with the public shareholders/ financiers, 50% of the debentures may be converted into TLSA shares.

The Court of Auditors of the Union - TCU through a protective order issued in May 2016, regarding the case TC 012.179/2016, forbade new transfers of public resources to TLSA from Valec Engenharia, Construções e Ferrovias S.A., Fundo de Investimento do Nordeste – FINOR, Fundo Constitucional de Financiamento do Nordeste – FNE, Fundo de Desenvolvimento do Nordeste – FDNE, Banco Nacional de

Desenvolvimento Econômico e Social – BNDES and BNDES Participações S.A.– BNDESPar. After filing an appeal against the protective order and providing the necessary explanations, in June 2016 the order issued by TCU was withdrawn unanimously by the members of this court, with the continuity of investments planned having been restored.

FS-103

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By means of another protective order issued in January 2017, relating to the case TC 012.179/2016, the Court of Auditors of the Union forbade new transfers of public resources to TLSA by Valec Engenharia, Construções e Ferrovias S.A., Fundo de Investimento do Nordeste – FINOR, Fundo Constitucional de Financiamento do Nordeste – FNE, Fundo de Desenvolvimento do Nordeste – FDNE, Banco Nacional de Desenvolvimento Econômico e Social – BNDES and BNDES Participações S.A.– BNDESPar. The Company has provided the required clarifications to the TCU and has acted firmly in order that the decision can be repealed soon and the flow of investments planned can be restored.

There is an administrative procedure with the ANTT (National Land Transportation Agency) which evaluates the regular compliance with the obligations of the Concession Agreement corresponding to System II by Concessionaire TLSA. ANTT's technical area, in a unilateral opinion, understood that non-compliance with the contractual obligations by the Concessionaire is evidenced. The technical area's opinion is under evaluation and, if the irregularity is proven, ANTT may apply the applicable penalties, among them, forfeiture. The procedure is in fact finding phase and until the moment there is not final decision on the merit.

In relation to the rail network I, there is an administrative procedure with the National Agency for Land Transportation (“ANTT”) that analyzes the regular fulfillment of the obligations of the Concession Agreement by the Concessionaire FTL. In view of a unilateral analysis, ANTT informed that FTL would have failed to comply with the TAC (Conduct Adjustment Agreement) signed in 2013 as a result of the non-compliance with the production target for 2013. ANTT decided to file an administrative proceeding to investigate the non-compliance with the concession agreement and, if the irregularity is proved, it can apply the related penalties, among them the forfeiture. The Concessionaire has not appealed against such decision, and the proceeding is at the finding-of-facts stage and, so far, there is no final decision on the merit.

### **31. INSURANCE**

Aiming to properly mitigate risk and in view of the nature of its operations, the Company and its subsidiaries have taken out several different types of insurance policies. Such policies are contracted in line with the CSN Risk Management policy and are similar to the insurance taken out by other companies operating in the same lines of business as CSN and its subsidiaries. The risks covered under such policies include the following: Domestic Transportation, International Transportation, Life and Casualty, Health Coverage, Fleet Vehicles, D&O (Civil Liability Insurance for Directors and Officers), General Civil Liability, Engineering Risks, naming Risks, Export Credit, Insurance guarantee and Port Operator's Civil Liability.

In 2016, after negotiation with insurers and reinsurers in Brazil and abroad, an insurance policy was issued for the contracting of a policy of Operational Risk of Property Damages and Loss of Profits, with effect from October 30, 2016 to September 30, 2017. Under the insurance policy, the LMI (Maximum Limit of Indemnity) is US\$600 million and covers the following units and subsidiaries of the Company: Presidente Vargas steelworks, CSN Mineração, and CSN Mining. CSN takes responsibility for a range of retention of US\$375 million in excess of the deductibles for property damages and loss of profits.

In view of their nature, the risk assumptions adopted are not part of the scope of an audit of the financial statements and, accordingly, were not audited by our independent auditors.

FS-104

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**32. ADDITIONAL INFORMATION TO CASH FLOWS**

The following table provides additional information on transactions related to the statement of cash flows:

|  | <b>12/31/2016</b> | <b>12/31/2015</b> | <b>Consolidated<br/>12/31/2014</b> |
|--|-------------------|-------------------|------------------------------------|
| Income tax and social contribution paid                        | 456,227           | 134,920           | 98,040                             |
| Addition to PP&E with interest capitalization (note 11 and 26) | 215,794           | 166,366           | 165,789                            |
| Acquisition of fixed assets through loans.                     | 7,437             | 566,413           |                                    |
| Capitalization with advance to future capital increase         |                   | 3,229             |                                    |
|  | <b>679,458</b>    | <b>870,928</b>    | <b>263,829</b>                     |

**33. SUBSEQUENT EVENTS****Possible Proceedings**

- **Significant progress in Case 19515.723039/2012-79**

In February 2017, the Company was notified of the judgment of the Amendment of Judgment filed due the CARF's decision on case 19515.723039 / 2012-79, in which the Federal Revenue Service of Brazil challenges the capital gain on the alleged sale of 40% of NAMISA (currently CSN Mineração S.A.). The CARF, in short, agreed with the infringement notice. The Company, however, is taking of the lawfulness of the operation and, therefore, is evaluating the appropriate legal and procedural measures to reverse the decision. It is important to emphasize, finally, that this decision does not alter the assessment of loss on the case, which remains as possible, see note 18.

- **Significant progress in Case No. 19515.723053/2012-72**

The Superior Board of Tax Appeals of CARF ruled on 03/14/2017 a special appeal by the National Treasury against a previous decision favorable to Namisa, (currently CSN Mineração S.A.) filed in case No.

19515.723053 / 2012-72, in which the Federal Revenue Service of Brazil challenges the deductibility of goodwill amortization expenses arising from the operation carried out with the Asian Consortium in 2008. The CARF, in summary, agreed with the infringement notice. The Company, however, has absolute conviction of the lawfulness of the operation and, therefore, is taking legal measures. It is important to emphasize, finally, that this decision does not alter the assessment of loss of the case, which remains as possible, see note 18.

- **Independent investigation – Construction of the Long Steel Plant**

Considering the information from a Company's executive published in the press in April 2017, based on testimonials to the Court, the Audit Committee decided to engage a specialized forensic service to conduct an external independent investigation of the contractual relationship related to the construction of CSN's Long Steel Plant (contract on which there would have been alleged undue payments, in the form of bonus, in order to reimburse payments made to political parties), as well as to analyze the extent of the business relationships between the contracting parties. The conclusion of the investigation is that nothing from the testimonials referred to above was confirmed, and there are no contingencies deriving from the issues investigated. Consequently, the Company understands that there is no basis to justify the recording of any provision for losses or the disclosure of contingency. In October 31 2017, the Federal Police Department, attending to the request of the Federal Court, started an investigation with the purpose of raising the facts. Up to date, no findings have been raised.

- **Environmental Notification to interrupt the operations of Usina Presidente Vargas (UPV)**

On December 1<sup>st</sup>, 2017, we received from INEA an Environmental Notification to interrupt our operations in our main steel plant, Usina Presidente Vargas, in Volta Redonda-RJ as from December 10, 2017. The motivation of INEA was an allegation that we would not be fulfilling a TAC signed with the environmental authorities of the State of Rio de Janeiro. On December 7, 2017 we obtained an environmental preliminary authorization to continue our operations of UPV throughout 180 days, during which we should find a permanent solution with the environmental authorities on the matter.

FS-105

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*MRS Logística S.A.*

*Financial statements  
at December 31, 2016  
and independent auditor's report*

*Independent auditor's report*

To the Board of Directors and Stockholders

MRS Logística S.A.

## **Opinion**

We have audited the accompanying financial statements of MRS Logística S.A. (the "Company"), which comprise the balance sheet as at December 31, 2016 and the statements of income, comprehensive income, changes in equity and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of MRS Logística S.A. as at December 31, 2016, and its financial performance and its cash flows for the year then ended, in accordance with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

## **Basis for opinion**

We conducted our audit in accordance with Brazilian and International Standards on Auditing. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements established in the Code of Professional Ethics and Professional Standards issued by the Brazilian Federal Accounting Council, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## **Key audit matters**

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

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FS-R1

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MRS Logística S.A.

**Why it is a Key Audit Matter**

**How the matter was addressed in the audit**

**Revenue recognition (Notes 2.21 and 26)**

As of December 31, 2016, the balance of net revenue of services recognized by the Company is R\$ 3,279 million. The Company's revenue is comprised of shipping services, wagon stay and freight-sharing services. These services are provided based on medium- and long-term contracts, and fines are imposed for non-compliance with minimum annual load volumes for some customers.

This was a focus area of our audit due to the significance of revenue, the diversity of contractual conditions that involve multiple elements and the collection of fines on unfilled volumes, which are the basis for determining the recording of revenue from services and/or contractual fines in the correct period.

As audit response, our approach included, among others, the following key procedures:

We understood the relevant internal controls of the billing process and accounts receivable, as well as the relevant information technology systems that support these processes and controls.

We compared the information contained in the billing system with the revenue recognized in the accounting system.

We confirmed the balance of accounts receivable as of December 31, 2016, on a sample basis.

We checked, on a sample basis, the supporting documentation of the revenue, as well as the subsequent financial settlement to confirm that the amounts were recognized in the correct period.

For selected contracts, we confirmed that the revenue management calculations have incorporated the relevant aspects of the terms of the contracts.

The results of our procedures have given us adequate and sufficient audit evidence in relation to this topic.

**Provisions and contingent liabilities - tax, civil and labor (Notes 2.15, 3(d) and 23.1)**

Our audit procedures included, among others, the understanding of the relevant internal controls of the process of identification, evaluation, measurement and disclosure of provisions.

As described in Note 23.1, MRS is a defending party in tax, civil and labor lawsuits for which management records a provision based on estimates in cases where it considers that there is a probable loss.

Additionally, we obtained confirmations from the legal advisors contemplating the loss forecasts for the main lawsuits, as well as quantifying the estimated amounts as possible and probable loss.

Determining the likelihood of success in ongoing processes, as well as estimating expected probable losses, involves critical judgments by the Company's management, as it depends on future events that are not under management's control. In this context, the progress of these processes in the various applicable spheres and the complexity of the legal system may result in different outcomes than those expected by management and its legal advisors. In addition, changes in jurisprudence may also bring about changes in management's estimates.

We evaluated the reasonableness of management's and legal counsel's estimates for certain lawsuits, considering the evolution of these lawsuits and the existing case law, when applicable.

We consider that the criteria and assumptions adopted by management for determining the provision for contingent liabilities, as well as the disclosures, are consistent with the information received in the course of our audit.

FS-R2

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MRS Logística S.A.

**Other information accompanying the financial statements and the audit report**

The Company's management is responsible for the other information that comprises the Management Report.

Our opinion on the financial statements does not cover the Management Report, and we do not express any form of audit conclusion regarding such report.

In connection with the audit of the financial statements, our responsibility is to read the Management Report and, in doing so, consider whether this report is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement in the Management Report, we are required to report that fact. We have nothing to report in this regard.

FS-R3

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MRS Logística S.A.

**Responsibilities of management and those charged with governance for the financial statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting practices adopted in Brazil and with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

**Auditor's responsibilities for the audit of the financial statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Brazilian and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could

reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Brazilian and International Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

FS-R4

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MRS Logística S.A.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether these financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Rio de Janeiro, April 20, 2017

PricewaterhouseCoopers

Auditores Independentes

CRC 2SP000160/O-5 "F" RJ

Maria Salete Garcia Pinheiro

Contadora CRC 1RJ048568/O-7

FS-R5

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**MRS Logística S.A.****Balance sheet****at December 31****In thousands of reais**

| <u>ASSETS</u>                            | Notes | 2016      | 2015      |
|--|-------|-----------|-----------|
| <b>CURRENT</b>                           |       |           |           |
| Cash and cash equivalents                | 5     | 296,099   | 627,625   |
| Restricted cash                          | 6     | 49,065    | 43,850    |
| Trade accounts receivable                | 7     | 28,719    | 23,246    |
| Accounts receivable from related parties | 8     | 144,115   | 199,709   |
| Other receivables                        | 9     | 8,879     | 3,222     |
| Inventories                              | 10    | 91,906    | 101,356   |
| Taxes recoverable                        | 11    | 107,852   | 91,582    |
| Prepaid expenses                         | 12    | 24,699    | 15,419    |
| Derivative financial instruments         | 19    | -         | 136,577   |
| Other current assets                     | 13    | 7,452     | 6,854     |
| Total current assets                     |       | 758,786   | 1,249,440 |
| <b>NON-CURRENT</b>                       |       |           |           |
| Realizable in the long term              |       |           |           |
| Accounts receivable from related parties | 8     | 154,632   | -         |
| Other receivables                        | 9     | 49,968    | 47,627    |
| Taxes recoverable                        | 11    | 59,508    | 83,252    |
| Prepaid expenses                         | 12    | 160,089   | 156,532   |
| Derivative financial instruments         | 19    | 85,522    | 133,056   |
| Other non-current assets                 | 13    | 88,858    | 63,024    |
| Fixed assets                             | 14    | 6,179,512 | 6,146,957 |
| Intangible assets                        | 15    | 35,930    | 43,080    |



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|                          |           |           |
|--------------------------|-----------|-----------|
| Total non-current assets | 6,814,019 | 6,673,528 |
| TOTAL ASSETS             | 7,572,805 | 7,922,968 |

FS-1

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**MRS Logística S.A.****Balance sheet****at December 31****In thousands of reais**

(continued)

| <u>LIABILITIES AND EQUITY</u>         | Notes    | 2016      | 2015      |
|---------------------------------------|----------|-----------|-----------|
| <b>CURRENT</b>                        |          |           |           |
| Suppliers                             |          | 222,769   | 229,294   |
| Labor and social security obligations | 16       | 159,669   | 148,802   |
| Tax obligations                       | 17       | 150,609   | 65,228    |
| Loans and financing                   | 18       | 653,491   | 876,843   |
| Liabilities with related parties      | 8        | 3,031     | 18,966    |
| Dividend payable                      | 8 and 20 | 99,261    | 70,398    |
| Concession and lease payable          | 21       | 67,803    | 61,785    |
| Customer advances                     |          | 3,033     | 2,797     |
| Provisions                            | 23       | 24,664    | 23,488    |
| Other obligations                     |          | 9,480     | 7,328     |
| Total current liabilities             |          | 1,393,810 | 1,504,929 |
| <b>NON-CURRENT</b>                    |          |           |           |
| Suppliers                             |          | 18,492    | 21,828    |
| Loans and financing                   | 18       | 2,176,357 | 2,762,352 |
| Liabilities with related parties      | 8        | 16,303    | -         |
| Concession and lease payable          | 21       | 68,388    | 68,709    |
| Customer advances                     |          | 380       | 360       |
| Deferred taxes                        | 22.b     | 270,185   | 324,141   |
| Provisions                            | 23       | 322,667   | 252,730   |
| Other obligations                     |          | 3,415     | 3,795     |
| Total non-current liabilities         |          | 2,876,187 | 3,433,915 |

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|                              |                    |           |           |
|------------------------------|--------------------|-----------|-----------|
| TOTAL LIABILITIES            |                    | 4,269,997 | 4,938,844 |
| EQUITY                       |                    |           |           |
| Share capital                | <b>24.a</b>        | 1,487,756 | 1,392,974 |
| Reserve for capital increase | <b>32</b>          | 109,606   | 94,782    |
| Revenue reserves             |                    | 1,696,528 | 1,487,756 |
| Statutory reserve            | <b>24.c</b>        | 246,222   | 225,345   |
| Investment reserve           | <b>24.d and 32</b> | 1,351,139 | 1,262,411 |
| Proposed additional dividend | <b>24.e</b>        | 99,167    | -         |
| Carrying value adjustments   | <b>24.f</b>        | 8,918     | 8.612     |
| Total equity                 |                    | 3,302,808 | 2,984,124 |
| TOTAL LIABILITIES AND EQUITY |                    | 7,572,805 | 7,922,968 |

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

FS-2

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**MRS Logística S.A.****Statement of income****Years ended December 31****In thousands of reais, unless otherwise stated**

|  | Notes       | 2016        | 2015        | 2014        |
|--|-------------|-------------|-------------|-------------|
| NET SERVICES REVENUE                     | <b>26</b>   | 3,279,420   | 3,172,744   | 3,063,061   |
| Cost of services                         | <b>27</b>   | (2,208,786) | (2,095,614) | (2,014,374) |
| GROSS                                    |             | 1,070,634   | 1,077,130   | 1,048,687   |
| OPERATIONAL INCOME (EXPENSES)            |             |             |             |             |
| Selling                                  | <b>27</b>   | 37,977      | (10,322)    | (61,971)    |
| General and administrative               | <b>27</b>   | (214,623)   | (205,947)   | (212,533)   |
| Other operational income                 | <b>28</b>   | 307,626     | 150,916     | 215,428     |
| Other operational expenses               | <b>28</b>   | (291,167)   | (311,049)   | (223,660)   |
| PROFIT BEFORE FINANCIAL RESULT AND TAXES |             | 910,447     | 700,728     | 765,951     |
| FINANCIAL RESULT                         |             |             |             |             |
| Financial income                         | <b>29</b>   | 343,199     | 461,631     | 217,655     |
| Financial expenses                       | <b>29</b>   | (592,499)   | (710,621)   | (407,949)   |
|  |             | (249,300)   | (248,990)   | (190,294)   |
| PROFIT BEFORE TAXES                      |             | 661,147     | 451,738     | 575,657     |
| INCOME TAX AND SOCIAL CONTRIBUTION       |             |             |             |             |
| Current                                  | <b>22.a</b> | (297,221)   | (123,208)   | (149,484)   |
| Deferred                                 | <b>22.a</b> | 53,619      | (32,732)    | (47,412)    |
| NET PROFIT FOR THE YEAR                  |             | 417,545     | 295,798     | 378,761     |
| NUMBER OF SHARES                         |             |             |             |             |

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|                                    |             |          |         |          |
|------------------------------------|-------------|----------|---------|----------|
| AT THE END OF THE YEAR - THOUSANDS | <b>24.a</b> | 340,000  | 340,000 | 340,000  |
| PROFIT PER ONE THOUSAND SHARES     |             |          |         |          |
| AT THE END OF THE YEAR - R\$       |             | 1,228.07 | 869.99  | 1,114.00 |
| BASIC EARNINGS PER                 |             |          |         |          |
| COMMON SHARE                       | <b>25</b>   | 1.18     | 0.83    | 1.07     |
| PREFERRED SHARE                    | <b>25</b>   | 1.29     | 0.92    | 1.17     |
| DILUTED EARNINGS PER               |             |          |         |          |
| COMMON SHARE                       | <b>25</b>   | 1.18     | 0.83    | 1.07     |
| PREFERRED SHARE                    | <b>25</b>   | 1.29     | 0.92    | 1.17     |

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

FS-3

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**MRS Logística S.A.****Statement of comprehensive income****Years ended December 31****In thousands of reais**

|  | Notes       | 2016    | 2015    | 2014    |
|--|-------------|---------|---------|---------|
| NET PROFIT FOR THE YEAR                            |             | 666,845 | 295,798 | 378,761 |
| Items that will not be reclassified to the result  |             |         |         |         |
| Measurements of post-employment benefit obligation | <b>24.f</b> | (31)    | 464     | 2,318   |
| Tax effect   | <b>24.f</b> | 337     | 339     | (788)   |
| COMPREHENSIVE INCOME FOR THE YEAR                  |             | 667,151 | 296,601 | 380,291 |

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

FS-4

**MRS Logística S.A.****Statement of changes in equity****In thousands of reais**

|   | Notes       | Share capital | Allocation for the increase of share capital | Carrying value adjustments | Legal   | Retention for investments | Proposed dividends | Total     | Revenue reserves | Accumulated profits | Total     |
|---|-------------|---------------|--|----------------------------|---------|---------------------------|--------------------|-----------|------------------|---------------------|-----------|
| <b>ON JANUARY 1, 2014</b>                                   |             | 1,202,336     | 73,222                                       | 6,279                      | 191,617 | 1,083,941                 | 111,487            | 1,387,045 |                  | -                   | 2,668,882 |
| Comprehensive results for the year                          |             |               |  |                            |         |                           |                    |           |                  | -                   | -         |
| Net profit for the year                                     |             |               |  |                            |         |                           |                    |           |                  | 378,761             | 378,761   |
| Measurements of post-employment benefits obligation         | <b>24.f</b> |               |  | 1,530                      |         |                           |                    |           |                  | -                   | 1,530     |
| Total comprehensive income for the year                     |             | -             | -  | 1,530                      | -       | -                         | -                  | -         | -                | 378,761             | 380,291   |
| Stockholder contributions and distributions to stockholders |             |               |  |                            |         |                           |                    |           |                  |                     |           |
| Capital increase - approved 3/21/2014                       | <b>24.a</b> | 73,222        | (73,222)                                     |                            |         |                           |                    |           |                  | -                   | -         |

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|  |             |           |           |        |           |           |           |           |           |           |
|--|-------------|-----------|-----------|--------|-----------|-----------|-----------|-----------|-----------|-----------|
| Appropriation of net profit for the year                                 |             |           |           |        |           |           |           |           |           |           |
| Board of directors' proposal for reserve allocation for capital increase | <b>24.a</b> | 117,416   |           |        | (117,416) |           | (117,416) |           |           | -         |
| Dividends and interest on net equity                                     |             |           |           |        |           | (111,487) | (111,487) |           | (111,487) |           |
| Additional proposed dividends - approved 4/24/2014                       |             |           |           |        |           |           |           |           |           |           |
| Proposed dividends   |             |           |           |        |           | 53,973    | 53,973    | (143,929) | (89,956)  |           |
| Transfer among reserves  |             |           |           |        |           |           |           |           |           |           |
| . Statutory reserve  | <b>24.c</b> |           |           | 18,938 |           |           | 18,938    | (18,938)  |           | -         |
| . Retention for investments  | <b>24.d</b> |           |           |        | 215,894   |           | 215,894   | (215,894) |           | -         |
| Total of stockholder contributions and distributions to stockholders     |             | 73,222    | 44,194    | -      | 18,938    | 98,478    | (57,514)  | 59,902    | (378,761) | (201,443) |
| <b>BALANCE ON DECEMBER 31, 2014</b>                                      |             | 1,275,558 | 117,416   | 7,809  | 210,555   | 1,182,419 | 53,973    | 1,446,947 | -         | 2,847,730 |
| Comprehensive income for the year  |             |           |           |        |           |           |           |           | -         | -         |
| Net profit for the year  |             |           |           |        |           |           |           | 295,798   | 295,798   |           |
| Measurements of post-employment benefits obligation                      | <b>24.f</b> |           |           | 803    |           |           |           |           | -         | 803       |
| Total comprehensive income for the year                                  |             | -         | -         | 803    | -         | -         | -         | -         | 295,798   | 296,601   |
| Stockholder contributions and distributions to stockholders              |             |           |           |        |           |           |           |           |           |           |
| Capital increase - approved 3/18/2015                                    | <b>24.a</b> | 117,416   | (117,416) |        |           |           |           |           | -         | -         |
| Discretionary dividends - approved                                       |             |           |           |        |           | (35,982)  | (35,982)  |           | (35,982)  |           |



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12/15/2015

Appropriation of net profit for the year

Board of directors' proposal for reserve allocation for capital

|  |             |           |          |        |          |           |          |           |           |           |
|--|-------------|-----------|----------|--------|----------|-----------|----------|-----------|-----------|-----------|
| increase   | <b>24.a</b> | 94,782    |          |        | (94,782) |           | (94,782) |           | -         |           |
| Dividends and interest on net equity                                 |             |           |          |        |          |           |          |           |           |           |
| Additional proposed dividends - approved                             |             |           |          |        |          |           |          |           |           |           |
| 4/28/2015  |             |           |          |        | (53,973) |           | (53,973) |           | (53,973)  |           |
| Proposed dividends   |             |           |          |        |          |           | -        | (70,252)  | (70,252)  |           |
| Transfer among reserves  |             |           |          |        |          |           |          |           |           |           |
| . Statutory reserve  | <b>24.c</b> |           |          | 14,790 |          |           | 14,790   | (14,790)  | -         |           |
| . Retention for investments  | <b>24.d</b> |           |          |        | 210,756  |           | 210,756  | (210,756) | -         |           |
| Total of stockholder contributions and distributions to stockholders |             | 117,416   | (22,634) | -      | 14,790   | 79,992    | (53,973) | 40,809    | (295,798) | (160,207) |
| <b>BALANCE ON DECEMBER 31, 2015</b>                                  |             | 1,392,974 | 94,782   | 8,612  | 225,345  | 1,262,411 | -        | 1,487,756 | -         | 2,984,124 |

FS-5

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**MRS Logística S.A.****Statement of changes in equity****In thousands of reais****(continued)**

|   | Notes       | Share capital | Allocation for the increase of share capital | Carrying value adjustments | Legal   | Revenue reserves          |                    |           | Accumulated profits | Total     |
|---|-------------|---------------|--|----------------------------|---------|---------------------------|--------------------|-----------|---------------------|-----------|
|   |             |               |  |                            |         | Retention for investments | Proposed dividends | Total     |                     |           |
| <b>BALANCE ON DECEMBER 31, 2015</b>                         |             | 1,392,974     | 94,782                                       | 8,612                      | 225,345 | 1,262,411                 | -                  | 1,487,756 | -                   | 2,984,124 |
| Comprehensive income for the year                           |             |               |  |                            |         |                           |                    |           | -                   | -         |
| Net profit for the year                                     |             |               |  |                            |         |                           |                    |           | 417,545             | 417,545   |
| Measurements of post-employment benefits obligation         | <b>24.f</b> |               |  | 306                        |         |                           |                    |           | -                   | 306       |
| Total comprehensive income for the year                     |             | -             | -  | 306                        | -       | -                         | -                  | -         | 417,545             | 417,851   |
| Stockholder contributions and distributions to stockholders |             |               |  |                            |         |                           |                    |           |                     |           |
| Capital increase - approved 3/18/2016                       | <b>24.a</b> | 94,782        | (94,782)                                     |                            |         |                           |                    | -         |                     | -         |
| Appropriation of net profit for the year                    |             |               |  |                            |         |                           |                    |           |                     |           |
| Board of directors' proposal for reserve allocation         | <b>32</b>   |               | 109,606                                      |                            |         | (109,606)                 |                    | (109,606) |                     | -         |

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|  |             |           |         |        |         |           |         |           |           |           |
|--|-------------|-----------|---------|--------|---------|-----------|---------|-----------|-----------|-----------|
| for capital increase   |             |           |         |        |         |           |         |           |           |           |
| Dividends and interest on net equity                                 |             |           |         |        |         |           |         |           |           |           |
| Proposed additional dividends  | <b>24.e</b> |           |         |        |         | 99,167    | 99,167  | (99,167)  |           |           |
| Proposed dividends   | <b>20</b>   |           |         |        |         |           | -       | (99,167)  | (99,167)  |           |
| Transfer among reserves  |             |           |         |        |         |           |         |           |           |           |
| . Statutory reserve  | <b>24.c</b> |           |         | 20,877 |         |           | 20,877  | (20,877)  |           | -         |
| . Retention for investments  | <b>24.d</b> |           |         |        | 198,334 |           | 198,334 | (198,334) |           | -         |
| Total of stockholder contributions and distributions to stockholders |             | 94,782    | 14,824  | -      | 20,877  | 88,728    | 99,167  | 208,772   | (417,545) | (99,167)  |
| <b>BALANCE ON DECEMBER 31, 2016</b>                                  |             | 1,487,756 | 109,606 | 8,918  | 246,222 | 1,351,139 | 99,167  | 1,696,528 | -         | 3,302,808 |

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

**MRS Logística S.A.****Statement of cash flows****Years ended December 31****In thousands of reais**

|   | Notes      | 2016     | 2015<br>Re-presented<br>Note 2.2 | 2014<br>Re-presented<br>Note 2.2 |
|---|------------|----------|----------------------------------|----------------------------------|
| <b>CASH FLOW OF OPERATING ACTIVITIES</b>  |            |          |                                  |                                  |
| Profit before IRPJ and CSLL   |            | 661,147  | 451,738                          | 575,657                          |
| Adjustments to reconcile net profit for the year with cash generated by operating activities: |            |          |                                  |                                  |
| Results on disposal of fixed assets   |            | (14,317) | (49)                             | (268)                            |
| Depreciation and amortization   | 27         | 559,765  | 515,408                          | 447,457                          |
| Monetary/exchange rate variation and financial charges  |            | 298,674  | 340,893                          | 233,009                          |
| Amortization, advance payment, concession and leasing   | 12 and 15  | 9,261    | 9,261                            | 9,261                            |
| Residual value of fixed assets written-off  | 14         | 22,715   | 11,325                           | 39,682                           |
| Provisions  | 23         | 71,113   | 125,602                          | 25,416                           |
| Prepaid expenses amortization   | 12         | 10,292   | 8,690                            | 5,110                            |
|   | 10, 11 and |          |                                  |                                  |
| Provision for asset losses  | 14         | (2,307)  | 25,841                           | (20,741)                         |
| Estimated provision for losses in doubtful debt   | 7 and 9    | (49,085) | -                                | 51,793                           |
| Others  |            | (59)     | 999                              | 369                              |
| Cash provided by operations   |            | 906,052  | 1,037,970                        | 791,088                          |
| (Increase) reduction in assets:   |            |          |                                  |                                  |
| Trade accounts receivable   | 7 and 9    | 31,230   | (15,830)                         | 20,696                           |
| Receivables from related parties  | 8          | (99,038) | 13,338                           | (76,416)                         |
| Inventories   | 10         | 8,394    | (4,076)                          | 11,230                           |
| Recoverable taxes   | 11         | 3,409    | (38,718)                         | 77,169                           |
| Prepaid expenses  | 12         | (31,947) | (20,754)                         | (10,714)                         |
| Other prepaid assets  |            | (16,734) | 232                              | (12,627)                         |

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(Increase) reduction in liabilities:

|  |             |           |           |           |
|--|-------------|-----------|-----------|-----------|
| Concession and lease payable               | <b>21</b>   | 5,697     | 4,746     | (1,204)   |
| Suppliers                                  |             | (46,353)  | 1,054     | (8,803)   |
| Payables to related parties                | <b>8</b>    | 368       | 14,286    | (6,219)   |
| Tax obligations                            | <b>17</b>   | 4,002     | 1,177     | 823       |
| Labor and social security obligations      | <b>16</b>   | 10,867    | (3,106)   | 3,814     |
| Provisions                                 | <b>24.f</b> | (31)      | 464       | (2,318)   |
| Taxes on profit                            |             | (215,842) | (110,787) | (186,931) |
| Payment of interest on loans and financing |             | (227,825) | (209,932) | (194,749) |
| Other accounts payable                     |             | (27,518)  | (30,047)  | 7,839     |
| Net cash provided by operating activities  |             | 965,878   | 1,091,755 | 988,335   |

FS-7

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**MRS Logística S.A.****Statement of cash flows****Years ended December 31****In thousands of reais****(continued)**

|  | Notes     | 2016      | 2015      | 2014        |
|--|-----------|-----------|-----------|-------------|
| <b>CASH FLOW OF INVESTING ACTIVITIES</b>                 |           |           |           |             |
| Additions to fixed assets                                | <b>14</b> | (571,445) | (783,522) | (1,029,841) |
| Additions to intangible assets                           | <b>15</b> | (5,933)   | (10,085)  | (11,938)    |
| Proceeds from disposal of fixed assets                   |           | 29,537    | 53        | 450         |
| Net cash used in investing activities                    |           | (547,841) | (793,554) | (1,041,329) |
| <b>CASH FLOW OF FINANCING ACTIVITIES</b>                 |           |           |           |             |
| Loans and financing                                      |           | 29,938    | 254,004   | 387,320     |
| Payment of loans and financing                           |           | (609,264) | (327,049) | (319,352)   |
| New issuance of debentures                               |           | -         | 555,003   | -           |
| Payment of debentures                                    |           | (99,990)  | (193,746) | -           |
| Dividends paid   |           | (70,247)  | (179,873) | (222,934)   |
| Net cash provided by (used in) financing activities      |           | (749,563) | 108,339   | (154,966)   |
| <b>INCREASE (REDUCTION) IN CASH AND CASH EQUIVALENTS</b> |           |           |           |             |
|  |           | (331,526) | 406,540   | (207,960)   |
| <b>Cash and cash equivalents</b>                         |           |           |           |             |
| Initial balance  |           | 627,625   | 221,085   | 429,045     |
| Closing balance  |           | 296,099   | 627,625   | 221,085     |

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

FS-8

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**MRS Logística S.A.**

**Notes to the financial statements  
at December 31, 2016**

**In thousands of reais, unless otherwise stated**

**1. General**

MRS Logística S.A. ("MRS" or "Company") is a publicly-held limited liability company with unlimited duration, incorporated on August 30, 1996, with the purpose of exploring, by onerous concession, the public service of goods transportation in the railroad system of the Southeast Network, located in the Rio de Janeiro, São Paulo and Minas Gerais axis, of the former Rede Ferroviária Federal S.A. - RFFSA, which was privatized on September 20, 1996.

The Company may also explore modal transportation services related to the railway transportation and participate in projects aiming at the expansion of rail services.

For the provision of the rail transportation services, in accordance with the concession obtained for a 30-year period, from December 1, 1996, which may be extended, in case of demonstrated interest of both parties, to the maximum limit of 30 years at the sole discretion of the Granter, the Company leased from RFFSA, for the same period of the concession, the assets required to operate and maintain railway cargo transportation activities.

The concession agreement sets forth goals to be met by the Company, related to increased cargo transportation and the decreased number of accidents on the railway lines. If these goals are not met, the Federal Government may determine, by federal decree, the intervention in the Company for a maximum period of 180 days, after which the concession may be canceled or returned to the Company. The concession may be terminated in the following legal situations: (i) end of the contract term; (ii) expropriation; (iii) expiration; (iv) termination; (v) annulment of the tender; (vi) bankruptcy or dissolution of the Company. In any case of termination of the concession, the Company shall be indemnified by the Federal Government for the undepreciated balance of investments carried out and declared reversible by the Granting Authority. On December 31, 2016, MRS was compliant with the aforementioned targets.



Company Management states that a significant portion of the negative net current assets presented on December 31, 2016, refers to obligations of debt concentrated in the 2<sup>nd</sup> half of 2017. It is also believes that this scenario shall be managed throughout the year, due to the strong cash generation from operational activities, as well as new long-term resource, via financial institutions or the local capital market, already foreseen by the Company, as further detailed in Note 19.

The issue of this financial statements for the year ended December 31, 2016 were approved by the Company's Board of Directors on April 20, 2017.

## **2. Summary of the main accounting policies**

The main accounting policies applied when preparing these financial statements are detailed below and have been applied consistently in the years presented, unless otherwise stated.

### **2.1 Bases of the financial statements**

#### **(a) Declaration of conformity**

The financial statements were prepared and are presented in accordance with the International Financial Reporting Standards (IFRS), issued by the International Accounting Standards Board (IASB) and show all (and only) relevant information pertinent to the financial statements, such information being consistent with that used by management in its activities.

FS-9

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

**(b) Basis of preparation**

The financial statements were prepared considering the historic cost as base value, with some financial assets and liabilities (including derivative instruments) measured at fair value.

The preparation of financial statements requires the use of certain key accounting estimates and also the judgment by the Company's Management when applying the accounting policies. The areas that require a higher level of judgment and are more complex, as well as areas in which assumptions and estimates are significant to the financial statements, are reported in Note 3.

**2.2 Restatement of the comparative figures**

**(a) Correction of errors**

In 2016, changes were made in the statement of cash flows, aiming at better presentation in compliance with the applicable accounting standard "IAS 7 - Statement of cash flows", as described below:

- Change of the balance criterion for the net profit at year-end for Profit before taxes, that is, the current and deferred corporate income tax (IRPJ) and social contribution (CSLL) effects;

- Adjustment of suppliers not considering as investing activity the unpaid amounts regarding the purchase of fixed asset and;
- Presentation of resources from the disposal of fixed assets in investing activities.

The statement of cash flows of December 31, 2015, presented for purposes of comparison, has been adjusted and restated.

**(b) Restatement effects**

|  | <b>December 31, 2015</b> |            |                |
|--|--------------------------|------------|----------------|
|  | Original                 | Adjustment | Restated       |
| Net cash of operating activities             | 1,159,949                | (68,194)   | 1,091,755      |
| Net cash of investing activities             | (861,748)                | 68,194     | (793,554)      |
| Net cash of financing activities             | 108,339                  | -          | 108,339        |
| <b>Increase of cash and cash equivalents</b> | <b>406,540</b>           | <b>-</b>   | <b>406,540</b> |

|  | <b>December 31, 2014</b> |            |                  |
|--|--------------------------|------------|------------------|
|  | Original                 | Adjustment | Restated         |
| Net cash of operating activities             | 1,007,419                | (19,084)   | 988,335          |
| Net cash of investing activities             | (1,060,413)              | 19,084     | (1,041,329)      |
| Net cash of financing activities             | (154,966)                | -          | (154,966)        |
| <b>Increase of cash and cash equivalents</b> | <b>(207,960)</b>         | <b>-</b>   | <b>(207,960)</b> |

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FS-10

**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

### **2.3 Presentation of segment information**

Since only cargo transportation services are offered by the Company, for accounting and management purposes, the Company is organized into a single business unit. The Company's operations are controlled, managed, and monitored by management as a whole.

### **2.4 Translation of foreign currency**

#### **(a) *Functional currency and presentation currency***

The items included in the financial statements are measured using the main currency of the economic environment in which the Company operates ("the functional currency"). Accordingly, the financial statements are presented in reais (R\$).

#### **(b) *Foreign currency operations and balances***

Operations in foreign currency are translated to the functional currency by using the current exchange rates on the transaction dates or measurement dates, when items are remeasured.

The gains or losses in translation from these operations and translation at the exchange rates at the year-end, referring to monetary assets and liabilities in foreign currency, are recognized in the income statement.

The gains or losses in translation regarding loans, cash and cash equivalents, as well as other exchange gains or losses, are presented in the income statement as financial income or expense.

## **2.5 Cash and cash equivalents**

The Company considers as cash and cash equivalents the amounts in cash, bank deposits and financial investments, redeemable within 90 days, and convertible into a known cash amount, subject to an insignificant risk of change in value.

## **2.6 Financial assets**

### **2.6.1 Classification and initial measurement**

The Company's classifies its financial assets - at initial recognition - under the following categories: measured at fair value through results and loans and receivables. The classification depends on the purpose for which the financial assets were purchased.

The Company's financial instruments include accounts receivable, amounts due from related companies, cash and cash equivalents, restricted cash, in addition to the transactions with derivative financial instruments.

FS-11

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

The financial instruments are initially recognized at their fair values less any transaction costs assigned directly to acquisition or issuance, except for instruments that are recognized at fair value through results.

### **2.6.2 Subsequent measurement**

The measurement of financial assets depends on the classification, which can be as follows:

**(i) Financial assets measured at fair value through results**

An instrument is classified at the fair value through results if acquired for purpose of trading i.e. defined as such on initial recognition. After the initial recognition, the related transaction costs are recognized in the results when incurred.

This category includes the derivative financial instruments contracted by the Company that do not meet the accounting criteria for hedge accounting defined by IAS 39.

**(ii) Loans and receivables**

These are non-derivative financial assets with fixed or determinable receipts, and established maturity dates, which the entity intends to and is capable of complying with. Initially, they are recognized less any transaction costs directly assigned. After initial recognition, the financial assets, held until maturity, are measured at amortized cost. The Company's loans and receivables comprise trade accounts receivable and related companies, other receivables, cash and cash equivalents, and restricted cash.

Usually, these receivables are recognized at the invoiced amount adjusted to their present value when considered significant, and less the estimated losses due to impairment. The estimated losses from doubtful debts are provided at an amount considered sufficient to cover probable losses or on uncollectible debts.

**2.6.3 Offsetting of financial instruments**

Financial assets and liabilities are offset and the net amount is presented in the balance sheet when there is a legal right to offset the recognized amounts and the intention to settle them on a net basis, or simultaneously dispose of the assets and settle the liabilities.

**2.6.4 Financial assets impairment**

**Assets measured at amortized cost**

A financial asset or group of financial assets is impaired and impairment losses are recognized only if any evidence that they incurred a loss in their recoverable amount is found.

Annually, the Company evaluates if there is evidence of loss in the recoverable amount of a financial asset using the following criteria:

- financial problems of the issuer or borrower;
- breach of contract, such as failure to comply with the agreement or delay in payments;
- likelihood of the debtor entering into bankruptcy, or other similar financial reorganization.

The impairment loss is the difference between the asset's carrying amount and the current amount of the estimated future cash flows, discounted at the original effective rate of interest of the financial asset. The amount of loss is recognized in the results for the year.

FS-12

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

If in a later period, the impairment loss decreases and such decrease is related to an event occurred after the recognition of the loss of recoverable amount, the reversal of the previously recorded loss is recognized in the result.

## **2.7 Derivative financial instruments**

The Company has derivative financial instruments to protect itself from risks related to foreign currency and interest rate.

The derivative financial instruments are initially recognized at the fair value on the date the derivatives contract is signed, and remeasured thereafter at fair value. The derivatives are presented as financial assets when the instrument's fair value is positive, and as financial liabilities when the fair value is negative.

As from April 1, 2016, the Company chose to apply the hedge accounting methodology for a swap that protects a debt in U.S. dollar with fixed rate interest, according to the Risk Management and Hedge strategy.

The Company documented such hedge as hedge of Fair Value after the tests showed that it is expected that the Hedge is highly effective when offsetting the changes in the fair value of the hedged item.

From the swap is designation as on the Hedge of Fair Value, the variation of the hedge fair value is still recorded in the financial statements, but at the same time, the variation of the assigned risk fair value subject of the designated hedge is verified and recorded in liabilities as a balancing item in the results.

## **2.8 Trade accounts receivable and related companies**

The trade accounts receivable correspond to the receivable for the rendering of cargo shipping services and related companies in the normal course of the Company's activities. If the receipt is expected in one year or less, the accounts receivable are classified in current assets. Otherwise, they are presented in non-current assets.

Initially, they are recognized at the fair value and then measured at amortized cost using the method of the effective rate of interest less the estimated impairment loss.

## **2.9 Inventories**

The inventories are shown at weighted average cost that does not exceed the net realizable value. The provisions for low turnover or obsolete inventories are made as needed by management.

## **2.10 Intangible assets**

Intangible assets acquired separately are measured at the cost at the time of their initial recognition. After the initial recognition, they are presented at the cost, less the accrued amortization and any accrued losses in recoverable value. The expenses with the development of assets generated internally are also capitalized and are included in the intangible asset cost.

Intangible assets with defined lives are amortized throughout their economic life and evaluated regarding any loss by reducing them to the recoverable value, whenever there is a loss of the asset economic value. The amortization method and term for an intangible asset with a defined life are reviewed at least at the end of each year. Changes in the estimated life or expected consumption of future economic benefits of these assets are recognized by changing the amortization period or method, as applicable, and treated these as changes in accounting estimates. The amortization of intangible assets with defined life is expensed in the income statement consistent with their use.

FS-13

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

The intangible assets amortization rate, excluding concession fee, was estimated at 20% per year. The part that refers to the advance payment of the concession is appropriated to the cost of the services rendered over the term of the concession agreement (360 months).

Gains or losses resulting from the sale or write-off of an intangible asset are measured as the difference between the net value obtained from the sale and the asset carrying value, and are recognized in the income statement when writing-off the asset.

**2.11 Fixed assets**

The fixed assets are presented at cost less depreciation/accrued amortization and/or possible accrued losses by reducing them to the recoverable value, as the case may be. The referred cost includes the replacement cost of a part of the fixed assets and loan costs of long-term construction projects, when the recognition criteria are met. When a material replacement is performed, its cost is recognized in the fixed asset carrying value, if the recognition criteria are met. All the other repairs and maintenance costs are recognized in the income statement, when incurred.

A fixed asset item is written-off when sold or when no future economic benefit is expected from its use or sale. Any gain or loss resulting from asset write-off is included in the financial statements for the year the asset is written-off.

At the end of the concession term, the concessionaire assets and those resulting from investments in leased assets, necessary for railway transportation service provision and linked to the concession can - upon declaration of reversibility and due compensation of the investments performed by the Granting Authority - now be returned to the

Federal Government equity, as provided in Clause 16 of the Concession agreement.

The fixed asset items are depreciated from the date they are available for use, or if the assets are built internally, from the day the construction ends and the asset is available for use.

Depreciation is calculated using the straight-line method based on the asset's estimated service life.

Land is not depreciated. The annual rates for depreciation and service life of the main asset groups are:

| Asset groups                                | %     | Average life<br>(in years) |
|---|-------|----------------------------|
| <b>Immovable assets</b>                     |       |                            |
| Improvements in permanent way               | 9.09  | 11                         |
| Improvements on leased property             | 4.00  | 25                         |
| <b>Locomotives</b>                          |       |                            |
| Diesel locomotives                          | 3.33  | 30                         |
| Electric locomotives                        | 4.17  | 24                         |
| Used locomotives                            | 8.33  | 12                         |
| Useful improvements on locomotives          | 12.50 | 8                          |
| Average service life of the main components | 12.50 | 8                          |
| <b>Wagons</b>                               |       |                            |
| Wagons                                      | 3.33  | 30                         |
| Useful improvements on cars                 | 10.00 | 10                         |
| Average service life of the main components | 16.67 | 6                          |
| <b>Others</b>                               |       |                            |
| Grinder, control car, equipment and tools   | 10.00 | 10                         |
| Data processing equipment                   | 20.00 | 5                          |
| Furniture and utensils                      | 10.00 | 10                         |
| FS-14                                       |       |                            |

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

The residual value, asset service life, and depreciation methods are reviewed at the end of each year and adjusted prospectively, when applicable.

**2.12 Non-financial assets impairment**

Management annually reviews the carrying value of non-financial assets with the purpose to evaluate events or changes due to economic, operating or technological circumstances that might indicate impairment or loss of recoverable value.

For the evaluation of non-financial assets, Management uses the future profitability methodology for the considered cash generating unit, and thus determines the value in use of the Company's assets. If the fixed asset carrying value is higher than the value in use, a provision is made for devaluation, reducing the net carrying value to the recoverable value.

**2.13 Trade accounts payable**

These are obligations to pay for goods or services that were acquired in the ordinary course of business. They are classified as current liabilities if the payment is due in the period of up to 1 year. Otherwise, they are presented as non-current liabilities.

Initially, they are recognized at fair value and thereafter measured at amortized cost using the method of the effective rate of interest.

## **2.14 Financial liabilities**

### **2.14.1 Classification and initial measurement**

Financial liabilities are classified as at fair value through results or other financial liabilities, as applicable. The Company determines the classification of its financial liabilities at the time of their initial recognition.

Initially, they are recognized at fair value and, in the case of loans and other debts, they are net of the cost of the related transaction.

The Company's financial liabilities include trade accounts payable, amounts due to related companies, loans and other debts, debentures, and losses in transactions with derivative financial instruments.

### **2.14.2 Subsequent measurement**

The measurement of financial liabilities depends on their classification, which can be as follows:

FS-15

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

**(i) Financial liabilities at fair value through results**

These are classified as held for trading when acquired with the purpose of short-term settlement. The derivative financial instruments contracted by the Company that do not meet the accounting criteria of cash flow hedge defined by IAS 39 are included in this category.

Losses and gains of liabilities for held trading are recognized in the income statement.

**(ii) Other financial liabilities**

These are initially recognized at the net fair value of the costs incurred in the transaction and are thereafter stated at amortized cost. Any difference between the fair values (net of transaction costs) and the total value to be paid is recognized in the income statement over the term the loans, using the method of the effective rate of interest. The Company's "Other financial liabilities" comprise suppliers, accounts payable to related companies, loans and other debts and debentures.

Loans are classified as current liabilities unless the Company has an unconditional right to defer payment for, at least, 12 months after the balance sheet date.

General and specific loan costs that are directly assigned to the acquisition, construction or production of an eligible asset are capitalized as part of the asset cost when it is likely that they will result in future economic benefits for the entity and that such costs can be measured with confidence. Other loan costs are recognized as expenses in the year they are incurred.

## **2.15 Provisions**

The provisions for litigation (labor, civil, tax and environmental) are recognized when: (i) the Company has a constructive obligation as a result of past events; (ii) it is likely that an outflow is necessary to settle the obligation; and (iii) it is possible to safely estimate the value. Provisions do not include future operating losses.

When a number of similar obligations exist, the likelihood of loss is determined by taking into account the class of obligations as a whole. A provision is recognized even if the likelihood of loss related to any individual item included in the same obligation class is low.

Provisions are measured at the expenditure needed to settle the obligation using a rate before the tax effects, which reflects the current market evaluations of the time value of money and the risks specific to the obligation. The increase of the obligation as a result of the passing of time is recognized as a financial expense.

## **2.16 Current and deferred income tax and social contribution**

The expenses of income tax and social contribution of the year comprise the current and deferred taxes. Income taxes are recognized in the income statement, except when they are related to items recognized in equity or comprehensive result. In this case, the tax is also recognized in the equity or comprehensive result.

The current and deferred income tax and social contribution is calculated based on the enacted tax laws, or those substantially enacted, at the balance sheet date. From time to time, Management assesses the positions taken by the Company in tax returns regarding circumstances in which the applicable tax regulation is subject to interpretations; and makes provisions when appropriate, based on the estimated payment due to the tax authorities.

FS-16

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

Income tax and social contribution are shown in liabilities when there are amounts payable or in assets when the amounts paid in advance exceed the total due at the balance sheet date.

Deferred income tax and social contribution are recognized using the liability method on the temporary differences existing between the tax bases of assets and liabilities and their accounting values in the financial statements.

Deferred tax assets are recognized only to the extent that future taxable income will be available for the use of the temporary differences.

Deferred tax assets and liabilities are presented at the net value in the financial statements when there is the legal right and intention to offset them in the calculation of the current taxes, usually related to the same legal entity and tax authority.

**2.17 Employee benefits**

**Pension benefits and other post-employment benefits**

The Company sponsors a defined contribution welfare plan, which requires that the contributions be made to funds separated from the Company's own resources. The Company has no further payment obligation after the contribution is made. Contributions are recognized as benefit expenses for employees, when they fall due. Contributions in advance are recognized as an asset when a reimbursement in cash or reduction in future payments is available.

The Company also grants post-retirement medical assistance to its employees. The right to such benefits is usually subject to the employee staying in employment until retirement and completion of a minimum employment time. The expected costs of these benefits are accrued during the time of service, using the same accounting methodology used in defined benefit pension plans. Actuarial gains and losses from adjustments based on experience and changes in actuarial assumptions are debited or credited to equity, in other comprehensive results. Such obligations are assessed annually by qualified independent actuaries.

Past service costs of the health insurance plan are recognized on the straight-line basis as expenses throughout the average term in which the right to the benefits is acquired. If the right to the benefits has already been acquired, past service costs are immediately recognized after their introduction or after changes in the health plan.

### **Short-term benefit - profit sharing**

The Company recognizes a liability and an expense for profit sharing based on its own methodology, approved by the Board of Directors. The Company recognizes a provision when it is obliged by a contract or when there is a previous practice that has generated an informal obligation.

## **2.18 Finance leases**

The Company classifies its contracts as operational or finance lease based on the contracted operation, which considers which party is responsible for inherent risks and benefits of the ownership of the leased assets, throughout their life.

Finance leases are registered as a financed purchase, recognized initially an asset and a financing liability (leasing).

FS-17

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

Operating lease payments are recognized on the straight-line basis as cost or expense in the income statement over the lease term.

## **2.19 Leasing and concessions**

The Company renders utility services under leasing and concession contracts. Although the Company acts under a concession, its activity does not fall under the Technical Interpretation requirements IFRIC 12 - Service Concession Arrangements, since the Granting Authority cannot control to whom the services should be rendered or the price to be charged. The commercial relationship between the Company and its clients prevails.

## **2.20 Share capital**

The subscribed and paid-up share capital is divided into book-entry common and preferred shares, with no par value.

## **2.21 Revenue recognition**

Revenue is recognized to the extent it is likely that economic benefits will be obtained by the Company and when it can be reliably measured. Revenue is measured based on the fair value of the consideration, net of discounts, deductions and taxes or charges on sales. The following specific criteria should also be met before revenue recognition:

### **Provision of transportation services**

The revenue for provision of cargo transportation services, the Company's main revenue, is recognized when cargo is transported according to the service agreement. Service revenue fair value is reliably calculated based on fees previously agreed between the parties.

### **Financial income**

The financial income comprises the interest income and monetary and exchange rate variation on financial investments, advances to suppliers, trade accounts receivable and exchange rate variations on loans and other debts. Interest revenue is recognized on the straight-line method based on time and effective rate of interest on the principal amount.

### **Other operational revenues**

Other revenues are recognized when it is likely that future economic benefits will be generated for the Company, and the revenue value can be reliably measured.

## **2.22 Distribution of dividends**

The distribution of dividends to the Company's stockholders is recognized as a liability in the financial statements at the end of the year, based on the Company's bylaws. Any amount above the minimum required by the Corporation law (*Lei das S.A.s*) should only be provided on the date it is approved by the stockholders at a General Meeting.

## **3. Estimates and critical accounting judgments**

The accounting estimates and judgments are continually assessed and are based on the historical experience among other factors, including the expectation of future events, considered reasonable under the circumstances.

FS-18

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

**3.1 Critical accounting estimates and assumptions**

Based on assumptions, the Company makes estimates regarding the future. By definition, the resulting accounting estimates will rarely be equal to the respective actual results. The estimates and assumptions that present a significant risk of causing a material adjustment to the assets and liabilities accounting values for the next financial year are found below.

**(a) Income tax, social contribution and other tax credits**

There are uncertainties regarding the interpretation of tax regulations and value and timing of future taxable results. Differences between the actual results and assumptions adopted, or future changes in these assumptions, may require future adjustments in the results and tax expenses already registered. The Company has provisions, based on appropriate estimates, for possible consequences of inspections by the tax authorities of the jurisdiction in which it operates. The value of these provisions is based on several factors, such as experience of previous tax audits and different interpretation of tax regulations by the taxable entity and by the applicable tax authority. These differences of interpretation may arise in a wide variety of issues, depending on the effective conditions in the Company's respective domicile.

A significant management judgment is required in order to determine the value of the deferred tax asset that can be recognized based on the probable timing and level of future taxable profit.

**(b) Post-employment benefits**

The costs of the medical assistant post-employment benefit plan are determined using actuarial evaluation methods. The actuarial evaluation encompasses the use of assumptions about discount rates, expected asset return rates, future wage increases, mortality rates, and future increases in benefits. The obligation of this benefit is sensitive to changes in these assumptions. All assumptions are reviewed at each base date.

The supplementary welfare plan is a defined contribution plan, which does not require actuarial assumptions to measure the obligation or expense.

**(c) *Fair value of derivatives and other financial instruments***

The fair value of financial liabilities and assets is obtained by means of active markets. However, when this is not feasible, the fair value is determined by using assessment techniques that require levels of judgment. The judgment includes considerations on the data used such as liquidity risk, credit risk and volatility. Changes in the assumptions on these factors could affect the presented fair value of financial instruments.

**(d) **Provisions for tax, civil, labor and environmental risks****

Provisions are made for all contingencies regarding lawsuits whose possibility of loss is considered probable by legal counsel.

The Company periodically reviews the accrued amounts and if it identifies changes, such as a change of prognosis, applicable limitation period, conclusions of tax inspections or additional exposures identified based on new facts or court decisions, the provisions are adjusted.

FS-19

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

**(e) Calculation of impairment, depreciation, amortization and evaluation of fixed and intangible assets**

The calculation of depreciation and amortization of fixed and intangible assets includes the economic life estimates of the main Company assets which is reviewed from time to time.

The Company performs an assessment of impairment of fixed and intangible assets annually. If the asset's carrying value is greater than the value in use, it is necessary to make the provision for devaluation, reducing the net carrying value to the recoverable value.

**4. New standards not yet effective**

The following standards were issued by the IASB, but are not effective for 2016.

. **IFRS 15 - "Revenue from Contracts with Customers"**, the purpose of this pronouncement is to set the principles the entity should apply to present useful information to the users of financial statements on the nature, value, timing, and uncertainty of revenues and cash flows from the contract with customers, based on the basic principle that the entity shall recognize revenues on the transfer of goods or services promised to customers at the amount reflecting the consideration which the entity expects to be entitled in exchange for such goods or services. It is effective on January 1, 2018, and although a detailed evaluation of its effects is not completed, the Company does not expect significant impacts on adoption.

. **IFRS 9 - "Financial instruments"**, addresses the classification, measurement and recognition of financial assets and liabilities. The full version of IFRS 9 was published in July 2014 and becomes effective on January 1, 2018. It



replaces IAS 39 guidelines regarding the classification and measurement of financial instruments. The main changes the IFRS 9 brings are: (i) new classification criteria for financial assets; (ii) new impairment model for financial assets, hybrid of expected and incurred losses, replacing the current model of incurred losses; and (iii) flexibility of the requirements for adopting hedge accounting.

Management understands that the new IFRS 9 guidelines will not bring a significant impact on classification and measurement of the Company's financial assets, as well as in accounting hedge relations. The Company has not completed the detailed assessment of how the impairment provisions will be affected by the new model. Although no significant impact is expected, its application probably will anticipate possible recognition of losses.

. **IFRS 16 - "Leases"**, this standard replaces the previous leasing standard, IAS 17 - Leasing Operations, and related interpretations, and sets the principles for recognition, measurement, presentation and disclosure of leasing for both parties of a contract i.e. clients (lessees) and suppliers (lessors). Lessees are required to recognize a lease liability reflecting future lease payments and a "right of use of an asset" for almost all lease contracts, except some short-term leases and low-value asset agreements. For lessors, the accounting treatment practically remains the same, with the classification of leases as operating leases or finance leases and a different accounting for both lease contract types. It is effective on January 1, 2019, and Management is assessing the impacts of its adoption.

Although the impacts are still not measured, the Company understands that this new standard will significantly effect the financial standing with possible recognition of the lease liability and the right of use of the leased assets of the Granting Authority (see Note 21).

**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****5. Cash and cash equivalents**

|                                  | <b>2016</b>    | <b>2015</b>    |
|----------------------------------|----------------|----------------|
| Current                          |                |                |
| Cash and banks                   | <b>23,530</b>  | <b>2,127</b>   |
| Financial investments in Brazil  |                |                |
| CDB                              | 84,514         | 59,872         |
| Repurchase transactions          | 188,055        | 565,626        |
|                                  | <b>272,569</b> | <b>625,498</b> |
| <b>Cash and cash equivalents</b> | <b>2.5</b>     | <b>296,099</b> |
|                                  |                | <b>627,625</b> |

Financial investments are represented by securities issued by banks in Brazil and have immediate liquidity. They can be redeemed before maturity, without charges or significant adjustment in the yield previously agreed with the financial institution.

These investments are in CDB and repurchase agreements backed by debentures, with remuneration based on the variation of Interbank Deposit Certificates - CDI, currently in the range between 100.00% and 102.80%.

The reduction of R\$ 331,526 is basically due to the lower amount of loans obtained in the year, as well as to the higher amount of repayments, including debt settlement in US dollar.

The calculation of the fair value of financial investments is described in Note 19.

**6. Restricted cash**

Restricted cash refers to the financial investment linked to the short-term portion of the Brazilian Development Bank (BNDES) debt, related to the Projects Financing (FINEM) and to the Document of Credit Limit Usage (DULC) being part of the operation guarantee.

This investment, in the amount of R\$49,065 (R\$43,850 in 2015), is backed by debentures (repurchase operation with banks in Brazil) with remuneration based on the variation of Interbank Deposit Certificates - CDI.

**7. Trade accounts receivable**

|   |            | <b>2016</b>   | <b>2015</b>   |
|---|------------|---------------|---------------|
| Clients in Brazil                             | <b>(a)</b> | 29,825        | 75,039        |
| Estimated provision for loss in doubtful debt | <b>(b)</b> | (1,106)       | (51,793)      |
|   |            | <b>28,719</b> | <b>23,246</b> |

(a) Basically refer to the receivables related to railway freight services rendered, including mutual traffic and right of way charges, for clients that are not related parties.

FS-21

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

(b) As disclosed in the 2014 financial statements, the Company accrued the total loss of the value receivable from MMX Sudeste Mineração S.A., referring to the invoicing of 2014 loads and 2013 take or pay. On October 2, 2015 the Company published a material fact notice informing the approval, by an arbitration court, of an agreement regarding the Company's dispute with MMX Sudeste Mineração S.A. - in judicial recovery ("MMX Sudeste"), and with MMX Mineração e Metálicos S.A. ("MMX Metálicos"). The said agreement was qualified in the MMX Sudeste judicial recovery process. On October 28, 2016, Company decided to waive the right to receive 49% of UPI Operação Minerária and royalties as provided in the judicial recovery plan, maintaining only the right to UPI's Net Sales amount. In addition, the Company informs that the Net Sales value was fully paid on November 9, 2016, in the amount of R\$21,628, in light of the decisions taken, and was recognized in the 2016 income statement with the reversal of the loss accrual estimated in doubtful debts established in 2014, for the part paid (receipt) the amount of R\$21,628 and the remaining balance treated as a definitive loss.

**8. Related parties**

The assets and liabilities balances on December 31, 2016, and December 31, 2015, informed in this note, are related to operations with related parties arising from the Company's transactions with its shareholders, related companies and key management personnel.

Transactions with related parties are associated especially to the provision of public service of rail cargo transportation. They are conducted on terms and conditions negotiated with each of the contracting customers, observing the tariff ceilings established by the Granting Authority, which apply to all the concessionaire customers, whether they are related parties or not. In accordance with the Company's Corporate Governance, values negotiated with the related parties are approved by shareholders and follow a tariff model that aims at compensating for the costs of the rail transportation services provided, plus margins that are compatible with those established in the business plan. There are no transactions with negative margins, as established in the concession agreement. Moreover,

contracts with related parties are long-term and have penalty clauses for non-fulfillment of planned annual volumes, as with the other captive customers.

In addition to railway cargo shipping service agreements, the Company has other agreements with its related parties regarding maintenance services and improvements in terminals, scrap sales, and maintenance of rolling stock.

The Company has the following balances regarding transactions with related parties:

FS-22

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****- Assets**

|  | <b>Receivables</b> |                |
|--|--------------------|----------------|
|  | <b>2016</b>        | <b>2015</b>    |
| Vale S.A.                                | 66,000             | 90,882         |
| Companhia Siderúrgica Nacional           | 25,842             | 27,185         |
| Mineração Usiminas S.A. (a)              | 186,178            | 31,908         |
| Nacional Minérios S.A. (b)               | -                  | 3,831          |
| CSN Mineração S.A. (b)                   | 9,935              | 16,701         |
| Usinas Siderúrgicas de Minas Gerais S.A. | 3,859              | 20,927         |
| Gerdau S.A.                              | 105                | 2,875          |
| Gerdau Açominas S.A.                     | 2,329              | 3,462          |
| Gerdau Aços Longos S.A.                  | 258                | 992            |
| Ferrovias Centro Atlântica (c)           | 4,241              | 946            |
|  | <b>298,747</b>     | <b>199,709</b> |
| Current                                  | 144,115            | 199,709        |
| Non-current                              | 154,632            | -              |

(a) On January 22, 2016, the addendum to the agreement among MRS and Mineração Usiminas S.A. "MUSA" and Usiminas was signed where the parties suspended indefinitely the execution of iron ore shipping agreements. MUSA assumed the obligation to indemnify MRS regarding the investments made for the expansion of capacity to meet the contracted demand in order to achieve the economic and financial balance of the agreements then signed. The amount will be paid in 10 yearly installments of R\$ 31,546, a total of R\$ 315,460, with no monetary adjustments. The current value of the payment stream is R\$ 186,178 on December 31, 2016, R\$ 31,546 in current and R\$ 154,632 in non-current. In January 2017, the Company received the amount of R\$ 31,546.

(b) See Note 24 (a).

(c) From the amount of R\$4.241, R\$2.843 refers to receivables as reimbursement due to the shared investment in railway terminal in the Baixada Santista, under the Commitment Agreement 001/2016 signed by and between MRS, ALL - América Latina Logística Malha Paulista S.A. and Ferrovias Centro Atlântica S.A.

As mentioned in Note 18, the Company has a receivable agreement with related companies given as guarantee for loans.

The average time for receiving the receivables from related parties is under 20 days.

FS-23

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****- Liabilities**

|  | <b>Liabilities with related parties</b> |               | <b>Dividend payable</b> |               |
|--|---|---------------|-------------------------|---------------|
|  | <b>2016</b>                             | <b>2015</b>   | <b>2016</b>             | <b>2015</b>   |
| Vale S.A.                                | -                                       | 14            | 10,364                  | 7,342         |
| Minerações Brasileiras Reunidas S.A.     | -                                       | -             | 33,338                  | 23,617        |
| Companhia Siderúrgica Nacional           | 1,245                                   | 18,024        | 18,722                  | 13,263        |
| CSN Mineração S.A.                       | 93                                      | -             | 18,733                  | 5,873         |
| Nacional Minérios S.A.                   | -                                       | -             | -                       | 7,398         |
| Usinas Siderúrgicas de Minas Gerais S.A. | 17                                      | 19            | -                       | -             |
| Gerdau S.A.                              | 828                                     | 96            | 1,245                   | 882           |
| Gerdau Açominas S.A.                     | 5                                       | -             | -                       | -             |
| Usiminas Participações e Logística S.A.  | -                                       | -             | 10,580                  | 7,495         |
| Gerdau Aços Longos S.A.                  | 77                                      | 599           | -                       | -             |
| Ferrovias Centro Atlântica (d)           | 17,069                                  | 214           | -                       | -             |
| Others                                   | -                                       | -             | 6,279                   | 4,528         |
|  | <b>19,334</b>                           | <b>18,966</b> | <b>99,261</b>           | <b>70,398</b> |
| Current                                  | 3,031                                   | 18,966        | 99,261                  | 70,398        |
| Non-current                              | 16,303                                  | -             | -                       | -             |

(d) The liability of R\$17,069 (R\$766 in current liabilities and R\$16,303 in non-current liabilities) basically refers to amounts to be reimbursed to Ferrovias Centro Atlântica for the execution of Lines 7 and 9 of Pátio de Areais, under the Term of Commitment 001/2015, signed by and between MRS and Ferrovias Centro Atlântica.

**- Result**

|  | <b>Services revenue (3)</b> |             |             | <b>Other operating revenues</b> |             |             | <b>Financial income</b> |             |             |
|--|-----------------------------|-------------|-------------|---------------------------------|-------------|-------------|-------------------------|-------------|-------------|
|  | <b>2016</b>                 | <b>2015</b> | <b>2014</b> | <b>2016</b>                     | <b>2015</b> | <b>2014</b> | <b>2016</b>             | <b>2015</b> | <b>2014</b> |

8. Related parties

568



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|   |                  |                  |                  |                |               |               |               |            |            |
|---|------------------|------------------|------------------|----------------|---------------|---------------|---------------|------------|------------|
| Vale S.A. (f)<br>Companhia<br>Siderúrgica Nacional  | 1,682,315        | 1,607,675        | 1,479,022        | 30,992         | 271           | -             | -             | -          | -          |
| (g)<br>Mineração Usiminas                           | 243,070          | 673,489          | 660,754          | 16,325         | 4,680         | -             | 1,040         | 344        | -          |
| S.A. (h)<br>CSN Mineração S.A.<br>Nacional Minérios | 16,971           | 104,031          | 178,384          | 164,626        | 3             | 66,300        | 23,221        | -          | -          |
| S.A.  | 639,063          | 39,174           | -                | 3,673          | -             | -             | 460           | -          | -          |
| Usinas Siderúrgicas<br>de Minas Gerais S.A.         | -                | 98,814           | 171,371          | -              | 1,425         | -             | -             | 247        | -          |
| Gerdau S.A.   | 114,231          | 117,858          | 98,920           | -              | 195           | 6,272         | -             | -          | -          |
| Gerdau Açominas<br>S.A.                             | 1,230            | 4,065            | 6,766            | 1,048          | 597           | 1,005         | 2             | -          | 86         |
| Gerdau Aços Longos<br>S.A.                          | 106,635          | 81,203           | 85,285           | 1,436          | 198           | 63            | 21            | -          | 91         |
| Ferrovias Centro<br>Atlântica                       | 8,247            | 18,194           | 19,384           | 11,665         | 14,589        | 15,910        | 15            | -          | 135        |
| Companhia<br>Metalúrgica Prada                      | 36,763           | 31,725           | 21,792           | 407            | -             | -             | -             | -          | -          |
| CSN Cimentos S.A.<br>Confab Industrial              | 772              | 1,543            | 1,160            | 19             | -             | -             | -             | -          | -          |
| S.A.  | 15               | 247              | 259              | -              | -             | -             | -             | -          | -          |
| Sepetiba Tecon S.A.                                 | -                | 10,639           | 9,625            | -              | 95            | 213           | -             | -          | 10         |
| Usiminas Mecânica                                   | 110              | 679              | 213              | -              | -             | -             | -             | -          | 2          |
| Votorantim Metais                                   | -                | -                | -                | 11             | -             | -             | -             | -          | -          |
| Zinco S.A.  | -                | -                | -                | 2              | -             | -             | -             | -          | -          |
|   | -                | 1,468            | 4,996            | -              | 7             | 46            | -             | -          | -          |
|   | <b>2,849,422</b> | <b>2,790,804</b> | <b>2,737,931</b> | <b>230,204</b> | <b>22,060</b> | <b>89,809</b> | <b>24,759</b> | <b>591</b> | <b>324</b> |

FS-24

**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

(e) Presented gross of taxes.

(f) In October 2016, the Company registered in "Other operating income" the performance of a part of the contract signed with Vale S.A. regarding the sale of 23 locomotives. Up to December 31, 2016, 6 locomotives were delivered, and the value of such sale was R\$29,515. The remaining amount of R\$ 1,477 refers to the sale of maintenance materials for these assets.

(g) The amount of R\$ 17,365, included in "Other income" and "Financial income", basically refers to compensation for investments made to meet contracted demand in order to achieve contract economic and financial balance.

(h) The amount of R\$ 187,847, included as "Other income" (R\$ 164,626) and "Financial income" (R\$ 23,221), refers to the recognition of the suspension of the contract mentioned in the letter (a) of this same note.

|                                | <b>2016</b>   | <b>Other operating expenses</b> | <b>2015</b>   | <b>2014</b>   |
|--------------------------------|---------------|---------------------------------|---------------|---------------|
| Vale S.A.                      | 104           |                                 | -             | -             |
| Companhia Siderúrgica Nacional | 62            |                                 | 18,000        | -             |
| Gerdau Açominas S.A.           | 635           |                                 | -             | -             |
| Gerdau Aços Longos S.A.        | 1,543         |                                 | -             | -             |
| Ferrovias Centro Atlântica     | 7,250         |                                 | 6,517         | 15,285        |
| Sepetiba Tecon S.A.            | 830           |                                 | -             | -             |
|                                | <b>10,424</b> |                                 | <b>24,517</b> | <b>15,285</b> |

**Key management personnel**

The compensation due or paid to the Company's key management personnel, which includes its President and Executive Officers, is stated below:

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|                                 | <b>2016</b>   | <b>2015</b>   | <b>2014</b>   |
|---------------------------------|---------------|---------------|---------------|
| <u>Short-term benefits</u>      |               |               |               |
| Fees and charges                | 5,602         | 5,019         | 5,071         |
| Bonus                           | 5,598         | 5,405         | 5,612         |
| Other benefits                  | 214           | 101           | 139           |
| <u>Post-employment benefits</u> |               |               |               |
| Pension plans                   | 343           | 218           | 206           |
| <u>Other long-term benefits</u> |               |               |               |
| Long-term incentives            | 11,655        | 6,349         | 3,686         |
|                                 | <b>23,412</b> | <b>17,092</b> | <b>14,714</b> |

FS-25

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****9. Other receivables**

|  |            | <b>2016</b>   | <b>2015</b>   |
|--|------------|---------------|---------------|
| Concession and lease receivable amounts              | <b>(a)</b> | 49,390        | 42,724        |
| Judicial bonds                                       | <b>(b)</b> | 5,988         | 5,988         |
| Reduction to the recoverable value of judicial bonds | <b>(b)</b> | (5,988)       | (1,796)       |
| Other receivables                                    | <b>(c)</b> | 11,059        | 3,933         |
| Estimated losses for doubtful debts                  | <b>(d)</b> | (1,602)       | -             |
|  |            | <b>58,847</b> | <b>50,849</b> |
| Current  |            | 8,879         | 3,222         |
| Non-current  |            | 49,968        | 47,627        |

(a) Amounts receivable from concession and lease in non-current assets correspond to a favorable decision in a process involving the Granting Authority over amounts paid in the monetary adjustment of quarterly concession and lease installments from October 1997 to April 2001 (Accumulated IGP-DI variation versus monthly IGP-DI variation). Confirmed on appeal, in accordance with a court decision issued on August 8, 2013, by the Superior Court of Justice in REsp 1254786/RJ. In June 2014, judgment was given in favor of MRS, through which the Judge of the 22th Federal Court of the Judiciary Section of Rio de Janeiro determined the payment of the undisputed amount of R\$ 17,331, with the installment of the lease and concession that expired in July 2014 (see Note 21 of the 2014 financial statements). The proceeding is in the settlement process, and the decision was issued in October 2015, appointing an expert and calling on the parties to submit questions and indicate technical assistants. In January 2016, the Federal Government was notified of the decision, rejecting its appeal for the request for clarification regarding the decision that led to the expert investigation, pending review by the TRF/2 filed by the Federal Government against a decision that determined the investigation on the existence of a remaining value to be set off by MRS.

(b) Refers to the remaining balance of the judicial bonds purchased by the Company in 2010 and used in March 2011 to discharge ICMS RJ cash debts, less the reduction to the recoverable amount that in 2015 was 30% of the judicial bond balance. In 2016, the Company reassessed the recoverability of these bonds and accrued the loss of the remaining balance, increasing the provision by R\$ 4,192 (R\$ 1,796 in 2015).

(c) Refers to amounts receivable resulting from the refund of social security contribution on the healthcare agreement, sale of scrap, maintenance service provision, rents and other amounts unrelated to the railway freight service.

(d) Refers to the formation of an estimated loss on doubtful debt, related to clients with lawsuits in progress to receive overdue credits.

## 10. Inventories

|                                    |            | <b>2016</b>   | <b>2015</b>    |
|------------------------------------|------------|---------------|----------------|
| Maintenance materials              | <b>(a)</b> | 85,813        | 93,001         |
| Material under recovery process    | <b>(b)</b> | 1,269         | 5,973          |
| Ongoing imports                    |            | 1,025         | 411            |
| Fuels                              |            | 8,998         | 6,846          |
| Others                             |            | 1,537         | 805            |
| Provision for loss by obsolescence | <b>(c)</b> | (6,736)       | (5,680)        |
|                                    |            | <b>91,906</b> | <b>101,356</b> |

FS-26

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

(a) Refer to the materials that will be used in the Company's own maintenance services, especially in locomotives, wagons and permanent way.

(b) Refer to the maintenance materials that will be recovered in order to be used again in the Company's operations.

(c) Refer to the provision for loss of some maintenance materials considered obsolete or of low turnover.

**11. Taxes recoverable**

|  |            | <b>2016</b>    | <b>2015</b>    |
|--|------------|----------------|----------------|
| Tax on movement of goods and services - ICMS | <b>(a)</b> | 90,660         | 86,527         |
| (-) Provision for loss of ICMS               | <b>(a)</b> | (31,100)       | (27,034)       |
| PIS/COFINS recoverable                       | <b>(b)</b> | 57,742         | 64,011         |
| Withholding income tax                       | <b>(c)</b> | 49,322         | 50,229         |
| IRPJ/CSLL recoverable                        |            | 511            | 511            |
| Others                                       |            | 225            | 590            |
|  |            | <b>167,360</b> | <b>174,834</b> |
| Current                                      |            | 107,852        | 91,582         |
| Non-current                                  |            | 59,508         | 83,252         |

**11. Taxes recoverable**

574

- (a) Mainly refer to credits arising from acquisitions of fixed assets and purchases of inputs, net of provision for loss of non-recoverable credits.
- (b) Mainly refer to fixed asset credits recoverable in 48 installments.
- (c) Refers to withholding income tax on financial investments and gains on derivative transactions -swap. As income is taxed only on the redemption of investments and winding-up of swaps, this amount includes the provision for tax at source on these operations.

The composition of ICMS credits in the states of Rio de Janeiro and São Paulo, included in current assets, is shown below:

|                                   | <b>2016</b>   | <b>2015</b>   |
|-----------------------------------|---------------|---------------|
| ICMS credit composition - current |               |               |
| ICMS - RJ                         | 32,563        | 19,542        |
| ICMS - SP                         | 12,206        | 12,015        |
| Current total                     | <b>44,769</b> | <b>31,557</b> |

The credit balance of R\$ 44,769 will be used in 2017.

**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****12. Prepaid expenses**

|                        |            | <b>2016</b>    | <b>2015</b>    |
|------------------------|------------|----------------|----------------|
| Lease advances         | <b>(a)</b> | 165,115        | 163,457        |
| Insurance              | <b>(b)</b> | 11,858         | 2,143          |
| Other prepaid expenses |            | 7,815          | 6,351          |
|                        |            | <b>184,788</b> | <b>171,951</b> |
| Current                |            | 24,699         | 15,419         |
| Non-current            |            | 160,089        | 156,532        |

(a) The lease advances are appropriated to the cost of the services provided on the straight-line basis over the term of the leasing contract (360 months). The current installment comprises the amount of advances to be amortized in up to 365 days. In 2016, the amortized lease amount was R\$ 8,817 (R\$ 8,817 in 2015). Details of the operation are described in Note 21.

(b) Refers to prepayments of insurance and other prepaid obligations. The increase of R\$ 9,715 is especially due to the renewal of operational risk insurance policy which expires on March 31, 2018.

**13. Other current and non-current assets**

The group of other current and non-current assets is comprised as follows:

|                      | <b>2016</b> | <b>2015</b> |
|----------------------|-------------|-------------|
| 12. Prepaid expenses |             | 576         |



|                           |     |               |               |
|---------------------------|-----|---------------|---------------|
| Court deposits            | (a) | 88,307        | 61,603        |
| Advances to third parties | (b) | 7,452         | 6,853         |
| Audiovisual investment    | (c) | 551           | 1,422         |
|                           |     | <b>96,310</b> | <b>69,878</b> |
| Current                   |     | 7,452         | 6,854         |
| Non-current               |     | 88,858        | 63,024        |

(a) Refers to appellate court deposits made to permit the court to allow an appeal under the law. They are monetarily restated and recorded in non-current assets until there is a final court decision. See further details in Note 23.1.

(b) Corresponds to advances granted to suppliers and employees such as vacation advance, vacation loan and other advances.

(c) Represent the investments made for the production of Brazilian cinematographic audiovisual works, according to Law 8,685/93. The audiovisual investments are being amortized during the term of each cinematographic work.

FS-28

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****14. Fixed assets**

By their nature, fixed assets are comprised as follows:

|                                       | <b>2016</b>   |                    |                  |                                     |                  | <b>2015</b>        |                    |
|---------------------------------------|---|--------------------|------------------|-------------------------------------|------------------|--------------------|--------------------|
|                                       | <b>Improvements<br/>on third<br/>parties<br/>properties</b> | <b>Locomotives</b> | <b>Wagons</b>    | <b>Construction<br/>in progress</b> | <b>Others</b>    | <b>Total</b>       | <b>Total</b>       |
| <b>Cost</b>                           |   |                    |                  |                                     |                  |                    |                    |
| <b>On January 1</b>                   | <b>3,428,265</b>  | <b>2,561,030</b>   | <b>2,266,756</b> | <b>483,871</b>                      | <b>561,810</b>   | <b>9,301,732</b>   | <b>8,492,691</b>   |
| Additions                             | -   | -                  | -                | 607,937                             | -                | 607,937            | 851,663            |
| Transfers /<br>Reclassifications      | 442,121   | 75,660             | 87,821           | (637,353)                           | 31,751           | -                  | -                  |
| Donation<br>write-back<br>(provision) | 12,852  | -                  | (494)            | -                                   | -                | 12,358             | (6,701)            |
| Disposals                             | (12,949)  | (31,778)           | (5,937)          | (3,521)                             | (4,991)          | (59,176)           | (35,921)           |
| <b>On December 31</b>                 | <b>3,870,289</b>  | <b>2,604,912</b>   | <b>2,348,146</b> | <b>450,934</b>                      | <b>588,570</b>   | <b>9,862,851</b>   | <b>9,301,732</b>   |
| <b>Depreciation</b>                   |   |                    |                  |                                     |                  |                    |                    |
| <b>On January 1</b>                   | <b>(1,114,420)</b>  | <b>(1,025,884)</b> | <b>(748,138)</b> | -                                   | <b>(266,333)</b> | <b>(3,154,775)</b> | <b>(2,676,962)</b> |
| Additions                             | (243,687)   | (129,392)          | (127,652)        | -                                   | (49,945)         | (550,676)          | (502,405)          |
| Disposals                             | 200   | 16,081             | 2,099            | -                                   | 3,732            | 22,112             | 24,592             |
| <b>On December 31</b>                 | <b>(1,357,907)</b>  | <b>(1,139,195)</b> | <b>(873,691)</b> | -                                   | <b>(312,546)</b> | <b>(3,683,339)</b> | <b>(3,154,775)</b> |
| <b>Net carrying value</b>             |   |                    |                  |                                     |                  |                    |                    |
| <b>On December 31</b>                 | <b>2,512,382</b>  | <b>1,465,717</b>   | <b>1,474,455</b> | <b>450,934</b>                      | <b>276,024</b>   | <b>6,179,512</b>   | <b>6,146,957</b>   |

The details of fixed assets for 2015 are disclosed in Note 14 to the financial statements for 2015.

**Provision write-back**

The amount of R\$ 12,852 refers to the provision for real estate donation constituted in 2015, whose donations were made in 2016.

**Disposals**

On October 14, 2016, MRS entered into a contract for the sale of 23 GE Dash-9 locomotives and parts to Vale S.A., six (6) of which were sold and delivered to Vale S.A. in 2016, causing a negative effect of R\$ 15,191 in the fixed assets. The other 17 locomotives will be delivered in 2017.

**Capitalized loan costs**

The capitalized loan costs in 2016 was R\$ 29 (R\$ 280 in 2015). The rate used to determine the cost amount of financing subject to capitalization was 10.5% per year (10.6% in 2015), representing the Company's average financing rate.

**Construction in progress**

Construction in progress is primarily represented by expenditure incurred in the expansion, recovery and modernization of the permanent way, locomotives, wagons, and leased signaling and telecommunication systems, as well as the purchase of locomotives and wagon, which will be transferred to the final fixed asset account and depreciated from the date they are available to use.

FS-29

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****Useful life review**

In compliance with IAS 16 - Property, Plant and Equipment, the Company annually reviews the economic life of its main assets. Thus, according to a technical report issued by EY CT Valuation, as well as publication in the Brazilian Federal Gazette of December 27, 2016, from January 2017 the life of some assets and components will be changed according to the table below:

| <b>Asset groups</b>               | <b>%</b> | <b>2016</b> | <b>Years</b> | <b>%</b> | <b>2015</b> | <b>Years</b> |
|-----------------------------------|----------|-------------|--------------|----------|-------------|--------------|
| <b>Immovable assets</b>           |          |             |              |          |             |              |
| Improvements in the permanent way | 9.09     |             | 11           | 8.33     |             | 12           |
| <b>Locomotives</b>                |          |             |              |          |             |              |
| Diesel locomotives                | 3.33     |             | 30           | 4.17     |             | 24           |
| <b>Wagons</b>                     |          |             |              |          |             |              |
| Average life of components        | 16.67    |             | 6            | 20.00    |             | 5            |

The annual depreciation rates and lives of the main asset groups applied in 2016 are shown in Note 2.11.

Certain fixed asset items are provided as security for loans and financing operations. The net carrying amount of these assets is R\$ 2,446,023 (R\$ 2,527,986 in 2015).

**15. Intangible assets**

By their nature, intangible assets are comprised as follows:

|                                 | <b>2016</b>                               |  |                             | <b>2015</b>      |                  |
|---------------------------------|---|--|-----------------------------|------------------|------------------|
|                                 | <b>Concession<br/>advance<br/>payment</b> | <b>Computer<br/>systems and<br/>software</b> | <b>Ongoing<br/>projects</b> | <b>Total</b>     | <b>Total</b>     |
| <b>Cost</b>                     |   |  |                             |                  |                  |
| <b>On January 1</b>             | <b>16,834</b>                             | <b>196,882</b>                               | <b>5,487</b>                | <b>219,203</b>   | <b>209,118</b>   |
| Additions                       | 551                                       | -  | 5,382                       | 5,933            | 10,085           |
| Transfers                       | -   | 3,918  | (3,918)                     | -                | -                |
| Provision for asset losses      | -   | (546)  | -                           | (546)            | -                |
| <b>At the end of the period</b> | <b>17,385</b>                             | <b>200,254</b>                               | <b>6,951</b>                | <b>224,590</b>   | <b>219,203</b>   |
| <b>Amortization</b>             |   |  |                             |                  |                  |
| <b>On January 1</b>             | <b>(8,482)</b>                            | <b>(167,641)</b>                             | <b>-</b>                    | <b>(176,123)</b> | <b>(159,669)</b> |
| Additions                       | (444)                                     | (12,093)                                     | -                           | (12,537)         | (16,454)         |
| <b>At the end of the period</b> | <b>(8,926)</b>                            | <b>(179,734)</b>                             | <b>-</b>                    | <b>(188,660)</b> | <b>(176,123)</b> |
| <b>Net carrying value</b>       | <b>8,459</b>                              | <b>20,520</b>                                | <b>6,951</b>                | <b>35,930</b>    | <b>43,080</b>    |

The details of intangible assets for 2015 is disclosed in Note 15 to the financial statements for 2015.

FS-30

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

The part that refers to the concession advance payment (concession fee) is appropriated to the cost of the services rendered over the term of the concession agreement (360 months).

The intangible assets amortization rate, excluding concession fee, was estimated at 20% per year.

**16. Labor and social security obligations**

|  | <b>2016</b>    | <b>2015</b>    |
|--|----------------|----------------|
| PSP - Profit Sharing Plan / Bonus          | 67,303         | 65,099         |
| Provision for Vacation and Christmas bonus | 30,023         | 30,148         |
| Wages payable                              | 27,423         | 15,223         |
| Social security                            | 13,349         | 17,483         |
| FGTS                                       | 5,500          | 5,355          |
| IRRF payable                               | 3,379          | 2,323          |
| Others                                     | 12,692         | 13,171         |
|  | <b>159,669</b> | <b>148,802</b> |

**17. Tax obligations**

|                         | <b>2016</b>    | <b>2015</b>   |
|-------------------------|----------------|---------------|
| Income tax              | 102,442        | 30,240        |
| Social contribution tax | 24,425         | 15,248        |
| ICMS                    | 2,785          | 2,775         |
| COFINS                  | 14,287         | 10,353        |
| PIS                     | 2,752          | 2,178         |
| Others                  | 3,918          | 4,434         |
|                         | <b>150,609</b> | <b>65,228</b> |

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FS-31

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****18. Loans and financing**

Loans and financing are comprised as follows:

|   |           | <b>2016</b>      | <b>2015</b>      |
|---|-----------|------------------|------------------|
| <u>Local currency</u>                       |           |                  |                  |
| BNDES:                                      |           | 1,322,467        | 1,633,498        |
| FINEM                                       | (a)       | 763,937          | 910,320          |
| DULC  | (b)       | 361,424          | 432,211          |
| FINAME                                      | (c)       | 197,106          | 290,967          |
| BDMG  | (d)       | 15,860           | 24,968           |
| FINEP                                       | (e)       | 5,397            | 8,635            |
| Derivative financial instruments - swap     | <b>19</b> | 24,877           | 34,932           |
|   |           | 1,368,601        | 1,702,033        |
| Transaction costs                           |           | (2,037)          | (2,373)          |
|   |           | <b>1,366,564</b> | <b>1,699,660</b> |
| <u>Foreign currency</u>                     |           |                  |                  |
| Bank of Tokyo                               | (f)       | 244,682          | 586,490          |
| Fair value hedge adjustment - Bank of Tokyo | <b>19</b> | (721)            | -                |
| Ex-Im                                       | (g)       | 63,456           | 109,809          |
|   |           | 307,417          | 696,299          |
| Transaction costs                           |           | (590)            | (1,149)          |
|   |           | <b>306,827</b>   | <b>695,150</b>   |
| <u>Debentures</u>                           |           |                  |                  |
| 5th Issue                                   | (h)       | 214,721          | 319,738          |
| 6th Issue                                   |           | 302,617          | 302,362          |
| 7th Issue                                   |           | 673,063          | 631,258          |
|   |           | 1,190,401        | 1,253,358        |
| Transaction costs                           |           | (34,261)         | (8,973)          |
|   |           | <b>1,156,140</b> | <b>1,244,385</b> |



Finance lease

|  |     |                  |                  |
|--|-----|------------------|------------------|
| Computing Equipment                          | (i) | 317              | -                |
|  |     | <b>317</b>       | <b>-</b>         |
| Total loans and financing + transaction cost |     | <b>2,829,848</b> | <b>3,639,195</b> |
| Current                                      |     | 653,491          | 876,843          |
| Non-current                                  |     | 2,176,357        | 2,762,352        |

(a) FINEM operations, contracted with BNDES, have a nominal rate equal to the effective rate and are subject to TJLP charges plus spread of up to 3.41% per year or a fixed rate of 2.50% per year up to 5.50% per year. These funds shall be used to cover expenses aimed at reducing the number of accidents, improving the operational cycle and acquiring rolling stock, as well as building bridges, overpasses and underpasses, and social projects. During 2016, new amounts borrowed totaled R\$ 733. The final maturity of the contract is June 15, 2024. These operations are secured by commercial agreement receivables that represent at least 130% of debt service, chattel mortgage of financed assets, emerging rights and a restricted financial investment equivalent to 3 (three) financing installments payable.

FS-32

**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

(b) DULC direct operations with BNDES have a nominal rate equal to the effective rate and are subject to TJLP charges plus spread of up to 2.06% per year or fixed rate of 4.50% per year. The purpose of this operation is to finance logistical projects, expansion of the permanent way, modernization and recovery of assets, infrastructure reliability, and locomotive purchases as well as social projects. During 2016, new borrowings totaled R\$ 22,169. The final maturity of the contract is June 15, 2023. The contract is secured by commercial agreement receivables that represent at least 130% of debt service, rights emerging from concession and restricted financial investment equivalent to 3 (three) financing installments payable.

(c) FINAME , financing with BNDES resources, has a nominal rate equal to the effective rate and refers to the acquisition of wagons and locomotives, subject to TJLP charges plus spread equal to one TIR (internal rate of return) of 10.0% per year or a fixed rate of 5.50% per year. During 2016, new borrowings totaled R\$ 6,719. The final maturity of the contract is January 15, 2021. These operations have as security the chattel mortgage of the financed assets.

(d) The financing with the BDMG - Banco de Desenvolvimento de Minas Gerais - has a cost equal to the IPCA plus a fixed rate of 5.76% per year, with the purpose of acquiring equipment for the modernization of the railway network. The balance for 2016 refers to the release of the first installment of the loan in the amount of R\$ 40,000 in 2011. This contract is secured by a letter of guarantee and final maturity is December 24, 2018. The other tranche, subject to the SELIC rate plus a fixed rate of 2.00% per year, ended in December 2016.

(e) The loan with FINEP - Financiadora de Estudos e Projetos, has a fixed nominal rate equal to the effective rate corresponding to 5.00% per year. The purpose of the operation was to finance the project, whose focus is the development of ecologically sustainable alternatives for the production and use of sleepers. This contract is secured by a letter of guarantee and the final maturity is August 15, 2018.

(f) The financing with Bank of Tokyo has a fixed nominal rate equal to the effective rate corresponding to 3.05% per year. Contracted and disbursed in September 2013, this foreign currency transaction aimed to reinforce the Company's cash position for the increased investments made, as well as repay in advance, in September 2013, a funding via NCE (Export Credit Note), in order to lengthen the term of the debt and improve the Company's future repayment flow. The Company has given no collateral for this contract and the final maturity is March 18, 2019. The other financing agreed with Bank of Tokyo, disbursed in December 2011, was settled in December 2016.

(g) The financing with the US Export-Import Bank (Ex-Im) is subject to a nominal fixed rate of 3.30% per year. This operation, agreed in March 2009 and disbursed in April of the same year, had the purpose of purchasing 38 new locomotives, which constitute the collateral of the contract itself. Final maturity is March 25, 2019.

FS-33

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****(h) Debentures:**

- *5th Issue*

On July 18, 2012, Company issued R\$ 300,000 in non-convertible debentures according to CVM instruction 476. The operation has the purpose of reinforcing working capital and lengthening the Company's debt profile. The debentures were issued in an indexed series according to the CDI variation plus a 0.9% surcharge, defined after the book building process, with interest paid semi-annually throughout the issuance period and annual repayments in the 4th, 5th and 6th year. On April 11, 2016, the General Meeting of Debenture Holders of MRS 5th Issuance of Debentures resolved for the early maturity of the Debentures, by changing the current item "XVIII" of clause 6.1.2 to the following: "(xviii) a downgrade in the Issuer's risk rating, during Debentures term of effectiveness for rating "A-" or lower (national scale) assigned by Standard and Poor's, unless approved by Debenture Holders representing seventy-five per cent (75%) of the outstanding Debentures, in a meeting, being assured to the debenture holder, who has voted in favor of the declaration of Debentures early maturity, the right to have their Debentures redeemed by the Issuer within a maximum term of sixty (60) days as of the date of knowledge of the event;" and repricing CDI variation + 0.90% for CDI variation + 2.50%, from April 20, 2016 until this issue's due date. Final maturity is July 18, 2018.

- *6th Issue*

On December 10, 2013, the Company issued R\$ 300,000 in debentures with the same characteristics and conditions of the 5<sup>th</sup> issue. In addition, on April 11, 2016, the General Meeting of Debenture Holders of MRS 6<sup>th</sup> Issuance of Debentures resolved for the early maturity of the Debentures, by changing the current item "XVII" of clause 7.1 Deed of Issue to the following: "XIII - downgrade in the Issuer's risk rating, during the term of effectiveness of Debentures, to "A-" (national scale) rating or lower, assigned by the Risk Rating Agency, unless approved by Debenture Holders representing 2/3 (two-thirds) of the Outstanding Debentures, in a General Meeting of Debenture Holders;" and repricing CDI variation + 0.90% for CDI variation + 2.90%, from April 20, 2016 to the issue expiration date. Final maturity is December 10, 2019.

- *7th Issue*

On February 15, 2015, the Company issued R\$ 550,726 in debentures, of which R\$ 336,340 related to the 1<sup>st</sup> issue series and R\$ 214,386 related to the 2<sup>nd</sup> issue series. Due to the issue value correction provided in the deed, between the issue date and the settlement date, the total disbursed was R\$ 555,003.

The issuance occurred pursuant to CVM Instruction 400, and 550,726 simple, non-convertible in shares, unsecured debentures with a unit value of R\$ 1 were issued. The proceeds from the issuance shall be used in full to finance the revitalization projects of the permanent way and expansion of the approved Communication-Based Train Control (CBTC) project, and considered priority by the Ministry of Transport, which is why the debentures have a tax exemption benefit according to Law 12,431.

On April 6, 2016, the General Meeting of Debenture Holders of MRS 7th issue of Debentures resolved not to demand acceleration of the Debentures, and provided a waiver for the Debentures having their risk rating lowered by two notches, in relation to the Debenture risk classification on the issue date, until February 15, 2024 and payment of premium (flat), incident on the unit nominal value duly updated, equivalent to 4.35% for the 1st Series of Debentures and 5.35% for the 2nd Series of debentures. The premiums were paid on April 15, 2016, based on the unit nominal value updated on April 14, 2016.

FS-34

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

The first series of this issue will mature in 7 years and is subject to the IPCA + 5.9828% per year. The second series of the issue will mature in 10 years and its interest rate is IPCA + 6.4277% per year.

All debentures issued have unsecured guarantees.

(i) Finance lease:

The lease agreement signed in October 2016 and classified as financial is related to the purchase of Data Center infrastructure equipment. The said finance lease agreement has a purchase option at the end of its term.

|                       | <b>Cost</b> | <b>2016<br/>Accumulated<br/>Depreciation</b> | <b>Net</b> | <b>2015<br/>Net</b> |
|-----------------------|-------------|--|------------|---------------------|
| Data center Equipment | 329         | -  | 329        | -                   |
|                       | <b>329</b>  | <b>-</b>                                     | <b>329</b> | <b>-</b>            |

The present value and minimum future payments are:

| <b>Years</b> | <b>Present<br/>value</b> | <b>Future value</b> |
|--------------|--------------------------|---------------------|
| 2017         | 155                      | 189                 |
| 2018 to 2022 | 162                      | 173                 |
| After 2022   | -                        | -                   |
|              | <b>317</b>               | <b>362</b>          |

Repayments of non-current debt are scheduled as follows:

|               | <b>2018</b>    | <b>2019</b>    | <b>2020</b>    | <b>After<br/>2020</b> | <b>Total</b>     |
|---------------|----------------|----------------|----------------|-----------------------|------------------|
| FINAME        | 59,536         | 37,036         | 3,450          | 2,503                 | 102,525          |
| DULC          | 101,508        | 58,337         | 32,479         | 66,504                | 258,828          |
| FINEM         | 149,645        | 149,645        | 142,443        | 171,339               | 613,072          |
| Debentures    | 200,021        | 100,000        | -              | 638,557               | 938,578          |
| BDMG          | 7,919          | -              | -              | -                     | 7,919            |
| FINEP         | 2,154          | -              | -              | -                     | 2,154            |
| Bank of Tokyo | 165,569        | 82,784         | -              | -                     | 248,353          |
| Ex-Im         | 28,193         | 7,048          | -              | -                     | 35,241           |
| Finance lease | 162            | -              | -              | -                     | 162              |
|               | <b>714,707</b> | <b>434,850</b> | <b>178,372</b> | <b>878,903</b>        | <b>2,206,832</b> |

FS-35

**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

In December 2016, transaction costs of fund raising were represented as follows:

|            | Current      |              | Non-current  |              |               | After<br>2020 | Total         | Total<br>Current and<br>non-current |
|------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|-------------------------------------|
|            | 2017         | 2018         | 2019         | 2020         | 2020          |               |               |                                     |
| DULC       | 156          | 145          | 137          | 132          | 279           | 693           | 849           |                                     |
| FINEM      | 250          | 243          | 237          | 232          | 214           | 926           | 1,176         |                                     |
| FINAME     | 3            | 3            | 2            | 2            | 1             | 8             | 11            |                                     |
| Debentures | 5,631        | 5,875        | 6,115        | 6,324        | 10,316        | 28,630        | 34,261        |                                     |
| Ex-Im      | 373          | 191          | 27           | -            | -             | 218           | 591           |                                     |
|            | <b>6,413</b> | <b>6,457</b> | <b>6,518</b> | <b>6,690</b> | <b>10,810</b> | <b>30,475</b> | <b>36,888</b> |                                     |

On December 31, 2016 and 2015, the amount of transaction costs incurred in each fund raising process was as follows:

|                                | 2016   | 2015    |
|--------------------------------|--------|---------|
| FINEM                          | 733    | 192,920 |
| (-) fund raising costs         | -      | -       |
| % costs/Amount of fund raising | 0.0%   | -       |
| DULC                           | 22,169 | 61,084  |
| (-) fund raising costs         | -      | (673)   |
| % costs/Amount of fund raising | -      | -1.10%  |
| FINAME                         | 6,719  | -       |
| (-) fund raising costs         | (7)    | -       |
| % costs/Amount of fund raising | -0.1%  | -       |

18. Loans and financing

592



|                                      |          |         |
|--------------------------------------|----------|---------|
| Debentures 7 <sup>th</sup> issue     | -        | 555,003 |
| (-) fund raising costs               | -        | (8,614) |
| % costs/Amount of fund raising       | -        | -1.55%  |
| Debentures 7th issue (waiver fee)(j) | -        | -       |
| (-) fund raising costs               | (29,568) | -       |

(j) See Note 18 (h).

Financial restrictive conditions (covenants)

Loan and financing agreements have restrictive covenants related to the maintenance of certain financial indexes. The covenants' restrictive conditions remain unchanged compared to 2015 and all covenants were met on December 31, 2016 and 2015. The debentures issued by the Company also have restrictive covenants related to the maintenance of certain financial indexes as well as maintenance of minimum risk rating assigned by Standard and Poor's, and all covenants were met on December 31, 2016.

**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

**19. Derivative financial instruments**

Operations with financial instruments

The calculation of the fair value of cash equivalents and restricted cash is as follows: for applications with maturity of less than or equal to 60 days, the fair value is considered as the original value itself. If the maturity exceeds 60 days, the fair value is calculated at the interest rate agreed until the maturity, and discounted at a higher rate equivalent to 110% of the contracted rate, representing a penalty for any investment redemption during the non-liquidity period.

For loans and financing that have public market quotations with a reference interest rate, cash flow is calculated to maturity based on the contractual rate and then discounted at the current rate obtained from the public source. For loans and financing without a public interest rate source, after the flow is calculated to maturity at the contractual rate, it is discounted at the interest rate obtained from transactions similar in terms of risk and time. In case of any difficulties to identify comparable financing, the discount rate may be determined by consulting with financial institutions.

The following table shows book amounts of all transactions with financial instruments of the Company that differ from their fair value:

|   | <b>2016</b>       |                   | <b>2015</b>       |                   |
|---|-------------------|-------------------|-------------------|-------------------|
|   | <b>Book value</b> | <b>Fair value</b> | <b>Book value</b> | <b>Fair value</b> |
| <b>Liabilities</b>                          |                   |                   |                   |                   |
| Loans and financing in foreign currency     | 307,417           | 308,517           | 696,299           | 699,992           |
| <b>19. Derivative financial instruments</b> |                   |                   |                   | <b>594</b>        |

|              |                |                |                |                |
|--------------|----------------|----------------|----------------|----------------|
| <b>Total</b> | <b>307,417</b> | <b>308,517</b> | <b>696,299</b> | <b>699,992</b> |
|--------------|----------------|----------------|----------------|----------------|

The fair value calculation of loans considers the market quotation of the respective operations, except those that (i) do not have a reference market or (ii) whose liquidation (redemption value) can be made without penalty. For these cases, the fair value is equal to the value in the curve.

FS-37

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**Classification of financial instruments

The following table shows book amounts of all transactions with financial instruments of the Company and their respective classification:

|  | <b>2016</b>                               |                       |                                  |                | <b>2015</b>           |                                  |                  |
|--|---|-----------------------|----------------------------------|----------------|-----------------------|----------------------------------|------------------|
|  | <b>Derivatives<br/>used for<br/>hedge</b> | <b>Fair<br/>value</b> | <b>Loans and<br/>receivables</b> | <b>Total</b>   | <b>Fair<br/>value</b> | <b>Loans and<br/>receivables</b> | <b>Total</b>     |
| <b>Assets</b>  |   |                       |                                  |                |                       |                                  |                  |
| Cash and cash equivalents  | -   | -                     | 296,099                          | 296,099        | 7,834                 | 619,791                          | 627,625          |
| Restricted cash  | -   | -                     | 49,065                           | 49,065         | -                     | 43,850                           | 43,850           |
| Receivables  | -   | -                     | 87,566                           | 87,566         | -                     | 74,095                           | 74,095           |
| Related parties  | -   | -                     | 298,747                          | 298,747        | -                     | 199,709                          | 199,709          |
| Gains on transactions with derivative financial instruments - swap | 85,522                                    | -                     | -                                | 85,522         | 269,633               | -                                | 269,633          |
| <b>Total</b>   | <b>85,522</b>                             | <b>-</b>              | <b>731,477</b>                   | <b>816,999</b> | <b>277,467</b>        | <b>937,445</b>                   | <b>1,214,912</b> |

|                    | <b>2016</b>                               |                       |  |              | <b>2015</b>           |  |              |
|--------------------|---|-----------------------|--|--------------|-----------------------|--|--------------|
|                    | <b>Derivatives<br/>used for<br/>hedge</b> | <b>Fair<br/>value</b> | <b>Other<br/>financial<br/>liabilities</b> | <b>Total</b> | <b>Fair<br/>value</b> | <b>Other<br/>financial<br/>liabilities</b> | <b>Total</b> |
| <b>Liabilities</b> |   |                       |  |              |                       |  |              |
| Suppliers          | -   | -                     | 241,261                                    | 241,261      | -                     | 251,222                                    | 251,222      |
| Related parties    | -   | -                     | 19,334                                     | 19,334       | -                     | 18,966                                     | 18,966       |
|                    | -   | -                     | 1,343,724                                  | 1,343,724    | -                     | 1,667,101                                  | 1,667,101    |

|   |               |              |                  |                  |               |                  |                  |
|---|---------------|--------------|------------------|------------------|---------------|------------------|------------------|
| Loans and financing in R\$  |               |              |                  |                  |               |                  |                  |
| Loans and financing in USD  | -             | -            | 308,138          | 308,138          | -             | 696,299          | 696,299          |
| Debentures  | -             | -            | 1,190,401        | 1,190,401        | -             | 1,253,358        | 1,253,358        |
| Losses on transactions with derivative financial instruments - swap | 21,924        | 2,953        | -                | 24,877           | 34,932        | -                | 34,932           |
| Fair value hedge adjustment - Bank of Tokyo                         | (721)         | -            | -                | (721)            | -             | -                | -                |
| <b>Total</b>  | <b>21,203</b> | <b>2,953</b> | <b>3,102,858</b> | <b>3,127,014</b> | <b>34,932</b> | <b>3,886,946</b> | <b>3,921,878</b> |

### Derivative financial instruments

The Company has derivative financial instruments to protect itself from risks related to foreign currency and interest rate.

The derivative financial instruments are initially recognized at the fair value on the date the derivatives contract is signed, and remeasured thereafter at the fair value. The derivatives are presented as financial assets when the instrument's fair value is positive, and as financial liabilities when the fair value is negative.

While derivative transactions are intended to protect the Company from any oscillations arising from its exposure to market risks, it was decided not to adopt the hedge accounting methodology for most of the operations.

However, as mentioned in Note 2.7, since April 1, 2016, the Company chose to designate a cross-currency swap as a Fair Value Hedge, protecting thus the fair value of the hedged item, which is the debt contracted with Bank of Tokyo in September 2013. Swap operations, which, on December 31, 2016, showed a receivable net balance of R\$ 60,645 (R\$234,701 in 2015), were accounted for as income.

FS-38

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

The Company documented such hedge as a Fair Value Hedges after the tests showed that it is expected that the hedge is highly effective in offsetting the changes in fair value of the hedged item.

From the swap designation as a Fair Value Hedge, the variation of the hedge fair value is still registered in the financial statements, but at the same time the variation of the designated risk fair value, subject of the hedge, is calculated and registered in the liabilities against the financial result.

|  | <b>Fair Value Hedge Object</b>          |                        |
|--|---|------------------------|
|  | <b>2016</b>                             | <b>2015</b>            |
| Debt   | 244,682                                 | 293,183                |
| Fair value hedge adjustment                                  | (721)                                   | -                      |
|  | <b>Impact on Financial Result</b>       |                        |
|  | <b>2016</b>                             | <b>2015</b>            |
| <u>Financial income</u>                                      |   |                        |
| Fair value hedge adjustment                                  | 1,921                                   | -                      |
| <u>Financial expense</u>                                     |   |                        |
| Fair value hedge adjustment                                  | (1,200)                                 | -                      |
| Net financial income   | 721                                     | -                      |
|  | <b>Reference amount (notional) 2016</b> | <b>Fair value 2016</b> |
| <b>Derivative designated for Fair Value Hedge accounting</b> |   |                        |
| <b>Contract type</b>   |   |                        |
| Swap contracts   |   |                        |
| Asset position   |   |                        |
| Fixed Dollar (fixed Dollar for CDI real)                     | 169,680                                 | 247,595                |
| Liability position   |   |                        |
| CDI Real (fixed Dollar for CDI real)                         | 169,680                                 | (172,774)              |
| 19. Derivative financial instruments                         |   | 598                    |

|  |               |
|--|---------------|
| Total swap contracts                         | 72,821        |
| Income tax provision on swap gains           | (11,223)      |
| Total income net swap contracts              | 63,598        |
| Classified                                   |               |
| In non-current assets                        | 85,522        |
| In current liabilities (Loans and financing) | (21,924)      |
|  | <b>63,598</b> |

FS-39

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

| <b>Undesignated derivatives</b>              | <b>Reference amount (notional)</b> |             | <b>Fair value</b> |                |
|--|------------------------------------|-------------|-------------------|----------------|
|  | <b>2016</b>                        | <b>2015</b> | <b>2016</b>       | <b>2015</b>    |
| <b>Contract type</b>                         |                                    |             |                   |                |
| Hedge contracts                              |                                    |             |                   |                |
| Asset position                               |                                    |             |                   |                |
| Fixed Dollar (fixed Dollar for CDI real)     | 62,701                             | 411,185     | 62,350            | 698,815        |
| Liability position                           |                                    |             |                   |                |
| CDI Real (fixed Dollar for CDI real)         | 62,701                             | 411,185     | (65,303)          | (421,945)      |
| Total hedge contracts                        |                                    |             | (2,953)           | 276,870        |
| Income tax provision on hedge gains          |                                    |             | -                 | (42,169)       |
| Total income on net hedge contracts          |                                    |             | (2,953)           | 234,701        |
| <b>Classified</b>                            |                                    |             |                   |                |
| In current assets                            |                                    |             | -                 | 136,577        |
| In non-current assets                        |                                    |             | -                 | 133,056        |
| In current liabilities (Loans and financing) |                                    |             | (2,953)           | (34,932)       |
|  |                                    |             | <b>(2,953)</b>    | <b>234,701</b> |

The Company has only swap derivative instruments. As for the swap asset leg, tied to a fixed rate plus U.S. dollar exchange variation, the amount is calculated at the agreed rate up to the maturity date and then discounted at the current rate corresponding to the remaining term between maturity and present date. Finally, the amount resulting from this calculation is converted at the current exchange rate.

For the liability leg, which is tied to a given CDI percentage, the value is calculated up to the maturity date by applying such percentage. Then this value is discounted at 100% of the CDI rate to the present date.



FS-40

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**MRS Logística S.A.****Notes to the financial statements**

at December 31, 2016

In thousands of reais, unless otherwise stated

| Description                   | Notional value | 2016<br>Fair<br>value | Maturities | Notional value | 2015<br>Fair<br>value | Maturities |
|-------------------------------|----------------|-----------------------|------------|----------------|-----------------------|------------|
| <b>Swap contracts</b>         |                |                       |            |                |                       |            |
| <b>Asset position</b>         |                |                       | Mar/17     |                |                       | Mar/16     |
| Foreign<br>currency           | 232,381        | 309,945               | to         | 411,185        | 698,815               | to         |
| <b>Liability<br/>position</b> |                |                       | Mar/19     |                |                       | Mar/19     |
| Rates (fixed)                 | 232,381        | 238,077               |            | 411,185        | 421,945               |            |

The Company's derivative financial instruments are with the following counterparties:

| Entity                | MRS<br>Receives | MRS Pays           | Start Date | Maturity<br>Date | Contracted<br>Notional<br>Value (USD) | Fair Value<br>2016 (R\$)<br>Asset Leg | Fair Value<br>2016 (R\$)<br>Liability<br>Leg | Gain (loss)<br>(R\$) Asset -<br>Liability (*) |
|-----------------------|-----------------|--------------------|------------|------------------|---------------------------------------|---------------------------------------|--|---|
| <b>Swap contracts</b> |                 |                    |            |                  |                                       |                                       |  |   |
| Santander             |                 |                    | Dec/28/16  | Jun/26/17        | 7,700                                 | 25,126                                | 25,601                                       | (475)   |
| Itaú                  | USD +           |                    | Dec/29/16  | Dec/25/17        | 3,900                                 | 12,672                                | 12,681                                       | (9)   |
| Banco do<br>Brasil    | 2.07%p.a.<br>to | 100% to<br>108% of | Jun/27/16  | Mar/27/17        | 7,450                                 | 24,552                                | 27,021                                       | (2,469)                                       |
| Bank of<br>Tokyo      | 3.49%p.a.       | CDI                | Dec/18/13  | Mar/15/19        | 75,000                                | 247,595                               | 172,774                                      | 74,821  |
| <b>Total</b>          |                 |                    |            |                  | <b>94,050</b>                         | <b>309,945</b>                        | <b>238,077</b>                               | <b>71,868</b>                                 |

(\*) Amounts gross of Withholding Income Tax of R\$11,223, totaling a net derivative position of R\$60,645.

### 19.1. Fair value hierarchy

The Company uses the following hierarchy to determine and disclose the financial instruments fair value:

- Level 1: Financial instruments that have data from an active market (unadjusted quoted price) with daily accessibility, including at the fair value measurement date.
- Level 2: Financial instruments that have data derived from an active market (unadjusted quoted price) not included in Level 1, extracted from a pricing model based on observable market data.
- Level 3: The instruments classified as being Level 3 are those whose valuations extracted from a pricing model based on non-observable data.

The Company's derivative financial instruments, having a receivable net balance of R\$60,645 on December 31, 2016, as well as the financial instruments linked to cash (including cash, cash equivalents and restricted cash) have been classified as Level 2 in the fair value hierarchy. There are no financial instruments rated as Level 3 or Level 1 held by the Company.

During 2016, there were no transfers between levels.

FS-41

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

|  | <b>2016</b>       |              | <b>2015</b>       |              |
|--|-------------------|--------------|-------------------|--------------|
|  | <b>Fair value</b> | <b>Level</b> | <b>Fair value</b> | <b>Level</b> |
| <b>Assets (Liabilities)</b>                    |                   |              |                   |              |
| Derivative financial instruments - assets      | 85,522            | 2            | 269,633           | 2            |
| Derivative financial instruments - liabilities | (24,877)          | 2            | (34,932)          | 2            |
| Cash and cash equivalents                      | 296,099           | 2            | 627,625           | 2            |
| Restricted cash                                | 49,065            | 2            | 43,850            | 2            |
| Receivables                                    | 87,566            | (*)          | 74,095            | (*)          |
| Related parties                                | 298,747           | (*)          | 199,709           | (*)          |

(\*) There is no level rating for these financial instruments in the fair value hierarchy.

**19.2. Objectives and policies for the financial risk management**

The Company's main financial liabilities that are not derivatives, since they refer to loans, trade accounts payable and other accounts payable. These financial liabilities are mostly intended to raise funds for the Company's operations. The Company has loans and other credits, trade accounts receivable and other accounts receivable, cash deposits and short-term deposits that result directly from its operations, and also contracts transactions with derivatives.

The Company is exposed to market risk, credit risk and liquidity risk.

Senior management oversees the management of these risks, supported by a finance committee of the Board of Directors, thus contributing to maintain a financial risk governance structure suitable for the Company.

The finance committee recommends actions to the Company's senior management so that activities related to financial risks are governed by appropriate policies and procedures approved by the Board of Directors. All activities involving derivatives are aimed at managing risks, and there are no derivative transactions for speculative purposes. The financial risk management policy is reviewed and approved by the Board of Directors on an annual basis.

The finance committee reviews and establishes a management policy for each risk, intended mainly to reduce any unexpected financial or economic situation that may impact the Company's results for its planned cash flow. As a second purpose, we seek to minimize the likelihood of: (i) unforeseen requirement of additional fund raising; and (ii) MRS breaching financial covenants previously assumed.

As a key risk management mechanism, internal controls used by the Company's management are focused on monitoring the percentage of debt in foreign currency that is currently protected by derivative financial instruments. For this reason, most of the Company's exposure to foreign exchange risk has been covered by swap contracts.

Additionally, the Company not only monitors the results of these transactions at their fair value, but also simulates deterioration scenarios for relevant market variables, evaluating stress situations and their respective financial impact.

**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

### **19.3. Policy for use of derivative financial instruments**

The Company's policy is to mitigate its exposure to market risks, seeking to reduce the financial impact of exchange rate and interest rate fluctuations. This policy is implemented by strategically monitoring assets and liabilities exposed to such variables, along with using derivative operations that allow controlling the risks involved.

Derivative transactions basically occur through an exchange rate swap versus CDI percentage, all of them with a first-class bank as a counterparty and involving fixed rates in foreign currency, with no margin deposit as collateral. It is noteworthy that all the derivative contracts are intended to reduce risk exposure and are not speculative in nature.

### **19.4. Market risk**

Market risk is the risk that the future cash flow fair value of a financial instrument has of fluctuating due to market price variations. Market prices comprise three types of risk: interest rate risk, exchange rate risk, and price risk, which may be of commodities or shares, among others, which will be detailed below. Financial instruments affected by market risk include loans payable, deposits, financial instruments available for sale and measured at fair value through profit or loss, and derivative financial instruments.

#### **(a) Interest rate risk**

The interest rate risk arises from the possibility of the Company being subject to financial losses caused by changes in interest rates to which it is exposed.

The Company has significant liabilities subject to local floating interest rates such as CDI, TJLP - Long-Term Interest Rate and IPCA.

The risks associated with CDI, TJLP and IPCA are assessed by sensitivity analysis, where rates are increased by 25% (scenario I) and 50% (scenario II) against the rates of the likely scenario adopted by the Company, by using market forecasts for 2017 based on the FOCUS market report published by the Central Bank of Brazil, and TJLP, on December 31, 2016.

In the table below, note that, on the base date of December 31, 2016, the increase of 50% both in CDI and TJLP (scenario II) represents a loss lower than 5% (5% in 2015) and increased Net Liability Position of about R\$ 60,350 (R\$ 74,700 in 2015) when compared to the likely scenario, which is why the Company opted to not use derivative instruments to minimize such exposure.

FS-43

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated***In millions of reais*

|                                    | <b>Base</b>    |                    |                   |                    |
|------------------------------------|----------------|--------------------|-------------------|--------------------|
|                                    | <b>2016</b>    | <b>Likely 2017</b> | <b>Scenario I</b> | <b>Scenario II</b> |
| <b>CDI</b>                         | 13.63%         | 11.44%             | 14.31%            | 17.17%             |
| <b>TJLP</b>                        | 7.50%          | 7.50%              | 9.38%             | 11.25%             |
| <b>IPCA</b>                        | 6.29%          | 4.87%              | 6.09%             | 7.31%              |
| <b><u>Liabilities</u></b>          | <b>1,973.1</b> | <b>2,100.7</b>     | <b>2,140.1</b>    | <b>2,179.5</b>     |
| TJLP Debt                          | 528.8          | 536.4              | 545.8             | 555.3              |
| CDI Debt                           | 517.3          | 576.5              | 591.3             | 606.1              |
| IPCA Debt                          | 688.9          | 722.5              | 730.9             | 739.2              |
| CDI Swap Liability Leg             | 238.1          | 265.3              | 272.1             | 278.9              |
| <b><u>Assets</u></b>               | <b>321.6</b>   | <b>358.4</b>       | <b>367.6</b>      | <b>376.8</b>       |
| Financial applications             | 321.6          | 358.4              | 367.6             | 376.8              |
| <b><u>Net exposed position</u></b> | <b>1,651.5</b> | <b>1,742.3</b>     | <b>1,772.5</b>    | <b>1,802.7</b>     |

|                               | <b>Book value</b> |                |
|-------------------------------|-------------------|----------------|
|                               | <b>2016</b>       | <b>2015</b>    |
| <b>Fixed rate instruments</b> |                   |                |
| Financial assets              | -                 | -              |
| Financial liabilities         | 793,992           | 970,503        |
|                               | <b>793,992</b>    | <b>970,503</b> |

(a) Interest rate risk

608



**Floating rate instruments**

|                       |                  |                  |
|-----------------------|------------------|------------------|
| Financial assets      | 345,164          | 671,475          |
| Financial liabilities | 2,047,867        | 2,646,255        |
|                       | <b>2,393,031</b> | <b>3,317,730</b> |

**(b) Exchange rate risk**

The Company's results are subject to significant variations due to the volatility effects of exchange rates on liabilities in a currency other than its functional currency.

Especially the exposure to currency risk (exchange rate risk) is concentrated on purchases and loans made primarily in US dollar, which closed 2016 with devaluation of 16.87% (47.01% in 2015) against the real.

FS-44

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

|                                     | <b>2016</b>      | <b>2015</b>      |
|-------------------------------------|------------------|------------------|
| <b>Foreign currency assets</b>      |                  |                  |
| Ongoing imports                     | 1,025            | 411              |
| Advances to suppliers               | -                | 82               |
| Swap financial instruments          | 309,945          | 698,815          |
|                                     | <b>310,970</b>   | <b>699,308</b>   |
| <b>Foreign currency liabilities</b> |                  |                  |
| Suppliers                           | (18,505)         | (38,432)         |
| Loans and financing                 | (307,417)        | (696,299)        |
|                                     | <b>(325,922)</b> | <b>(734,731)</b> |
| <b>Net exposure</b>                 | <b>(14,952)</b>  | <b>(35,423)</b>  |

Below is presented the variations on the Company's assets and liabilities linked to the exchange rate arising from applying stress scenarios. It was decided to keep the asset leg of the swap separate so as to make more evident the effect on derivatives.

The following sensitivity analysis refers to the position on December 31, 2016, and seeks to simulate how stress risk variables can affect the Company. The first step was to identify the key factors that may potentially generate losses for results, which is comprised of the exchange rate. The analysis started from a base scenario represented by the book amount of operations i.e. taking into account the selling rate of December 31, 2016, and interest accrued to that date. Moreover, three scenarios were drawn up, I, II and III, representing, respectively, the likely scenario and potential 25% and 50% deterioration scenarios in risk variable.

To conduct this analysis, the Company uses as a basis for the probable scenario the exchange rate at the end of 2017, disclosed in the latest Focus - Bacen Report prior to year-end. Based on the likely exchange rate, the 25% and 50% risk deterioration scenarios are produced.

The following tables represent the sensitivity analysis showing the net effect resulting from these stress factors in exchange rates for years 2016 and 2015, respectively.

**Dollar Appreciation Risk - 2017**

*R\$ Millions*

| <b>Transaction</b>                      | <b>Likely Scenario<br/>I</b> | <b>Scenario II</b> | <b>Scenario III</b> |
|---|------------------------------|--------------------|---------------------|
| Hedge - Swap Asset Leg                  | 21.0                         | 82.7               | 165.5               |
| Debt in USD                             | (20.8)                       | (82.1)             | (164.1)             |
| <b>Net Operation Increased Risk USD</b> | <b>0.2</b>                   | <b>0.6</b>         | <b>1.4</b>          |

FS-45

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

|                           | <b>Exposure</b>       | <b>Likely Exposure</b> | <b>Real</b> | <b>Expected</b> | <b>Impact</b> |            |
|---------------------------|-----------------------|------------------------|-------------|-----------------|---------------|------------|
|                           | <b>(R\$ Millions)</b> | <b>(R\$ Millions)</b>  |             | <b>Rate</b>     | <b>25%</b>    | <b>50%</b> |
| Swap Asset Leg in Dollars | 310                   | 331                    | 3.2591      | 3.48            | 4.35          | 5.22       |
| Debt in Dollars           | (307)                 | (328)                  | 3.2591      | 3.48            | 4.35          | 5.22       |

These transactions are primarily made in Real and Dollar.

**(c) Credit risk**

Refers to the possibility of the Company incurring losses due to default by any counterparty or financial institution in which it deposits resources or financial investments. In order to mitigate these risks, the Company adopts as a practice the analysis of the financial and equity situation of its counterparties, as well as defining the credit limits and constantly monitoring outstanding accounts.

|   | <b>2016</b>    | <b>2015</b>      |
|---|----------------|------------------|
| Cash and cash equivalents               | 296,099        | 627,625          |
| Restricted cash                         | 49,065         | 43,850           |
| Receivables                             | 87,566         | 74,095           |
| Related parties                         | 298,747        | 199,709          |
| Derivative financial instruments - swap | 85,522         | 269,633          |
| <b>Total</b>                            | <b>816,999</b> | <b>1,214,912</b> |

**(i) Receivables****(c) Credit risk**

The Company has accounts receivable concentrated in some big customers, which are also its related parties (Note 8), representing, on December 31, 2016, 77.33% of the total accounts receivable (72.94% in 2015).

Such customers require transportation of cargo considered "captive" and have the same credit policy, determined in their service agreements. For such customers, the credit risk is relatively low due to the mitigating procedures defined in the agreement.

For customers with transportation of cargo not "captive", the Company adopts the credit policies determined by its management, which aim to reduce problems arising from customer default. In these cases, the Company performs a daily management of credit and collection. In case of default, the collection is carried out with the direct involvement of managers responsible for the commercial agreements and may even result in the temporary suspension of service provision.

**(ii) Financial instruments and cash deposits**

The Company is subject to credit risk associated with the financial investments that it makes, in view of the risk of insolvency of the institutions where the Company keeps its investments, which may result in a total or partial loss of the invested funds. On December 31, 2016, the exposure in cash and cash equivalents of the Company was R\$ 296,099 (R\$ 627,625 in 2015), which were held in bank accounts, applications in CDB or operations that had a formal commitment of repurchase by financial institutions.

**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

**(d) Liquidity risk**

The Company's operations are capital-intensive and part of such investment is financed by loans and financing. This leverage, as shown in the table below, generates a need for cash, but the Company's investment is highly feasible and it is possible to make adjustments throughout the year as the business evolves.

The Company's current cash position is considered robust and, throughout 2017, will be reinforced both from strong cash generation and new long-term funding via the financial market and BNDES, which is already internally directed and strategically distributed both in the first and second halves of 2017. These resources will cover part of the estimated amount of investments for the year.

The Company currently has long-term financing lines already approved by financial institutions. However, due to the comfortable cash position and resilient cash generation, Management evaluates internally the best time at which to draw down such funding.

The table below summarizes the Company's maturity profile of financial liabilities on December 31, 2016, based on undiscounted contractual payments.

|  | Balance<br>2016 | Up to 6<br>months | Expected Cash Flow |             |                                     |
|--|-----------------|-------------------|--------------------|-------------|-------------------------------------|
|  |                 |                   | 6 - 12<br>months   | 1 - 2 years | 2 - 5 years<br>More than<br>5 years |
| <b>Non-derivative financial liabilities (assets)</b> | 2,791,025       |                   |                    |             |                                     |

|                                       |         |         |         |         |         |
|---------------------------------------|---------|---------|---------|---------|---------|
| Loans, financing and debentures (R\$) | 193,624 | 390,731 | 714,558 | 943,522 | 548,590 |
|---------------------------------------|---------|---------|---------|---------|---------|

**Derivative financial liabilities (assets)**

|                                   |          |       |        |        |          |   |
|-----------------------------------|----------|-------|--------|--------|----------|---|
| <i>Swaps used for hedge (USD)</i> | (60,645) | 2,944 | 10,971 | 10,962 | (85,522) | - |
|-----------------------------------|----------|-------|--------|--------|----------|---|

|  | <b>Balance<br/>2015</b> | <b>Up to 6<br/>months</b> | <b>Expected Cash Flow</b> |                    |                    | <b>More than<br/>5 years</b> |
|--|-------------------------|---------------------------|---------------------------|--------------------|--------------------|------------------------------|
|  |                         |                           | <b>6 - 12<br/>months</b>  | <b>1 - 2 years</b> | <b>2 - 5 years</b> |                              |
| <b>Non-derivative financial liabilities (assets)</b> |                         |                           |                           |                    |                    |                              |
| Loans, financing and debentures (R\$)                | 3,558,432               | 196,404                   | 589,566                   | 582,881            | 742,899            | 1,446,682                    |
| <b>Derivative financial liabilities (assets)</b>     |                         |                           |                           |                    |                    |                              |
| <i>Swaps used for hedge (USD)</i>                    | (234,701)               | (1,401)                   | (132,702)                 | -                  | -                  | (100,598)                    |

It is worth mentioning that the non-derivative financial liabilities that have some sort of collateral are detailed in Note 18. Derivative financial liabilities do not have any type of guarantee.

FS-47

**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated***Capital management*

Management's policy is to maintain a solid capital base to warrant investor, creditor and market trust and to ensure the future development of the business. Management monitors the return on invested capital considering the results of economic activities in operational segments. The aim is to achieve a return compatible with its capital cost annually reviewed through the concept of Weighted Average Cost of Capital. Management also monitors the level of dividends paid to common and preferred shareholders.

The debt to equity ratio at the end of the year is presented below:

|                               | <b>2016</b>   | <b>2015</b>   |
|-------------------------------|---------------|---------------|
| Total liabilities             | 4,269,997     | 4,938,844     |
| (-) Cash and cash equivalents | 296,099       | 627,625       |
| (-) Restricted cash           | 49,065        | 43,850        |
| Net debt                      | 3,924,833     | 4,267,369     |
| Total equity                  | 3,302,808     | 2,984,124     |
| Debt to equity ratio          | <b>1.1883</b> | <b>1.4300</b> |

**20. Dividends payable**

The Company's bylaws provide for a minimum annual dividend consisting of 25% of the net profit, calculated according to corporate legislation.



|  | <b>2016</b>    | <b>2015</b>    |
|--|----------------|----------------|
| Net profit for the year                  | 417,545        | 295,798        |
| Appropriation to reserves                | (20,877)       | (14,790)       |
| Base net profit for determining dividend | <b>396,668</b> | <b>281,008</b> |
| Minimum mandatory dividends - 25%        | 99,167         | 70,252         |
| Dividends payable from previous years    | 94             | 146            |
| <b>Total dividends payable</b>           | <b>99,261</b>  | <b>70,398</b>  |

FS-48

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****21. Concession and lease payable**

|                    | <b>2016</b>    | <b>2015</b>    |
|--------------------|----------------|----------------|
| Concession payable | 6,810          | 6,525          |
| Lease payable      | 129,381        | 123,969        |
|                    | <b>136,191</b> | <b>130,494</b> |
| Current            | 67,803         | 61,785         |
| Non-current        | 68,388         | 68,709         |

These payables refer to the recognition of obligations to be paid for the concession and lease incurred up to the balance sheet date. The current liabilities are recorded on the straight-line accrual basis, over the period of the agreement (360 months) and charged to costs of services. The recorded amount in non-current liabilities refers to the grace period which was recognized according to the accrual basis and is being settled in each of the installments paid quarterly.

The concession and lease agreements are enforceable in nature and provide that for the operation of railway transportation services and leasing of network and material used for the provision of these services, the Company will pay the total of 116 quarterly installments, due in the months of January, April, July and October of each year. On December 31, 2016, 39 quarterly installments of R\$ 84,269, totaling R\$ 3,288,491, remained. These amounts include the contractual interest of 10% p.a. and monetary restatement up to December 31, 2016, based on the latest contractual index, the IGP-DI - General Price Index - Internal Availability.

The flow of future payments of concession and lease is as follows:

|            | <b>2017</b>    | <b>In up to 5<br/>years</b> | <b>More than 5<br/>years</b> | <b>Total</b>     |
|------------|----------------|-----------------------------|------------------------------|------------------|
| Concession | 16,852         | 84,260                      | 63,195                       | 164,307          |
| Lease      | 320,224        | 1,601,120                   | 1,200,840                    | 3,122,184        |
|            | <b>337,076</b> | <b>1,685,380</b>            | <b>1,264,035</b>             | <b>3,286,491</b> |

In January 2017, the Company paid the 78<sup>th</sup> installment of the lease and concession, amounting to R\$ 84,269 (R\$ 80,056 and R\$ 4,213, respectively).

FS-49

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****22. Income tax and social contribution**

(a) Taxes on profit

|  | <b>2016</b>    | <b>2015</b>    | <b>2014</b>    |
|--|----------------|----------------|----------------|
| <b>Profit before income tax and social contribution</b>  | <b>661,147</b> | <b>451,738</b> | <b>575,657</b> |
| Standard tax rates                                       | 34%            | 34%            | 34%            |
| <b>IRPJ/CSLL at standard rates</b>                       | <b>224,790</b> | <b>153,591</b> | <b>195,723</b> |
| <b>Adjustments to reflect effective rate</b>             | <b>18,812</b>  | <b>2,349</b>   | <b>1,173</b>   |
| Inventory adjustment                                     | 4,910          | (167)          | 1,960          |
| Donation expenses  | 4,374          | 352            | 531            |
| Loss on audiovisual investment                           | 296            | 355            | 145            |
| Citizen Project expenses                                 | 337            | 123            | 164            |
| Executive board bonus                                    | 2,435          | 1,736          | 2,022          |
| Tax incentives (PAT, Rouanet, FIA, Sports, Audio Visual) | (11,716)       | (5,166)        | (6,100)        |
| Non-deductible write-off of bonds                        | 14,419         | -              | -              |
| Others   | 3,757          | 5,116          | 2,451          |
| <b>IRPJ/CSLL in the results for the year</b>             | <b>243,602</b> | <b>155,940</b> | <b>196,896</b> |
| Current  | 297,221        | 123,208        | 149,484        |
| Deferred   | (53,619)       | 32,732         | 47,412         |
| <b>IRPJ/CSLL in the results for the year</b>             | <b>243,602</b> | <b>155,940</b> | <b>196,896</b> |
| Total effective tax rate                                 | 36.85%         | 34.52%         | 34.21%         |
| Total effective tax rate - current                       | 44.96%         | 27.27%         | 25.97%         |
| Total effective tax rate - deferred                      | -8.11%         | 7.25%          | 8.24%          |

FS-50

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

(b) Deferred income tax and social contribution

Deferred tax balances recorded in assets and liabilities were calculated on temporary differences and are as follows:

|   | <b>2016</b>      | <b>2015</b>      |
|---|------------------|------------------|
|   | <b>IRPJ/CSLL</b> | <b>IRPJ/CSLL</b> |
| <b>Assets</b>   |                  |                  |
| Contingency provisions  | 105,952          | 83,287           |
| Various provisions  | 22,577           | 47,101           |
| Asset loss provisions   | 6,000            | 8,280            |
| ICMS loss provisions  | 10,574           | 9,192            |
| Health insurance liabilities                                  | 1,088            | 863              |
| Others  | 86               | 113              |
| <b>Total assets</b>   | <b>146,277</b>   | <b>148,836</b>   |
| <b>Liabilities</b>  |                  |                  |
| Depreciation  | 245,589          | 230,874          |
| Wagons and locomotives - accelerated depreciation             | 109,374          | 105,427          |
| Interest capitalization                                       | 26,483           | 29,079           |
| Derivative financial instruments - swap                       | 23,711           | 93,554           |
| Accelerated R&D depreciation 2008 / 2009 / 2012 Law 11,196/05 | 7,561            | 9,923            |
| Actuarial liability gain on health insurance                  | 3,348            | 3,685            |
| Others  | 396              | 435              |
| <b>Total liabilities</b>                                      | <b>416,462</b>   | <b>472,977</b>   |
| <b>Total, net</b>   | <b>270,185</b>   | <b>324,141</b>   |

Deferred income tax and social contribution on temporary differences are expected to be used upon settlement of contingencies and other deductible temporary differences.

The amount of R\$ 416,462 (R\$ 472,977 in 2015) referring to the deferred liability includes the balance of the RTT - Transitory Tax System adjustments. Due to such adjustments, the Company recorded deferred IRPJ/CSLL on differences between corporate and tax bases, in the amount of R\$ 241,001, which is being amortized for the remaining term of the concession agreement in accordance with the rules provided for in Article 69 of Law 12,793/14 and 174 of Normative Instruction RFB 1515/14.

The amortized value in 2016 was R\$ 20,224 (R\$ 20,224 in 2015), representing a balance of R\$ 200,553 in December 2016 (R\$ 220,777 in 2015).

FS-51

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

The net movement of the deferred tax account is as follows:

|   | <b>2016</b>    | <b>2015</b>    |
|---|----------------|----------------|
| On January 1                                      | <b>324,141</b> | <b>291,747</b> |
| Contingency provisions                            | (22,665)       | (40,492)       |
| Various provisions                                | 24,524         | (11,025)       |
| Health insurance provisions                       | (225)          | 24             |
| Asset loss provisions                             | 2,280          | (1,640)        |
| ICMS loss provisions                              | (1,382)        | (7,297)        |
| Depreciation                                      | 14,715         | 25,836         |
| Wagons and locomotives - accelerated depreciation | 3,947          | 9,002          |
| Interest capitalization                           | (2,596)        | (2,511)        |
| Derivative financial instruments - swap           | (69,843)       | 63,131         |
| Actuarial liability gain on health insurance      | (337)          | (338)          |
| Accelerated R&D depreciation 2008/2009/2012       |                |                |
| Law 11,196/05                                     | (2,362)        | (2,268)        |
| Others  | (12)           | (28)           |
| On December 31                                    | <b>270,185</b> | <b>324,141</b> |

**23. Provisions**

Provisions consisted of the following:

|   |             | <b>2016</b> | <b>2015</b> |
|---|-------------|-------------|-------------|
| Provisions for contingencies            | <b>23.1</b> | 311,623     | 244,961     |
| Provisions for post-employment benefits | <b>23.2</b> | 3,616       | 3,320       |
| ILP provisions (Long-term incentives)   |             | 11,656      | 6,214       |
| Provisions for railway accidents        |             | 1,779       | 3,434       |

**23. Provisions****624**



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|                  |                |                |
|------------------|----------------|----------------|
| Other provisions | 18,657         | 18,289         |
|                  | <b>347,331</b> | <b>276,218</b> |
| Current          | 24,664         | 23,488         |
| Non-current      | 322,667        | 252,730        |

FS-52

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****23.1 Provisions for contingencies**

Provisions for contingent liabilities are recorded as non-current liabilities and are as follows:

|                             | <b>Social<br/>security and<br/>labor</b> | <b>Civil</b>  | <b>Tax</b>     | <b>Total<br/>accrued<br/>liability</b> |
|-----------------------------|--|---------------|----------------|--|
| <b>On December 31, 2014</b> | <b>90,090</b>                            | <b>35,778</b> | -              | <b>125,868</b>                         |
| Additions                   | 29,271                                   | 37,376        | 108,379        | 175,026                                |
| Adjustments                 | 4,578                                    | 2,421         | -              | 6,999                                  |
| Reversals or payments       | (57,284)                                 | (5,648)       | -              | (62,932)                               |
| <b>On December 31, 2015</b> | <b>66,655</b>                            | <b>69,927</b> | <b>108,379</b> | <b>244,961</b>                         |
| Additions                   | 65,146                                   | 15,478        | -              | 80,624                                 |
| Adjustments                 | 18,441                                   | 28,666        | 15,934         | 63,041                                 |
| Reversals or payments       | (37,151)                                 | (39,852)      | -              | (77,003)                               |
| <b>On December 31, 2016</b> | <b>113,091</b>                           | <b>74,219</b> | <b>124,313</b> | <b>311,623</b>                         |

Considering the deposits and blockages made during the process and that are still pending, the expected future impact on cash is as follows:

|                           |            | <b>No. of<br/>processes</b> | <b>Value<br/>involved</b> | <b>2016<br/>Provision<br/>(* )</b> | <b>Deposits</b> | <b>Net value</b> |
|---------------------------|------------|-----------------------------|---------------------------|------------------------------------|-----------------|------------------|
| Social security and labor | <b>(a)</b> | 1,763                       | 397,418                   | 113,091                            | (46,698)        | 66,393           |
| Civil                     | <b>(b)</b> | 1,070                       | 487,404                   | 74,219                             | (15,601)        | 58,618           |
| Tax                       | <b>(c)</b> | 189                         | 593,461                   | 124,313                            | (24,004)        | 100,309          |
| Environmental             | <b>(d)</b> | 10                          | 777                       | -                                  | (2,004)         | (2,004)          |
| Others                    | <b>(e)</b> | 5                           | -                         | -                                  | -               | -                |
|                           |            | <b>3,037</b>                | <b>1,479,060</b>          | <b>311,623</b>                     | <b>(88,307)</b> | <b>223,316</b>   |

(\*) This amount does not include the RFFSA contingencies, as the Company is only responsible for paying labor debts arising after privatization, as per the Notice of Privatization, item 7.2.

**(a) Social security and labor**

Most social security and labor claims relate to overtime, indemnities, night premium, intra-day interval, salary equalization, and risk and hazard premium.

In 2016, a total of R\$ 65,146 was accrued. Of this total, R\$ 11,321 refers to seven class actions filed by the unions representing the employee category in Belo Horizonte, Conselheiro Lafaiete, Rio de Janeiro, and São Paulo, which deal with (i) difference in night premium and overtime pay; (ii) validity of monoconduction system; (iii) intra-day interval; (iv) payment of a fine provided for in a collective rule; (v) payment of indemnification; (vi) applicability of TST 331 Precedent.

The other additions to provisions made in the period amount to R\$ 53,825, referring to the change in the prognosis and adjustments to reflect subsequent amending decisions during the period; the highest change per case was R\$ 1,405.

FS-53

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

Reversals of provisions amounted to R\$ 37,151. Of this total, (i) R\$ 32,126 refers to changes in the prognosis, payments and adjustments to reflect subsequent amending decisions during the period as well as monetary restatement; (ii) R\$ 4,025 arises from actual losses in completed processes; and (iii) R\$ 1,000 arises from the payment of an installment of the agreement in execution action of a TAC (Conduct agreement) proposed by the MPT/BH.

In addition, based on the assessment of its legal advisors, the Company has contingencies with a possible loss in the total amount of R\$ 117,474 in 2016, which it is not required to constitute a provision.

**(b) Civil**

Currently, in the civil area, the Company is party to 1,070 lawsuits, where it acts as the defendant in 976 and as author or interested party in 94.

The lawsuits in which the Company acts as a defendant are about civil liability for railway accidents; shutdown of railway traffic in Conselheiro Lafaiete (MG), the legality of charging for third-party interference in the right of way areas for concession and lease agreements, the public civil actions and actions involving the Investment Club of the Southeast Railway Network - SUDFER.

The amount involved in said lawsuits, on December 31, 2016, was R\$409,985 (R\$ 300,274 on December 31, 2015). Following the opinion of its legal advisors, the Company provisioned R\$ 74,103 (R\$ 69,906 in December 2015), referring to the estimated amount of cases with probable loss.

The lawsuits in which the Company is an author/interested party are on contractual liability, collection actions when using the right of way, adverse possession and repossession.

The amount involved in said lawsuits, on December 31, 2016, was R\$77,419 (R\$ 98,897 on December 31, 2015). Following the opinion of its legal advisors, the Company recorded a provision of R\$ 116 (R\$ 2 on December 31, 2015), referring to the estimated amount of cases with probable loss.

The additional provisions in the amount of R\$ 15,478 in the period are mainly due to: (i) changes in the expectations of loss in processes, in the amount of R\$ 8,719, and (ii) additions arising from modifying condemnatory decisions of the amount originally provisioned, issued during the period, in the amount of R\$ 6,759, the highest addition per process was R\$ 2,219. A review of the current calculation of provisioned values was carried out and an amount of R\$ 28,666 was added, in which R\$ 13,944 corresponds to the monetary restatement and R\$ 14,722 corresponds to interest on arrears.

Reversals of provisions were carried out in the period, totaling R\$ 39,852, basically corresponding to: (i) a change in prognosis of loss of processes and adjustments to provision amounts due to the amending decisions issued after constituting the provision of R\$ 18,276 and (ii) payment of executions in the amount of R\$ 21,576, where the amount of R\$ 15,128 is highlighted, referring to the arbitration process instituted by Ebate Construtora LTDA.

The Company is party to other lawsuits for which, based on the assessment of its legal counsel, it has not made provisions since the loss prognosis was classified as only possible. The estimated value of possible loss contingencies is R\$ 338,877 in 2016 and refers mainly to indemnification actions arising from railway accidents.

FS-54

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

The Company has insurance coverage for personal, property and moral injury and damages caused to third parties, whose deductible is currently R\$ 1,000 per claim.

**(c) Tax**

In the tax area, the Company is party to 189 administrative and legal proceedings, authoring 83 proceedings and defendant in 106 proceedings. The total value of these processes, on December 31, 2016, was R\$ 593,461, in which R\$ 277,381 were claimed by the Company and R\$ 316,080 are involved in claims in which the Company is the defendant.

The tax proceedings in progress relate to the questioning of the tax assessments involving (i) disallowance of ICMS credits levied on goods for use and consumption; (ii) IPTU on operating real estate leased from the former RFFSA; (iii) PIS and COFINS on the import of goods (tracks and locomotives), arising from the right to include the Company among the beneficiaries of REPORTO (imports with the suspension of PIS and COFINS); (iv) PIS and COFINS on sharing of freight payable (third parties' revenue included in the Company's billing) and (v) excluding values from the calculation basis of PIS and COFINS.

The composition of tax provisions with probable loss prognosis, in the total amount of R\$ 124,313 (R\$ 108,379 in 2015), is as follows:

- ICMS - State of Rio de Janeiro: the amount of R\$ 70,200 (R\$ 61,471 in 2015), refers to the reduction of ICMS credits from the acquisition of goods classified by the State as use and consumption, pending judgment.

- ICMS - State of São Paulo: the amount of R\$ 47,068 (R\$ 40,800 in 2015), refers to the reduction of ICMS credits from the acquisition of goods classified by the State as use and consumption, pending judgment.
- Writ of Mandamus relating to the classification of REPORTO benefits: the amount of R\$ 7,045 (R\$ 6,108 in 2015), refers to the recognition of the application of REPORTO benefits to the importing of locomotives, also pending judgment.

The Company is party to other lawsuits in which, based on the assessment of its legal counsel, it has made no provisions since the loss expectations were considered as only possible. The amount of R\$ 117,184 in 2016 (R\$ 105,476 in 2015) referring to the contingency, is composed as follows:

- ICMS - disallowance of using the assumed system for ICMS calculation in scrap sales: R\$107 in 2016 (R\$566 in 2015) refers to notices issued by the Minas Gerais' Tax Administration based on disagreement with the assumed credit system granted to the Company for the payment of ICMS taxes resulting from scrap sales, pending judgment.
- IPTU on property leased from the extinguished Rede Ferroviária Federal S.A.: R\$ 27,472 in 2016 (R\$ 20,470 in 2015) refers to administrative and legal proceedings related to the collection of IPTU on operating leased property from the extinguished RFFSA. Such demands are pending judgment by the STF of an extraordinary appeal with recognition of general repercussion.
- PIS and COFINS on freight sharing: R\$ 13,164 in 2016 (R\$ 12,276 in 2015), refers to the difference in the payment of PIS and COFINS taxes due to the exclusion of amounts transferred to third parties for mutual traffic from its calculation basis, pending judgment.
- PIS and COFINS exchange variation: R\$ 29,798 in 2016 (R\$ 28,352 in 2015), refers to the exclusion of values arising from exchange variation from the PIS and COFINS calculation basis. Suit is pending appeal to the judgment that was in favor of the Company to the exclusion of amounts from the COFINS calculation basis. PIS is expected to be reviewed.

FS-55

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

- Tax Execution - PIS and COFINS: R\$ 7,398 in 2016 (R\$ 11,142 in 2015), refers to the judicial collection of PIS and COFINS debts subject of Outstanding Debt Certificates arising from administrative proceedings. The decision is still likely to change by means of an appeal.
- Tax Execution - PIS, COFINS, IRPJ, CSLL and IRRF: R\$21,777 in 2016 (R\$20,930 in 2015) related to Tax execution against the Company, for 5 Outstanding Debt Certificates for PIS, COFINS, IRPJ, CSLL and IRRF. Sentence in the Company's favor was handed down. Awaits the appeal judgment.
- Writ of Mandamus PIS/COFINS: Related to writs of mandamus filed in the States of MG/RJ/SP for calculation of amounts due for import PIS/COFINS without incidence of ICMS on customs clearance. Lawsuit awaits final judgment of cases before the courts.
- Non-conformity Statement - CSLL: R\$696 in 2016 (R\$468 in 2015). Federal Revenue Service of Brazil has only partially ratified the request for credits compensation arising from overpayment of CSLL. The Company filed a Non-conformity statement which is pending judgment.
- Administrative fine for lack of construction license - City Hall of Barra Mansa: R\$16,772 in 2016 (R\$11,272 in 2015), relating to administrative fines applied for performance of works on the railway, in the City of Barra Mansa, without previous license. Judgment, which partially recognized incorrectness of fines applied was handed down, awaiting final judgment.

**(d) Environmental**

The Company is party to 10 lawsuits of environmental nature. On December 31, 2016, the total amount involved in these judicial lawsuits was R\$777. The loss prognosis of all lawsuits is considered 'possible' by legal advisors, therefore has not been provisioned.

**(e) Others**



The Company has 5 Conduct Agreements (TAC) in force, 2 due to labor issues, 2 of civil proceedings and 1 environmental issue. TACs of labor matters aim to (i) guarantee union leaders to full exercise of activities intended to defend collective or individual rights and interests of the occupational category; and (ii) achieve the percentage of employees with disabilities required by art. 93, law 8,213/91. In the civil area, there are two TACs: one about the construction of walkways and flyovers on the railway, in the city of Congonhas/MG, and another TAC about the reform of São José dos Campos station. The environment-related TAC covers planting and maintenance of seedlings of trees native to the Atlantic forest in Juiz de Fora/MG. For such cases, no provisions have been made.

FS-56

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****23.2 Provision for post-employment benefits**

|                             | <b>2016</b>  | <b>2015</b>  |
|-----------------------------|--------------|--------------|
| Supplementary pension plans | 50           | 66           |
| Medical care plan           | 3,566        | 3,254        |
|                             | <b>3,616</b> | <b>3,320</b> |

Supplementary pension plans

The Company sponsors a supplementary pension plan for employees through a pension plan managed by Bradesco Vida e Previdência. The pension plan, created on July 1, 1999, is available to all employees of MRS from the date of the plan initiation. The plan is a defined contribution plan, and the Company has no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all benefits owed. The cost is shared so that the portion of the Company amounts to 100% of that the employee's contribution according to a contribution scale based on salary band.

The plan requires contributions to be made to funds managed separately from the Company's own funds. The plan assets are held by an open supplementary pension fund, not available to the Company's creditors and cannot be paid directly to the Company.

The Company's contributions total R\$6,986 in the year ended December 31, 2016 (R\$7,380 in 2015 and R\$13,949 in 2014), which were included in current expenses.

On December 31, 2016, there were liabilities of the Company arising from the pension plan in the amount of R\$ 50 (R\$ 66 in 2015), which were duly accrued and are recorded in non-current liabilities.

#### Medical care plan

The Company has a plan for post-employment medical care for a group of former employees and their spouses administered by Bradesco Saúde. The plan has a policy of partial participation of each employee (fixed monthly contribution) through a post-payment model. Due to the adoption of this policy, the extent of this benefit is guaranteed for employees and their family group after termination of employment and retirement (post-employment period) in accordance with articles 30 and 31 of Law 9,656/98, respectively, and Normative Resolution RN 279 of November 24, 2011.

The Company also offers a post-payment plan managed by Unimed Juiz de Fora. However, there are no retired or terminated users during the post-employment period and the expected adhesion of future retired employees is zero.

On December 31, 2016, the plan had 16,295 individuals in Bradesco Saúde and 612 in Unimed Juiz de Fora, amounting to 16,907 lives.

Actuarial gains and losses are recognized in equity as "Carrying value adjustment" within the statement of comprehensive income, as required by IAS 19 - Employee Benefits (2011).

The Company's contributions to the medical care plans managed by Bradesco Saúde and Unimed were R\$33,508 in the year ended December 31, 2016 (R\$28,231 in 2015 and R\$27,086 in 2014).

FS-57

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

On December 31, 2016, there were actuarial liabilities of the Company arising from the health plan in the amount of R\$ 3,566 (R\$ 3,254 in 2015), which were duly provided in non-current liabilities.

a. Reconciliation of net actuarial liabilities in the balance sheet:

|  | <b>2016</b>  | <b>2015</b>  |
|--|--------------|--------------|
| Net actuarial liabilities on January 1 | 3,254        | 3,370        |
| Expense in the year                    | 281          | 348          |
| Adjustments to obligations             | 31           | (464)        |
| Actuarial liabilities on December 31   | <b>3,566</b> | <b>3,254</b> |

b. Actuarial liabilities:

|  | <b>2016</b>  | <b>2015</b>  |
|--|--------------|--------------|
| Actuarial liabilities at the beginning of the year                       | 3,254        | 3,370        |
| Current service cost   | 199          | 259          |
| Interest on actuarial liabilities  | 411          | 374          |
| Benefits paid directly by the plan                                       | (329)        | (285)        |
| Adjustments - cost remeasurements included in other comprehensive income | 31           | (464)        |
| Actuarial liabilities on December 31                                     | <b>3,566</b> | <b>3,254</b> |

c. Expenses to be recognized in the income statement of the coming year:

|                                   | <b>2017</b> |
|-----------------------------------|-------------|
| Current service cost              | 132         |
| Interest on actuarial liabilities | 396         |

23.2 Provision for post-employment benefits

636

Total expenses to be recognized

528

d. Assumptions adopted by the independent actuary in the actuarial liability calculations:

|                                |                              |
|--------------------------------|------------------------------|
| Discount rate                  | 5.72% p.a.                   |
| Long-term inflation rate       | 5.50% p.a.                   |
| Medical cost inflation (HCCTR) | 3.0% p.a.                    |
| Age factor                     | From 0 to 24 y/o: 0.5% p.a.  |
|                                | From 25 to 54 y/o: 2% p.a.   |
|                                | From 55 to 79 y/o: 4.5% p.a. |
|                                | More than 80 y/o: 3% p.a.    |
| Overall mortality table        | AT-2000                      |

Life insurance

Employees participate in a collective life insurance guaranteed by Itaú Seguros. In 2016, the Company contributed R\$814 (R\$658 in 2015 and R\$ 529 in 2014) for its employees' life insurance policies.

FS-58

**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****24. Equity****(a) *Subscribed and paid-up capital***

The subscribed and paid-up capital, amounting to R\$ 1,487,756 (R\$ 1,392,974 in 2015 and R\$ 1,275,588 in 2014), is divided into 340,000,000 shares with no par value, represented by common and preferred class "A" and "B" shares.

According to the Company's Bylaws, the authorized capital is R\$ 2,500,000.

Based on the Notice of Privatization and the Bylaws of MRS, no shareholder may hold an equity interest greater than 20% of the voting capital. If this limit is exceeded, as determined by ANTT, shareholders waive the right to vote and veto inherent to the shares that exceed this limit.

The Board of Directors' Meeting held on March 28, 2016 approved an increase in capital of R\$94,782 using part of investment reserves constituted in previous years.

On December 31, 2016, participation in the Company's share capital was as follows:

| Shareholders                         | Common shares |        | Preferred shares |        | Total capital |        |
|--------------------------------------|---------------|--------|------------------|--------|---------------|--------|
|                                      | No. of shares | %      | No. of shares    | %      | No. of shares | %      |
| Minerações Brasileiras Reunidas S.A. | 37,666,526    | 20.00% | 74,301,916       | 48.99% | 111,968,442   | 32.93% |
|                                      | 26,611,282    | 14.13% | 36,765,916       | 24.24% | 63,377,198    | 18.64% |

**24. Equity****638**

|   |                    |             |                    |             |                    |             |
|---|--------------------|-------------|--------------------|-------------|--------------------|-------------|
| Companhia Siderúrgica Nacional          |                    |             |                    |             |                    |             |
| CSN Mineração S.A. (*)                  | 25,802,872         | 13.70%      | 37,536,000         | 24.75%      | 63,338,872         | 18.63%      |
| Usiminas Participações e Logística S.A. | 37,513,650         | 19.92%      | 342,805            | 0.23%       | 37,856,455         | 11.13%      |
| Vale S.A.                               | 36,270,703         | 19.26%      | 769,304            | 0.51%       | 37,040,007         | 10.89%      |
| Gerdau S.A.                             | 4,460,128          | 2.37%       | -                  | 0.00%       | 4,460,128          | 1.31%       |
| Minority shareholders                   | 20,007,526         | 10.62%      | 1,951,372          | 1.29%       | 21,958,898         | 6.46%       |
|   | <b>188,332,687</b> | <b>100%</b> | <b>151,667,313</b> | <b>100%</b> | <b>340,000,000</b> | <b>100%</b> |

(\*) On June 30, 2016, the shares of Nacional Minérios S.A. were transferred to Congonhas Minérios S.A. due to merger carried out on December 31, 2015, in accordance with material fact communicated to the Company's market. Additionally, on November 30, 2016, according to the Extraordinary General Meeting minutes, Congonhas Minérios S.A. changed its corporate name to CSN Mineração S.A.

**(b) Shareholders' rights**

Holders of common shares have the right to vote in the resolutions of general meetings. The preferred shareholders (classes A and B) have the right to dividends 10% higher than those assigned to common shares, have no right to vote but priority in receiving reimbursement of capital, without premium, upon winding-up of the Company.

The Class B preferred shares are, at the initiative of the shareholder that holds them, convertible into common shares at a ratio of one for each common share. Such conversion may be made at any time, subject to the conditions provided for in the Bylaws.

Although not entitled to vote, the Class B preferred shares have the right to elect, in a separate vote, a member of the Board of Directors as long as they represent a minimum of 25% of total capital.

FS-59

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

**(c) *Revenue reserves - legal reserve***

Recorded at 5% of the net income before profit distributions and reversal of interest on shareholders' equity, as required by the legislation, and limited to 20% of the share capital. On December 31, 2016, the legal reserve balance was R\$246,222 (R\$225,345 in 2015 and R\$ 210,555 in 2014).

**(d) *Revenue reserves - investment reserve***

Management proposed retaining the remaining profit after appropriations for expansion in the amount of R\$198,334, aiming to supply the required resources for fulfilling the Company's capital investment budget. On December 31, 2016, the investment reserve balance was R\$1,351,139 (R\$1,262,411 in 2015 and R\$ 1,182,419 in 2014).

**(e) **Proposed additional dividend****

The applicable accounting standards require that the portion of dividends that exceeds the mandatory minimum dividend, proposed by management after the year-end but before the date of authorization to issue the financial statements, shall not be recorded as a liability, and the effects of the additional dividends should be disclosed in a note. Hence, on December 31, 2016, the R\$99,167 referred to the amount exceeding the mandatory minimum dividend was recorded in the equity as "Proposed additional dividend".

**(f) *Carrying value adjustments***



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The carrying value adjustment relates to actuarial remeasurements of health insurance determined in accordance with IAS 19 –Employee Benefits (2011).

|                             | <b>Actuarial<br/>adjustments</b> | <b>IRPJ/CSLL</b> | <b>Total</b> |
|-----------------------------|----------------------------------|------------------|--------------|
| <b>On December 31, 2013</b> | <b>9,514</b>                     | <b>(3,235)</b>   | <b>6,279</b> |
| Addition                    | 2,318                            | (788)            | 1,530        |
| <b>On December 31, 2014</b> | <b>11,832</b>                    | <b>(4,023)</b>   | <b>7,809</b> |
| Addition                    | 464                              | -                | 464          |
| Reduction                   | -                                | 339              | 339          |
| <b>On December 31, 2015</b> | <b>12,296</b>                    | <b>(3,684)</b>   | <b>8,612</b> |
| Reduction                   | (31)                             | 337              | 306          |
| <b>On December 31, 2016</b> | <b>12,265</b>                    | <b>(3,347)</b>   | <b>8,918</b> |

FS-60

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****25. Earnings per share**

The following table sets forth the calculation of earnings per share for the years ended December 31, 2016, 2015, and 2014 (in thousands of Reais, except per share amounts):

|  | <b>2016</b> | <b>2015</b> | <b>2014</b> |
|--|-------------|-------------|-------------|
| Numerator  |             |             |             |
| Net profit for the year                            | 417,545     | 295,798     | 378,761     |
| Denominator  |             |             |             |
| Common shares weighted average                     | 188,333     | 188,333     | 188,333     |
| Preferred shares weighted average - A              | 82,076      | 82,076      | 82,076      |
| Preferred shares weighted average - B              | 69,591      | 69,591      | 69,591      |
| 10% - Preferred shares                             | 1.1         | 1.1         | 1.1         |
| Adjusted preferred shares weighted average         | 166,834     | 166,834     | 166,834     |
| Denominator for basic earnings per share           | 355,167     | 355,167     | 355,167     |
| Basic earnings per common share                    | 1.18        | 0.83        | 1.07        |
| 10% - Preferred shares                             | 1.1         | 1.1         | 1.1         |
| Basic and diluted earnings per preferred share - A | 1.29        | 0.92        | 1.17        |
| Basic and diluted earnings per preferred share - B | 1.29        | 0.92        | 1.17        |

FS-61

**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****26. Service revenue**

|                                    | <b>2016</b>      | <b>2015</b>      | <b>2014</b>      |
|------------------------------------|------------------|------------------|------------------|
| <u>Gross operating revenue</u>     |                  |                  |                  |
| Shipping services                  | 2,763,753        | 2,629,849        | 2,479,125        |
| Freight sharing                    | 113,383          | 106,456          | 95,836           |
| Additional transportation revenues | 758,579          | 766,301          | 805,874          |
|                                    | <b>3,635,715</b> | <b>3,502,606</b> | <b>3,380,835</b> |
| <u>(-) Deductions from sales</u>   |                  |                  |                  |
| ICMS                               | (117,520)        | (115,165)        | (113,234)        |
| COFINS                             | (151,240)        | (145,700)        | (139,940)        |
| PIS                                | (32,835)         | (31,632)         | (30,381)         |
| Social Security (*)                | (54,653)         | (37,034)         | (34,009)         |
| ISS                                | (47)             | (331)            | (210)            |
|                                    | <b>(356,295)</b> | <b>(329,862)</b> | <b>(317,774)</b> |
| <b>Net Revenue</b>                 | <b>3,279,420</b> | <b>3,172,744</b> | <b>3,063,061</b> |

(\*) Law 13,161/15 - Changes in rates levied for payroll relief - a special issue of the Official Gazette of 08/31/2015, published on 09/01/2015, printed Law 13,161/15, which, among other provisions, implemented changes to the payroll relief law (CPRB - Social Security Contribution on Gross Revenue). After December 1, 2015, the Social Security Contribution rate calculated on Gross Revenue changed from 1.0% to 1.5%.

FS-62

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****27. Expenses by nature**

|   | <b>2016</b>           | <b>2015</b>        | <b>2014</b>        |
|---|-----------------------|--------------------|--------------------|
| Fuel/Lubricants   | (537,081)             | (533,027)          | (511,426)          |
| Depreciation/amortization                                     | (559,765)             | (515,408)          | (447,457)          |
| Labor and social charges                                      | (382,917)             | (387,122)          | (361,525)          |
| Concession/lease cost   | (299,209)             | (272,950)          | (255,690)          |
| Outsourced services   | (218,619)             | (186,874)          | (189,308)          |
| Inputs/other materials  | (144,104)             | (136,774)          | (166,847)          |
| Employee benefits   | (103,901)             | (94,191)           | (98,646)           |
| Presumed ICMS MG credit                                       | 65,300                | 73,359             | 75,418             |
| Other personnel expenses                                      | (60,404)              | (64,033)           | (73,106)           |
| Freight sharing   | (79,289)              | (68,330)           | (62,639)           |
| (Provision) Reversal of estimated losses on doubtful accounts | <b>7 and 9</b> 49,085 | -                  | (51,793)           |
| Additional transportation costs                               | (31,194)              | (31,886)           | (26,773)           |
| Operational vehicles and equipment rent                       | (13,087)              | (15,991)           | (17,934)           |
| Insurance expenses  | (11,471)              | (11,910)           | (8,555)            |
| Management fees   | (3,529)               | (3,617)            | (3,700)            |
| Others  | (55,247)              | (63,129)           | (88,897)           |
|   | <b>(2,385,432)</b>    | <b>(2,311,883)</b> | <b>(2,288,878)</b> |
| Costs of services rendered                                    | (2,208,786)           | (2,095,614)        | (2,014,374)        |
| Selling (*)   | 37,977                | (10,322)           | (61,971)           |
| General and administrative                                    | (214,623)             | (205,947)          | (212,533)          |
|   | <b>(2,385,432)</b>    | <b>(2,311,883)</b> | <b>(2,288,878)</b> |

(\*) The 2016 positive balance refers to reversal of the provision for impairment constituted in 2014 as described in Note 7. (b) in the amount of R\$51,793, exceeding expenses with current sales in the year, which were R\$13,816.

FS-63

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****28. Other operating income and expenses**

|  |                | <b>2016</b>    | <b>2015</b>    | <b>2014</b>    |
|--|----------------|----------------|----------------|----------------|
| <u>Other operating income</u>                        |                |                |                |                |
| Incremental revenues                                 | <b>(a)</b>     | 40,224         | 40,345         | 39,046         |
| Sales of material (scrap/excess inventory)           |                | 20,733         | 24,598         | 38,258         |
| Contract penalties                                   | <b>8. (a)</b>  | 196,212        | 61,847         | 77,494         |
| Insurance  |                | 1,220          | 318            | 20,204         |
| Services provided to third-parties                   |                | 2,602          | 5,007          | 5,782          |
| Revenue from sales of fixed assets                   | <b>8. (f)</b>  | 29,537         | 53             | 450            |
| Reversal of provision for loss on movable assets     |                | -              | 2,320          | 15,252         |
| Reversal of provision for loss on immovable assets   |                | -              | 443            | 13,764         |
| Reversal of provision for donation of assets         | <b>14</b>      | 12,852         | -              | -              |
| Reimbursement of accident expenses                   |                | -              | 9,407          | -              |
| Other income   |                | 4,246          | 6,578          | 5,178          |
|  |                | <b>307,626</b> | <b>150,916</b> | <b>215,428</b> |
| <u>Other operating expenses</u>                      |                |                |                |                |
| Provision for loss on ICMS credits                   | <b>(b)</b>     | (4,066)        | (21,460)       | -              |
| Provision for loss on current assets                 | <b>10. (c)</b> | (1,056)        | -              | (8,275)        |
| Provision for loss on immovable assets               |                | (5,424)        | (440)          | -              |
| Provision for donation of assets                     |                | -              | (16,875)       | -              |
| Provision for contingencies                          | <b>23.1</b>    | (22,384)       | (118,330)      | (15,003)       |
| Other provisions                                     |                | 1,766          | 1,991          | (8,631)        |
| Tax loss expenses                                    |                | (46,347)       | (39,425)       | (55,893)       |
| Taxes on sales and other revenues                    |                | (27,305)       | (14,764)       | (17,724)       |
| Other tax expenses                                   |                | (13,402)       | (15,408)       | (31,352)       |
| Loss on litigation                                   |                | (54,579)       | (22,094)       | (15,590)       |
| Incremental revenues cost                            |                | (5,318)        | (6,485)        | (6,485)        |
| Agreements with Municipalities                       |                | (6,068)        | (5,431)        | (8,239)        |
| Cost of sales of material (scrap/excess inventories) |                | (3,572)        | (753)          | (9,033)        |
| Cost of third party services                         |                | (838)          | (3,009)        | (6,943)        |
| Donations  | <b>14</b>      | (12,866)       | (1,036)        | (1,712)        |
| Fixed asset write-off                                | <b>14</b>      | (21,265)       | (8,135)        | (15,961)       |
| Inventory adjustment/write-off                       |                | (8,034)        | 486            | (5,788)        |
| Sponsorship expenses (Rouanet Law/FIA/Sports)        |                | (6,962)        | (3,055)        | (3,540)        |

**28. Other operating income and expenses****647**

|  |     |                  |                  |                  |
|--|-----|------------------|------------------|------------------|
| Citizen project                              |     | (3,289)          | (2,174)          | (813)            |
| Compensation to Granting Authority           |     | (2,213)          | (18,016)         | (872)            |
| Bad debts                                    | (c) | (42,530)         | -                | -                |
| Other expenses                               |     | (5,415)          | (16,636)         | (11,806)         |
|  |     | <b>(291,167)</b> | <b>(311,049)</b> | <b>(223,660)</b> |
| <b>Other net operating income (expenses)</b> |     | <b>16,459</b>    | <b>(160,133)</b> | <b>(8,232)</b>   |

(a) Incremental revenues: according to ANTT, as provided for in the Accounting Manual for Public Transport Service, revenues from projects related to the public service concession and not included in exploration of rail transport are classified as incremental revenues.

(b) The amount of R\$4,065 relates to increase in provision for loss on ICMS credits (see Note 11).

(c) Of the amount of R\$42,530, R\$42,409 are from write-offs of bad debt accounts resulting from agreement made in the judicial recovery process described in Note 7.(b).



**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated****29. Financial income and expenses**

|   | <b>2016</b>      | <b>2015</b>      | <b>2014</b>      |
|---|------------------|------------------|------------------|
| <u>Financial income</u>                         |                  |                  |                  |
| Exchange and monetary variation                 | 241,121          | 109,940          | 75,413           |
| Derivative financial instruments - swap         | -                | 260,006          | 89,236           |
| Mark-to-market adjustment - hedge accounting    | 721              | -                | -                |
| Income on financial investments                 | 62,347           | 84,172           | 40,462           |
| Interest  | 5,822            | 5,697            | 9,122            |
| Present value adjustment of accounts receivable | 23,221           | -                | -                |
| Other financial revenues                        | 9,967            | 1,816            | 3,422            |
|   | <b>343,199</b>   | <b>461,631</b>   | <b>217,655</b>   |
| <u>Financial expenses</u>                       |                  |                  |                  |
| Exchange and monetary variation                 | (184,672)        | (390,007)        | (151,518)        |
| Interest  | (223,791)        | (240,179)        | (186,618)        |
| Derivative financial instruments - swap         | (143,768)        | (71,396)         | (61,535)         |
| Other financial expenses                        | (40,268)         | (9,039)          | (8,278)          |
|   | <b>(592,499)</b> | <b>(710,621)</b> | <b>(407,949)</b> |
| Net financial result                            | <b>(249,300)</b> | <b>(248,990)</b> | <b>(190,294)</b> |

**30. Information by segment**

Since that only cargo transportation services are offered in the Southeastern network, for accounting and management purposes, the Company is organized into a single business unit. The Company's operations are controlled, managed,

and monitored by management as a whole.

The Company has a certain degree of reliance on its major customers, mainly comprised of shareholders. The revenue per customer is as follows:

FS-65

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**MRS Logística S.A.****Notes to the financial statements****at December 31, 2016****In thousands of reais, unless otherwise stated**

| <b>Main Customers</b>                    | <b>2016</b>      | <b>2015</b>      | <b>2014</b>      |
|--|------------------|------------------|------------------|
| Vale S.A.                                | 1,682,315        | 1,607,675        | 1,479,022        |
| Companhia Siderúrgica Nacional           | 243,070          | 673,489          | 660,754          |
| Mineração Usiminas S.A.                  | 16,971           | 104,031          | 178,384          |
| CSN Mineração S.A.                       | 639,063          | 39,174           | -                |
| Usinas Siderúrgicas de Minas Gerais S.A. | 114,231          | 117,858          | 98,920           |
| Gerdau Açominas S.A.                     | 106,635          | 81,203           | 85,285           |
| Nacional Minérios S.A.                   | -                | 98,814           | 171,371          |
| Ferrovias Centro Atlântica               | 36,763           | 31,725           | 21,792           |
| Gerdau Aços Longos S.A.                  | 8,247            | 18,194           | 19,384           |
| CSN Cimentos S.A.                        | -                | 10,639           | 9,625            |
| Gerdau S.A.                              | 1,230            | 4,065            | 6,766            |
| VLI Multimodal                           | 772              | 1,543            | 1,160            |
| Confab Industrial S.A.                   | 110              | 679              | 213              |
| Companhia Metalúrgica Prada              | 15               | 247              | 259              |
| Others                                   | 786,293          | 713,270          | 647,900          |
|  | <b>3,635,715</b> | <b>3,502,606</b> | <b>3,380,835</b> |

The Company does not provide services to foreign customers since its operating area is limited to the Brazilian Southeastern network, as defined in the concession agreement.

**31. Insurance**

The Company has the following insurance policies:

| <b>Coverage</b>  | <b>Purpose</b>   | <b>Expiration Date</b> | <b>Maximum Coverage</b> | <b>Deductibles</b> |
|------------------|--|------------------------|-------------------------|--------------------|
| Operational Risk | Coverage of the Company's operational property or a property under its responsibility. | March 31, 2018         | 203,378                 | 9,000              |
| Liability        | Coverage against damages caused to third-parties                                       | February 9, 2017       | 30,000                  | 1,000              |
| Cargo Transport  | Coverage of occurrences on transporting cargo  | July 31, 2017          | 45,000                  | 200                |

Notes:

The Company has as a policy obtaining insurance coverage for assets subject to risks and civil liability for amounts considered as sufficient to cover any possible losses, considering the nature of the activity. The risk assumptions adopted, given their nature, are not part of the scope of the audit of the financial statements and, therefore, they were not reviewed by the independent auditors.

FS-66

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

**32. Subsequent events**

**Board of Directors' Meeting**

In accordance with Law 6,404/76 (Corporate Law), item 199, the balance of revenue reserves, other than for contingencies, of tax incentives and unrealized profits should not exceed the capital. The Company has reached this limit on December 31, 2016, and the Board of Directors' Meeting held on March 8, 2017, approved an increase in capital in the amount of R\$109,606 using part of investment reserves constituted in previous years.

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FS-67

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**MRS Logística S.A.**

**Notes to the financial statements**

**at December 31, 2016**

**In thousands of reais, unless otherwise stated**

**Management: Directors and Officers**

**Board of Directors**

Humberto Ramos de Freitas  
Chairman

Alejandro Daniel Laiño  
Daniel dos Santos Junior  
Fabio Costa Brasileiro da Silva  
Fernando Pessanha Santos  
Guilherme Delgado de Oliveira  
Luis Fernando Barbosa Martinez  
Patrícia Silva Rodrigues Schell  
Rosana Passos de Pádua  
Wilfred Theodoor Bruijn

**Executive Board**

Guilherme Segalla de Mello  
CEO, Sales and operations director

Alexandre Claro Fleischhauer  
Engineering and maintenance director

Félix Lopez Cid  
Human resources director

Fabília Gomes de Souza  
Financial and development director

**Other Directors not part of the Executive Board**

Daniel Dias Olivio  
Henrique Rocha Martins  
Luiz Gustavo Bambini de Assis

FS-68

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Deloitte Touche Tohmatsu

Nacional Minérios S.A.

*Financial Statements*

*For the Eleven Month-Period Ended  
November 30, 2015 and*

*Independent Auditor's Report*

Deloitte Touche Tohmatsu Auditores Independentes

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INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Shareholders of

Nacional Minérios S.A.

São Paulo - SP - Brazil

We have audited the accompanying consolidated financial statements of Nacional Minérios S.A. and its subsidiaries (the "Company"), which comprise the consolidated balance sheets as of November 30, 2015, and the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for the eleven-month period ended November 30, 2015 and for the year ended December 31, 2014, and a summary of significant accounting policies and other explanatory information.

**Management's responsibility for the consolidated financial statements**

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' responsibility**

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by Management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

FS-R1

### **Opinion**

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Nacional Minérios S.A. and its subsidiaries as of November 30, 2015, and the results of their operations and their cash flows for the eleven-month period ended November 30, 2015 and for the year ended December 31, 2014, in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

### **Emphasis of matter**

- a) As described on note 1 to the financial statements, these financial statements are being prepared to be included at the 20-F filing of CSN and are presented for the period through the date that CSN had an equity interest in Namisa.
- b) As described on note 8 to the financial statements, the Company has significant transactions with related parties. Our opinion was not qualified regarding this subject.

/s/ Deloitte Touche Tohmatsu Auditores Independentes

DELOITTE TOUCHE TOHMATSU AUDITORES INDEPENDENTES São Paulo – SP, Brazil May 11, 2016

FS-R2

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NACIONAL MINÉRIOS S.A.

CONSOLIDATED BALANCE SHEETS AS OF NOVEMBER 30, 2015 AND DECEMBER 31, 2014  
(In thousands of Brazilian reais - R\$)

| <u>ASSETS</u>                 |       |            |            | <u>LIABILITIES AND SHAREHOLDERS' EQUITY</u> |              |                  |         |
|-------------------------------|-------|------------|------------|---|--------------|------------------|---------|
|                               | Note  | 2015       | 2014       |   | Note         | 2015             | 2014    |
| <b>CURRENT ASSETS</b>         |       |            |            | <b>CURRENT LIABILITIES</b>                  |              |                  |         |
| Cash and cash equivalents     | 4     | 533,770    | 5,499,139  | Loans and financing                         | 13           | 4,680            | 368,818 |
| Trade receivables             | 5 / 8 | 721,059    | 126,726    | Trade payables to third parties             |              | 20,735           | 37,901  |
| Inventories                   | 6     | 64,293     | 77,451     | Trade payables to related parties           | 8            | 552,483          | 13,872  |
| Advances to suppliers         | 8     | 115,693    | 250,469    | Payroll and related taxes                   |              | 14,838           | 12,662  |
| Recoverable taxes             | 7     | 35,578     | 21,077     | Income taxes and other tax payable          |              | 321,275          | 160,576 |
| Loans and receivables         | 8     | 162,544    | 61,026     | Dividends                                   | 8 / 16a (vi) | 1,156,800        | 55,764  |
| Other assets                  |       | 3,363      | 22,775     | Other payables to related parties           | 8            | 176,952          | 74,720  |
| Total current assets          |       | 1,636,300  | 6,058,663  | Other payables                              |              | 92,763           | 73,849  |
|                               |       |            |            | Total current liabilities                   |              | <u>2,340,526</u> | 798,162 |
| <b>NONCURRENT ASSETS</b>      |       |            |            | <b>NONCURRENT LIABILITIES</b>               |              |                  |         |
| Advances to suppliers         | 8     | 9,310,901  | 9,236,170  | Loans and financing                         | 13           | 25,307           | 29,541  |
| Recoverable taxes             | 7     | 130,200    | 123,678    | Provision for risks                         | 14           | 7,486            | 1,126   |
| Other assets                  |       | 7,380      | 5,826      | Tax payable                                 | 22           | 75,665           | 73,828  |
| Investments                   | 10    | 171,760    | 171,760    | Deferred taxes                              | 9 c          | 140,118          | 151,874 |
| Property, plant and equipment | 11    | 511,577    | 563,709    | Other payables                              |              | 8,970            | 16,402  |
| Intangible assets             | 12    | 581,968    | 583,110    | Total noncurrent liabilities                |              | 257,546          | 272,771 |
| Total noncurrent assets       |       | 10,713,786 | 10,684,253 |   |              |                  |         |

SHAREHOLDERS'  
EQUITY

|                            |     |           |            |
|----------------------------|-----|-----------|------------|
| Issued capital             | 16a | 1,961,510 | 2,800,000  |
| Capital reserves           | 16b | 6,473,699 | 6,473,699  |
| Earnings reserves          | 16f | 1,155,168 | 6,236,647  |
| Other comprehensive income |     | 161,637   | 161,637    |
| Total equity               |     | 9,752,014 | 15,671,983 |

TOTAL ASSETS

12,350,086 16,742,916

TOTAL LIABILITIES AND  
SHAREHOLDERS' EQUITY

12,350,086 16,742,916

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

FS-1

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NACIONAL MINÉRIOS S.A.

## INCOME STATEMENTS

FOR THE ELEVEN MONTH-PERIOD ENDED NOVEMBER 30, 2015, AND FOR THE YEAR ENDED  
DECEMBER 31, 2014

(In thousands of Brazilian reais - R\$, except earnings per thousand shares)

|  | Note | 2015      | 2014      |
|--|------|-----------|-----------|
| NET OPERATING REVENUE  | 18   | 751,595   | 1,475,058 |
| COST OF GOODS SOLD   | 19   | (479,861) | (995,192) |
| GROSS PROFIT   |      | 271,734   | 479,866   |
| OPERATING EXPENSES   |      |           |           |
| Selling expenses   | 19   | (152,813) | (433,424) |
| General and administrative expenses                          | 19   | (34,180)  | (54,029)  |
| Other expenses, net  | 19   | (25,553)  | (27,911)  |
|  |      | (212,546) | (515,364) |
| OPERATING PROFIT (LOSS) BEFORE<br>FINANCIAL INCOME (EXPENSE) |      | 59,188    | (35,498)  |
| FINANCIAL INCOME (EXPENSE)                                   |      |           |           |
| Financial income, net  | 20   | 9,669     | 1,115,587 |
| Exchange rate and monetary variances, net                    | 20   | 1,824,955 | 536,304   |
|  |      | 1,834,624 | 1,651,891 |
| PROFIT BEFORE INCOME TAX AND<br>SOCIAL CONTRIBUTION          |      | 1,893,812 | 1,616,393 |
| INCOME TAX AND SOCIAL<br>CONTRIBUTION                        |      |           |           |
| Current  | 9 a  | (162,062) | (359,070) |
| Deferred   | 9 a  | 13,098    | (153,843) |
| NET PROFIT FOR THE PERIOD / YEAR                             |      | 1,744,848 | 1,103,480 |
| BASIC AND DILUTED EARNINGS<br>PER THOUSAND SHARES - R\$      |      |           |           |
| Ordinary   | 17   | 2.9864    | 2.3228    |
| Preferred  | 17   | 3.1503    | -         |

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

FS-2

NACIONAL MINÉRIOS S.A.

STATEMENTS OF COMPREHENSIVE INCOME  
FOR THE ELEVEN MONTH-PERIOD ENDED NOVEMBER 30, 2015, AND FOR THE YEAR ENDED  
DECEMBER 31, 2014

(In thousands of Brazilian reais - R\$)

|   | 2015      | 2014      |
|---|-----------|-----------|
| NET PROFIT FOR THE PERIOD / YEAR  | 1,744,848 | 1,103,480 |
| Other comprehensive income:   |           |           |
| Items that will not be reclassified subsequently to the<br>income statement | -         | -         |
| TOTAL COMPREHENSIVE INCOME FOR THE<br>PERIOD / YEAR                         | 1,744,848 | 1,103,480 |

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

FS-3

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|  |          |           |           |           |           |             |             |           |
|--|----------|-----------|-----------|-----------|-----------|-------------|-------------|-----------|
| Dividends according to<br>ESM Nov 30, 2015 (R\$ 12.5822 per share)                             | 16 d/e/f |           |           |           |           | (5,977,397) | (5,977,397) | -         |
| <b>Allocations:</b>  |          |           |           |           |           |             |             | -         |
| Earnings reserves  | 16 d/e/f | -         | -         | -         | 895,918   |             | (895,918)   | -         |
| Interim dividends according to<br>ESM Nov 30, 2015 (R\$ 1.0989 per share)                      | 16 d/e/f |           |           |           |           |             | (522,039)   | (522,039) |
| Interim dividends for preferred shares according to<br>ESM Nov 30, 2015 (R\$ 3,1503 per share) | 16 d/e/f |           |           |           |           |             | (326,891)   | (326,891) |
| <b>BALANCES AS OF NOVEMBER 31, 2015</b>  |          | 1,961,510 | 5,081,840 | 1,391,859 | 1,155,168 | 161,637     | -           | 9,752,014 |

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

FS-4



NACIONAL MINÉRIOS S.A.STATEMENTS OF CASH FLOWS - INDIRECT METHOD  
FOR THE ELEVEN MONTH-PERIOD ENDED NOVEMBER 30, 2015, AND FOR THE YEAR ENDED  
DECEMBER 31, 2014

(In thousands of Brazilian reais - R\$)

|  | 2015      | 2014      |
|--|-----------|-----------|
| <b>CASH FLOWS FROM OPERATING ACTIVITIES</b>  |           |           |
| Net Profit for the period / year   | 1,744,848 | 1,103,480 |
| Adjustments to reconcile profit before income tax and social contribution to net cash generated by operating activities: |           |           |
| Inflation adjustments and exchange differences, net  | 58,484    | (101,886) |
| Accrued charges on borrowings and financing  | 2,797     | 31,397    |
| Depreciation/depletion/amortization  | 39,437    | 45,806    |
| Income tax and social contribution   | 148,964   | 512,913   |
| Provision for sales in installments  | (52,553)  | 53,070    |
| Provision for interest receivable  | (1,349)   | (711,818) |
| Dividends receivable - MRS Logística   | (6,146)   | (21,256)  |
| Other provisions   | 53,685    | 27,328    |
|  | 1,988,167 | 939,034   |
| <br>(Increase) decrease in operating assets:   |           |           |
| Trade receivables  | (90,666)  | 64,622    |
| Inventories  | (13,563)  | 10,999    |
| Advances to suppliers  | 60,045    | 164,753   |
| Recoverable taxes  | (18,358)  | (31,085)  |
| Other receivables  | 57,727    | 44,669    |
| <br>Increase (decrease) in operating liabilities:  |           |           |
| Trade payables to third parties  | (16,965)  | (3,137)   |
| Trade payables to related parties  | (9,801)   | 753       |
| Accrued payroll and related taxes  | 2,176     | 1,140     |
| Taxes payable  | 51,122    | (318)     |
| Other payables   | (22,802)  | (7,081)   |
| <br>Dividends received   | -         | 23,480    |
| Income taxes paid  | (65,703)  | (160,741) |
| Interest received  | 1,450     | 5,816     |
| Interest paid  | (3,035)   | (23,017)  |
| Net cash generated by operating activities   | 1,919,794 | 1,029,887 |
| <b>CASH FLOWS FROM INVESTING ACTIVITIES</b>  |           |           |
| Purchase of property, plant and equipment  | (17,587)  | (127,556) |
| Cash from acquisition of CSN Handel GmbH   | 77,583    | -         |
| Net cash (generated by) used in investing activities   | 59,996    | (127,556) |

32. Subsequent events

665

CASH FLOWS FROM FINANCING ACTIVITIES

|  |             |           |
|--|-------------|-----------|
| New borrowings and financing                                 | -           | 15,747    |
| Repayment of borrowings and financing                        | (441,938)   | (49,408)  |
| Reduction of capital   | (777,930)   | -         |
| Dividends paid   | (5,725,291) | (336,673) |
| Net cash used in financing activities                        | (6,945,159) | (370,334) |
| Effect of exchange rate changes on cash and cash equivalents | -           | 151,931   |
| NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS         | (4,965,369) | 683,928   |
| Cash and cash equivalents at the beginning of the year       | 5,499,139   | 4,815,211 |
| Cash and cash equivalents at the end of the year             | 533,770     | 5,499,139 |
|  | (4,965,369) | 683,928   |

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

FS-5

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Nacional Minérios S.A.

Nacional Minérios s.a.

## NOTES TO THE FINANCIAL STATEMENTS

FOR THE ELEVEN MONTH-PERIOD ENDED NOVEMBER 30, 2015 AND YEAR ENDED DECEMBER 31, 2014

(In thousands of Brazilian Reais - R\$, unless otherwise stated)

### 1. GENERAL INFORMATION

Nacional Minérios S.A. (“Company” or “Namisa”) is a private corporation, incorporated in November 2006 and domiciled in Brazil, with its registered head office located in Congonhas, State of Minas Gerais.

The Company and its subsidiaries included in the consolidated financial statements carries out their mining operations in the Ferriferous Quadrilateral, in the State of Minas Gerais, where they have ore mining rights and iron ore processing facilities. The Company also has an integrated logistics network, by means of long-term contracts with MRS and Congonhas, consisting on a railroad and port facilities, respectively, used to ship its production. This integrated logistics network allows transporting the iron ore produced in Congonhas, Ouro Preto, Itabirito, Rio Acima, and Nova Lima, in the State of Minas Gerais, to Itaguaí, in the State of Rio de Janeiro.

Own iron ore, added to the iron ore purchased from third parties, was substantially sold in the international market, mostly in Europe and Asia. The prices charged in these markets are historically cyclical and subject to significant fluctuations over short periods of time, as a result of several factors related to worldwide demand, strategies adopted by the main steel producers and the foreign exchange rate. All these factors are beyond the Company’s control.

#### **Change of control and liquidation of Namisa**

The Company was jointly controlled until November 30, 2015 under a Shareholders’ Agreement entered into Companhia Siderúrgica Nacional (“CSN”), which holds 60% of Namisa shares, and an Asian Consortium formed by the companies ITOCHU Corporation, JFE Steel Corporation, POSCO, Kobe Steel Ltd., Nisshin Steel Co. Ltd. and China Steel Corp, which jointly hold 40% of the Company’s shares.

On December 11, 2014, the CSN Board of Directors approved the establishment of a strategic alliance with the Asian Consortium (“Transaction”). The Transaction consisted of a business combination whereby the Asian Consortium negotiated its equity interest of the Company (40%) to participate in Company Congonhas Minérios S.A. (“Congonhas”), a mining subsidiary of CSN.

The Transaction was concluded through the signing of an Investment Agreement, a new Congonhas Shareholders Agreement and a new Namisa Shareholders Agreement on November 30, 2015. As from this date, Namisa became fully controlled by Congonhas. Although certain corporate steps and financial settlements were concluded on December 31, 2015, all the risks and rewards related to Namisa’s equity instruments were transferred to Congonhas on November 30, 2015.

Based on Investment Agreement, CSN and Asian Consortium agreed to transfer the assets related of mining rights of Fernandinho, Cayman and Pedras Pretas to Mineração Nacional S.A., a company controlled by CSN. The total amount of net assets transferred to CSN in the transaction is described in the note 25. The transaction was conclude through a capital reduction made on November 30, 2015.

FS-6

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The parties also agreed that Namisa Handel GmbH, an indirect subsidiary of the Company, acquires CSN Handel GmbH, a foreign subsidiary company controlled by CSN. Both steps of the transaction was concluded on November 30, 2015 and was reflected in these financial statements. Detailed information is provided in the note 3.1.

As result of the conclusion of the transaction between CSN and Asian Consortium, on December 31, 2015, the Company was incorporated by Congonhas. Since January 1<sup>st</sup>, 2016, the operations of Namisa's assets was carried out by Congonhas.

As a result of the transaction, these financial statements are being prepared to be included at the 20-F filing of CSN and are presented for the period through the date that CSN had an equity interest in Namisa.

## 2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB).

The financial statements have been prepared based on the historical cost basis, except for certain financial instruments that are measured at fair values, as explained in the accounting policies below. Historical cost is generally based on the fair value of the consideration given in exchange for assets. The basis of presentation also considers that the company will be incorporate by Congonhas on December 31, 2015, and Congonhas will assume its rights and obligations.

The significant accounting policies adopted in the preparation of the financial statements are as follows:

- a) Foreign currency translation
  - (i) *Functional and presentation currency*

The consolidated financial statements have been prepared and are presented in Brazilian Reais (R\$), which is Company's functional currency.

- (ii) *Transactions and balances*

Foreign currency-denominated transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transaction or the dates of valuation when such items are measured. Exchange gains and losses resulting from the settlement of such transactions and the translation at the foreign exchange rates at yearend, related to foreign currency denominated monetary assets and liabilities, are recognized in the income statement line item 'Foreign exchange gains (losses), net'.

- b) Use of estimates and judgments

Critical accounting estimates and assumptions are those deemed important to describe and record the Company's financial position and require analysis and decision-making power, and more complex and subjective estimates and assumptions by Management. The application of these critical accounting policies frequently requires Management analysis and decision-making about the impacts of matters inherently uncertain with regard to the results from

operations and the carrying amounts of assets and liabilities. Actual results may differ from these estimates.

FS-7

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Nacional Minérios S.A.

The estimates and assumptions that present a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next fiscal year are disclosed in the notes to the financial statements and correspond to goodwill impairment testing, revenue recognition, review of useful lives and impairment of property, plant, and equipment, contingent assets and liabilities, legal obligations and obligations related to retirement and restoration of assets.

c) Cash and cash equivalents

Include cash, bank deposit accounts and short-term investments, which consist of highly liquid temporary investments, stated at cost plus income earned through the end of the reporting period, with an insignificant risk of change in fair value or realizable value.

d) Trade receivables

Refer to amounts receivable from customers for the sale of iron ore in the normal course of the Company's business. If the collection period is equivalent to one year or less, trade receivables are classified in current assets. Otherwise, they are recorded in noncurrent assets.

Trade receivables comprise invoices issued (quantities, humidity indexes and preliminary quality grades), valued based on the commodity price established by Platts, at the shipment date, according to the agreement with each customer.

Every month, when applicable, outstanding balances are marked to market based on the future quotation price of the commodities that would be used for the final settlement, when issuing the final invoices.

The final invoices, which finalize the export transactions and are generally issued after receiving and analyzing the commodities (approval of quantities, humidity indexes and metal grades by the customers) are valued as established in each contract.

The result of the adjustments required, both for issuing the final invoices and for marking to market, is recognized as proceeds from sale when occurred.

Based on the history of realization of receivables, Management does not consider necessary to recognize a provision for losses.

e) Inventories

Stated at the lower of cost and net realizable value. Iron ore is recognized from the time it is physically extracted at the mine. The Company uses the absorption costing method. Direct costs are allocated based on objective recording and indirect costs are allocated by apportionment, based on normal production capacity, and include costs incurred on purchase of inventories, production and processing costs, and other costs incurred to bring inventories to their current locations and conditions.

FS-8

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Nacional Minérios S.A.

f) Advances to suppliers

Consist of long-term advances to CSN for purchases of raw materials and port services. The advances were initially recognized at fair value and are measured at amortized cost, they included contractually agreed interest until December 12, 2014 (see note 8.c)). The advances are realized when: (i) the raw materials are delivered and port services are provided; and (ii) 34% of the interest calculated monthly is received in cash. The portion not expected to be realized within 12 months is classified as noncurrent assets.

g) Property, plant and equipment

Property, plant and equipment are carried at historical cost, consisting of the acquisition, production or construction cost, less accumulated depreciation and impairment losses, if any.

The elements of cost of a property, plant and equipment item comprise: (i) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates; (ii) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by Management; and (iii) the initial estimate of dismantling costs and removing the item and restoring the site on which it is located. These costs represent the obligation incurred by the Company when the item is acquired.

Gains and losses on the disposal of a property, plant and equipment item are calculated by comparing the disposal proceeds with the carrying amount of the property, plant and equipment item, and are recognized as other expenses, net, in the income statement.

Depreciation is recognized using the straight-line method, based on the estimated useful lives of each part of an item of property, plant and equipment, and ore deposits depletion is calculated based on the ore volume extracted as compared to the mineable reserve, as this is the method that most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. Land is not depreciated.

The depreciation methods, useful lives and residual values are reviewed at the end of each reporting period, and any adjustments are recognized as changes in accounting estimates.

Exploration expenditures are recognized as expenses until the feasibility of mining activities is established; after this period, subsequent development costs are capitalized. Exploration and valuation expenditures include:

- Research and analysis of exploration area historical data;
- Topographic, geological, geochemical and geophysical studies;
- Determine the mineral asset's volume and quality;
- Examine and test the extraction processes and methods;
- Topographic surveys of the transportation and infrastructure needs;
- Market studies and financial studies.



FS-9

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The costs for the development of new mineral deposits or capacity expansion in mines in operation are capitalized and amortized using the produced (extracted) units method based on the probable and proven ore quantities.

h) Non-current assets held for sale

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset (or disposal group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal group) and its sale is highly probable. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification. Noncurrent assets (and disposal groups) classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell.

i) Intangible assets

Refer basically to goodwill arising on the acquisition of subsidiary already merged, as detailed in note 12, recognized as the positive difference between the price paid and the net fair value of the acquirer's assets and liabilities.

Goodwill has an indefinite useful life, is not subject to amortization, and is tested for impairment at least annually. Impairment losses, if any, are not reversed in subsequent periods.

The Company has a single Cash-Generating Unit (CGU), dedicated exclusively to iron ore processing, to which goodwill was allocated for impairment test purposes.

j) Impairment of nonfinancial assets

The Company reviews annually, or in a shorter period when there is evidence of impairment, the carrying amount of nonfinancial assets subject to amortization to assess events or changes in economic, operating or technological circumstances that might indicate an impairment of assets. Whenever such evidences are identified and the carrying amount exceeds the recoverable amount, a provision for impairment is recognized to adjust the carrying amount to the recoverable amount. The recoverable amount of an asset is the higher of its value in use and its fair value less costs to sell.

k) Current and noncurrent assets and liabilities

An asset is recognized in the balance sheet when it is probable that its future economic benefits will flow to the Company and its cost or amount can be measured reliably. A liability is recognized in the balance sheet when the Company has a legal or constructive obligation as a result of a past event and it is probable that an outflow of funds will be required to settle the obligation. Liabilities include charges, inflation adjustments or exchange differences incurred, when applicable. Assets and liabilities are classified as current when their realization or settlement within the next twelve months is probable. Otherwise, assets and liabilities are stated as noncurrent.

FS-10



Nacional Minérios S.A.

l) Loans and financing

Adjusted through the end of the reporting period according to exchange fluctuations or for inflation indexes, and the financial charges incurred, as contractually agreed.

m) Employee benefits –pension fund and variable compensation program

The Company sponsors a pension plan created in 2012, managed by a private pension fund (CBSPREV Namisa), which grants employees defined contribution pension benefit and defined risk benefits (sickness allowance, disability retirement pensions, and survivors' pensions), funded by the sponsor (50%) and by the employees (50%).

The regular contributions to the pension plan cover the net costs and are recognized in the income statement for the period when they become due. The Company's obligation is limited to the monthly contributions made during the time an employee is working. As the risk benefits are fully tended by employees, the Company only recognizes a liability when the fund accumulated for this purpose is insufficient to cover the benefits provided.

The Company recognizes a liability related to the variable compensation program and profit sharing and bonus payment expenses, calculated based on qualitative and quantitative goals set by Management and recognized in employee benefits line items, in the income statement.

n) Contingent assets and liabilities, and legal obligations

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that the Company will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

Contingent assets are recognized only when there are collaterals or favorable, unappealable court decisions. Contingent assets with a probable favorable outcome are only disclosed in an explanatory note. Contingent liabilities are accrued for to the extent that the Company expects to disburse cash, losses are assessed as probable, and involved amounts can be reliably measured. When the expected likelihood of loss is assessed as possible, a description of the lawsuits and involved amounts are disclosed in the explanatory notes. Contingent liabilities whose likelihood of loss is assessed as remote are neither accrued for nor disclosed, and legal obligations are recognized as payables.

o) Income tax and social contribution

Taxes on profit comprise current and deferred income tax (IRPJ) and social contribution (CSLL). These taxes are recognized in the income statement, except to the extent that they relate to items recognized directly in equity. In this case, they are also recognized in equity, in other comprehensive income.

Current taxes are calculated based on tax laws enacted or substantially enacted by the end of the reporting period in the countries where the Company and its subsidiaries operate and generate taxable profit. In Brazil, the statutory income tax rate is 34%.

Deferred taxes are recognized on temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements, except: (i) on the initial recognition of assets and liabilities in a

transaction that is not a business combination and that affects neither the taxable profit nor the accounting profit; and (ii) differences associated with investments in subsidiaries when it is probable that they will not reverse in the foreseeable future.

FS-11

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Deferred tax assets are only recognized to the extent that it is probable that taxable profits will be available against which those temporary differences can be utilized, based on future projected earnings prepared and supported based on internal assumptions and future economic scenarios, which may, therefore, be subject to changes.

Deferred tax assets and liabilities are presented on a net basis since there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes imposed by the same tax authority on the same entity subject to taxation.

p) Investments

Investments are stated at cost, less a provision for impairment, where applicable.

q) Distribution of dividends

The distribution of dividends to the Company's shareholders is recognized as a liability in the Company's financial statements at the end of the year, according to its bylaws. Any amount in excess of the mandatory minimum dividend is accrued on the date it is approved by the shareholders at the General Meeting.

r) Segment information

The financial statements do not include segment information because the Company operates only in the iron ore processing and sale operating segment, which is consistent with the internal reports used as basis for the Executive Committee's assessments and strategic decision-making.

s) Net operating revenue

Revenue from the sale of iron ore in the normal course of business is measured at the fair value of the consideration received or receivable. Operating revenue is recognized when there is convincing evidence that the most significant risks and rewards of ownership of goods have been transferred to the buyer, it is probable that future economic benefits will flow to the Company, the associated costs and possible returns can be reliably estimated, there is no continued involvement with the goods sold, and the amount of the operating revenue can be reliably measured. If it is probable that discounts will be granted and the value thereof can be reliably measured, then the discount is recognized as a reduction of the operating revenue as sales are recognized.

Due to the individual terms of the sales and freight agreement, the transfer of the risks and rewards usually takes place when the products are load into the ship, in the port of origin.

t) Finance income and finance costs

Finance income comprises interest earned on short-term investments and prepayments to related parties, dividends (except for dividends received by investees accounted for under equity method), and changes in the fair value of financial assets measured at fair value through profit or loss. Interest income is recognized in the income statement under the effective interest method. Dividend income is recognized in the income statement when the Company's right to receive the payment has been established. Distributions received from investees accounted for using the equity method reduce the value of the investment.



Nacional Minérios S.A.

Finance costs include interest on loans, net of discount to present value of provisions, changes in the fair value of financial assets measured at fair value through profit or loss, and impairment losses recognized in financial assets. Loans costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are measured through the income statement using the effective interest method.

Exchange gains and losses are reported on a net basis.

u) Financial instruments

Financial assets and liabilities

• Financial assets

Financial assets can be classified in the following categories: (i) at fair value through profit or loss; (ii) held to maturity; (iii) loans and receivables; and (iv) available for sale. The classification depends on the nature and purpose of the financial assets and is determined on initial recognition. The Company does not have assets classified as held to maturity and available for sale.

(i) At fair value through profit or loss

Financial assets are measured at fair value through profit or loss when they are held for trading, or are designated as measured at fair value through profit or loss on their initial recognition. Financial assets are classified as held for trading when acquired principally for the purpose of selling them in the short term. A financial asset that is not held for trading may be designated as at fair value through profit on initial recognition, when such designation eliminates or significantly reduces a measurement or recognition inconsistency.

Financial assets at fair value through profit or loss are stated at fair value, with any gains or losses recognized in the income statement. Net gains or losses recognized in the income statement incorporate any dividends or interest earned on the financial asset.

(ii) Loans and receivables

These are financial assets with fixed or determinable payments that are not quoted in an active market, measured at amortized cost using the effective interest method, less any impairment, where applicable. Interest income is recognized using the effective interest method.

Effective interest method

It is a method of calculating the amortized cost of a financial asset or a financial liability and of allocating interest income or interest expenses over the period. The effective interest rate is the rate that exactly discounts the estimated future cash receipts or payments (including all fees paid or received that form an integral part of the effective interest rate, transaction costs, and other premiums or discounts) through the expected life of the financial asset, or, where appropriate, a shorter period.

FS-13





- Financial liabilities

Financial liabilities can be classified as: (i) financial liabilities at fair value through profit or loss; or (ii) other financial liabilities. The Company does not have financial liabilities measured at fair value.

Other financial liabilities are initially measured at fair value, less transaction costs, and are subsequently measured at amortized cost using the effective interest method, with interest expense recognized on a yield basis. The effective interest method is a method of calculating the amortized cost of a financial liability and allocating interest expense over the year.

The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability or, where appropriate, a shorter period.

- v) New standards, amendments to and interpretations of standards that are not yet effective

The following standards, amendments to standards and IFRS interpretations issued by the IASB are not yet effective and were not early adopted by the Group for eleven months ended November 30, 2015:

| Standard           | Description   | Effective date |
|--------------------|---|----------------|
| IAS 16 and IAS 38  | <i>Property, Plant and Equipment and Intangible Assets</i> – in May 2014 these accounting standards were revised to clarify that the revenue method will no longer be permitted for depreciation or amortization purposes.  | 2016           |
| IFRS 10 and IAS 28 | <i>Consolidated Financial Statements and Investments in Associates and Joint Ventures</i> – in September 2014 a revision was issued proposing that the gain or loss resulting from the sale or contribution of a subsidiary that does not constitute a business as defined in IFRS 3 to an investor's subsidiary or joint venture should only be recognized to the extent of the unrelated investors' interests in the subsidiary or joint venture. | 2016           |
| IFRS 7             | <i>Financial Instruments: Disclosures</i> – in September 2014 the IASB revised IFRS 7 to provide guidance to clarify whether a servicing contract is continuing involvement and that the additional disclosure requirements are not specific for interim reporting periods. This change has not yet been ratified by the CPC and should be adopted from 2016, with earlier application permitted.   | 2016           |

FS-14



Nacional Minérios S.A.

*Financial Instruments.* IFRS 9 retains, but simplifies, the combined measurement model and establishes two main measurement categories of financial assets: amortized cost and fair value. The classification basis depends on the entity's business model and the characteristics of the financial asset's contractual cash flow.

IFRS 9 retains most of IAS 39 requirements for financial liabilities.

|        |  |      |
|--------|--|------|
| IFRS 9 | <p>The main change refers to those cases where the fair value of the financial liabilities must be segregated so that the fair value portion related to the entity's credit risk is recognized in "Other comprehensive income" and not in profit or loss for the period.</p> | 2018 |
|--------|--|------|

The guidance on IAS 39 on the impairment of financial assets and hedge accounting is still applicable.

|         |  |      |
|---------|--|------|
| IFRS 11 | <p>The amendments to IFRS 11 provide guidance on how to account for the acquisition of a joint operation that constitutes a business as defined in IFRS 3 for a business combination. The amendments also make it clear that the equity interest previously held in a joint operation is not re-measured on the acquisition of an additional equity interest in the same joint operation for as long as joint control is retained.</p> | 2016 |
|---------|--|------|

*Revenue from Contracts with Customers.* This new standard introduces the principles that an entity will apply to determine the revenue measurement and when such revenue shall be recognized.

|        |  |      |
|--------|--|------|
| IFRS15 | <p>IFRS15 replaces IAS 11 <i>Construction Contracts</i>, IAS 18 <i>Revenue</i>, and related interpretations.<br/><i>Defines the principles for recognition, measurement,</i></p> | 2018 |
|--------|--|------|

IFRS16

*presentation and disclosure of leases. IFRS 16 replaces IAS17 - Leases and related interpretations.*

2019

There are no other standards, amendments to standards and interpretations not yet effective that the Group expects to have a material impact on its financial statements.



FS-15

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Nacional Minérios S.A.



### **3. CONSOLIDATED FINANCIAL STATEMENTS**

The subsidiaries are included in the consolidated financial statements from the date control is obtained through the date the control ceases. The subsidiaries' accounting policies are aligned with the policies adopted by the Company.

The financial statements used in the consolidation process are prepared based on the accounting policies described above and include the financial statements of the Company and its subsidiaries listed below, and have been prepared in accordance with the following criteria: (a) elimination of intragroup balances between consolidated companies; (b) elimination of the Parent Company's investments against the related investee's equity, as applicable; (c) elimination of revenues and expenses arising from transactions between consolidated companies; and (d) elimination of profits on inventories, when applicable, arising from sales between consolidated companies.

| <u>Companies</u>                         | Equity interests (%) |             | Main activities  |
|--|----------------------|-------------|--|
|  | <u>2015</u>          | <u>2014</u> |  |
| –  |                      |             |  |
| Direct interest:                         |                      |             |  |
| Full consolidation                       |                      |             |  |
| Namisa International Minérios,<br>S.L.U. | 100.00               | 100.00      | Financial transactions, product sales and holding equity interests |
| Indirect interests:                      |                      |             |  |
| Full consolidation                       |                      |             |  |
| Namisa Europe, LDA.                      | 100.00               | 100.00      | Ore sale and financial transactions                                |
| Namisa Handel GmbH                       | 100.00               | 100.00      | Ore sale and financial transactions                                |
| CSN Handel GmbH                          | 100.00               | -           | Ore sale and financial transactions                                |
| Namisa Ásia Limited                      | 100.00               | 100.00      | Commercial representation  |

### 3.1 ACQUISITION OF CSN HANDEL GMBH

On November 30, 2015 Namisa's subsidiary Namisa Handel GmbH acquired from CSN its wholly-owned subsidiary CSN Handel GmbH. This acquisition was foreseen in the Investment Agreement entered into by CSN and the Asian Consortium, as mentioned in Note 1, as part of the restructuring of the mining activities concentrated on Congonhas Minérios S.A. The purpose of Namisa Handel and CSN Handel is to trade iron ore in the international market.

As per the Investment Agreement the transaction price shall be paid up to 4 months as from the transaction date and was determined considering the net assets at their book value as of November 30, 2015, which was of R\$71,720. The transaction did not generate gain nor loss.

The assets acquired and the liabilities assumed of CSN Handel, which were merged into Namisa, are described in Note 25.

In accordance with IFRS 3, this transaction was considered a business combination under common control and was recorded at book value and, consequently, the acquisition method was not applied.

FS-16

## Nacional Minérios S.A.

## 4. CASH AND CASH EQUIVALENTS

|                                | <u>2015</u>    | <u>2014</u>      |
|--------------------------------|----------------|------------------|
| Cash and bank deposit accounts | 16,009         | 2,105            |
| Short-term investments         |                |                  |
| In Brazil (a)                  | 150,791        | 516,743          |
| Abroad (b)                     | <u>366,970</u> | <u>4,980,291</u> |
|                                | <u>517,761</u> | <u>5,497,034</u> |
| Total                          | <u>533,770</u> | <u>5,499,139</u> |

(a) Fixed income - are investments in Bank Deposit Certificates (CDBs) and debentures with yield linked to the variation of the Interbank Deposit Certificate (CDI). These investments yield approximately 100% of the CDI variation and can be immediately redeemed by the Company, without risks of significant changes in their carrying amount.

(b) Time deposits - temporary deposits in prime banks with daily liquidity, yielding fixed rates until 0.82% per year (0.35% to 0.55% per year in 2014).

## 5. TRADE RECEIVABLES

|  | <u>2015</u>    | <u>2014</u>    |
|--|----------------|----------------|
| Current:                                     |                |                |
| Trade receivables - related parties (note 8) | 180,068        | 2,751          |
| Foreign customers                            | <u>540,991</u> | <u>123,975</u> |
| Total  | <u>721,059</u> | <u>126,726</u> |

As of November 30, 2015 and December 31, 2014, there were no past-due receivables and the average days on sales outstanding over the year was 37 days (41 days in 2014).

To determine the trade receivables recoverability, the Company takes into consideration any change in the customer's creditworthiness from the date the credit was originally granted through the end of the reporting period.

## 6. INVENTORIES

|                    | <u>2015</u>   | <u>2014</u>   |
|--------------------|---------------|---------------|
| Finished goods     | 36,370        | 37,546        |
| Raw materials      | 571           | 8,974         |
| Storeroom supplies | <u>27,352</u> | <u>30,931</u> |
| Total              | <u>64,293</u> | <u>77,451</u> |

The Company assesses periodically the need to recognize a provision for inventory at realizable value and, as of November 30, 2015 and December 31, 2014, there was no need to recognize such a provision.

FS-17

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## 7. RECOVERABLE TAXES

|   | <u>2015</u>    | <u>2014</u>    |
|---|----------------|----------------|
| Income tax and social contribution overpaid | 21,542         | 729            |
| State VAT (ICMS)                            | 135,934        | 137,386        |
| Taxes on revenue (PIS and COFINS)           | -              | 4,980          |
| Withholding Income Tax (IRRF)               | 8,134          | 1,384          |
| Other                                       | <u>168</u>     | <u>276</u>     |
| Total                                       | <u>165,778</u> | <u>144,755</u> |
| Current                                     | 35,578         | 21,077         |
| Noncurrent                                  | <u>130,200</u> | <u>123,678</u> |
| Total                                       | <u>165,778</u> | <u>144,755</u> |

The increase on income tax and social contribution overpaid refers to credits of income tax on financial investments redemptions only used to reduce tax payable on December, 2015 (there was no taxable income until November).

The noncurrent portion refers basically to ICMS credits. Namisa is predominantly an export company, accumulating ICMS credits in its branches, mainly in Congonhas-MG due to its mining processing operations with CSN and also in Ouro Preto and Fernandinho due to its purchases of electric power and diesel.

The Company's management periodically assesses the recovery of ICMS credits and concluded that it is not necessary to record any provision for impairment of these credits.

The Company has been successful in realizing the ICMS credits through the acquisition of trucks for iron ore transportation. As described in note 1 to the financial statements, the Company will be merged into Congonhas Minerios, the Company ensures that it will use the entire balance of ICMS credits in domestic sales, mainly to supply CSN's demands.

## 8. RELATED-PARTY BALANCES AND TRANSACTIONS

The Company's operations are integrated with CSN, mainly the supply of iron ore from Casa Pedra, the port loading at the Coal Terminal (TECAR) in Itaguaí, RJ, and the use of railway transportation with MRS Logística S.A. ("MRS Logística").

As of November 30, 2015 and December 31, 2014, the balances of assets and liabilities and the transaction amounts are as follows:

FS-18

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## Nacional Minérios S.A.

## a) Balance sheet accounts

|                                  | 2015      |                  |                     |           | 2014      |                  |                     |           |
|----------------------------------|-----------|------------------|---------------------|-----------|-----------|------------------|---------------------|-----------|
|                                  | CSN       | MRS<br>Logística | Asian<br>Consortium | Total     | CSN       | MRS<br>Logística | Asian<br>Consortium | Total     |
| <u>Assets</u>                    |           |                  |                     |           |           |                  |                     |           |
| Current assets:                  |           |                  |                     |           |           |                  |                     |           |
| Trade receivables                | 180,068   | -                | -                   | 180,068   | 2,751     | -                | -                   | 2,751     |
| Other receivables (1)            | 147,335   | -                | -                   | 147,335   | 51,874    | -                | -                   | 51,874    |
| Dividends (1)                    | -         | 15,156           | -                   | 15,156    | -         | 9,011            | -                   | 9,011     |
| Prepayments (2)                  | 113,847   | -                | -                   | 113,847   | 247,077   | -                | -                   | 247,077   |
| Total                            | 441,250   | 15,156           | -                   | 456,406   | 301,703   | <u>9,911</u>     | -                   | 310,714   |
| Noncurrent assets:               |           |                  |                     |           |           |                  |                     |           |
| Prepayments (2)                  | 9,310,901 | -                | -                   | 9,310,901 | 9,236,170 | -                | -                   | 9,236,170 |
| Total                            | 9,310,901 | -                | -                   | 9,310,901 | 9,236,170 | -                | -                   | 9,236,170 |
| <u>Liabilities</u>               |           |                  |                     |           |           |                  |                     |           |
| Current liabilities:             |           |                  |                     |           |           |                  |                     |           |
| Trade payables                   | 549,141   | 3,342            | -                   | 552,483   | 11,558    | 2,314            | -                   | 13,872    |
| Loans and financing<br>(note 13) | -         | -                | -                   | -         | 364,118   | -                | -                   | 364,118   |
| Dividends (note 16)              | 694,080   | -                | 462,720             | 1,156,800 | 33,458    | -                | 22,306              | 55,764    |
| Other payables                   | 176,115   | 837              | -                   | 176,952   | 74,720    | 3,999            | -                   | 78,719    |
| Total                            | 1,419,336 | 4,179            | 462,720             | 1,886,235 | 483,854   | 6,313            | 22,306              | 512,473   |

(1) Refer to amounts recorded in the balance sheet, in line item 'Loans and receivables'.

(2) Refer to amounts recorded in the balance sheet, in line item 'Advances to suppliers'.

FS-19

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## b) Related-party transactions

|                               | 2015      |                  |                     | Total     |
|-------------------------------|-----------|------------------|---------------------|-----------|
|                               | CSN       | MRS<br>Logística | Asian<br>Consortium |           |
| Income statement              |           |                  |                     |           |
| Revenues                      | 176,070   | -                | -                   | 176,070   |
| Costs                         | (105,452) | (87,069)         | -                   | (192,521) |
| Finance income (expense), net | (5,904)   | 6,145            | -                   | 241       |
| Exchange gains (losses), net  | (80,706)  | -                | -                   | (80,706)  |
| Total                         | (15,992)  | (80,924)         | -                   | (96,916)  |

  

|                               | 2014      |                  |                     | Total     |
|-------------------------------|-----------|------------------|---------------------|-----------|
|                               | CSN       | MRS<br>Logística | Asian<br>Consortium |           |
| Income statement              |           |                  |                     |           |
| Revenues                      | 7,126     | -                | -                   | 7,126     |
| Costs                         | (316,355) | (174,329)        | -                   | (490,684) |
| Finance income (expense), net | 1,028,431 | 21,102           | -                   | 1,049,533 |
| Exchange gains (losses), net  | (50,412)  | -                | -                   | (50,412)  |
| Total                         | 668,790   | (153,227)        | -                   | 515,563   |

## c) Description of agreements with related parties

The following is a description of the main transactions with related parties:

## i) CSN – prepayment and ore exports

The Company entered into long-term agreements with CSN for port operation services and raw iron ore supply (“ROM”) from the Casa de Pedra mine, as described below:

- Port operation services and iron ore supply agreement

On December 30, 2008, the Company entered into an agreement to acquire port services and purchase iron ore with CSN, for an estimated 34-year period. The volume agreed is 1.7 billion metric tons of raw iron ore and port services for a volume of 1.1 billion metric tons. The Company prepaid the equivalent to approximately 50% of the value added of ROM and port services, amounting to R\$7.3 billion. Until December 12, 2014, the prepaid amounts were adjusted for interest at the rate of 12.5% per year. On December 12, 2014, the Company’s shareholders approved the “Transitional Agreement”, an investment agreement for a new strategic alliance between CSN and the Asian Consortium aimed at consolidating the mining activities at Congonhas, currently a subsidiary of CSN, which will involve, among other actions, the merger of the Company (“Transaction”). The “Transitional Agreement” canceled the clauses that established interest of 12.5% p.a. on these agreements, including the creation of a resolutive condition

linked to the consummation of the transaction that will reestablish the collection of interest retroactively, if this transaction does not materialize. The Transaction was concluded through the signing of a new Congonhas shareholders agreement on November 30, 2015, ratifying that there is no need to recognize interest of 12.5% p.a. on these agreements retroactively. As result of the conclusion of the transaction between CSN and Asian Consortium, on December 31, 2015, these agreements were extinguished by the merger of Namisa into Congonhas.

FS-20

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## Nacional Minérios S.A.

## ii) Loans (export prepayments)

The Company entered into export prepayment financial agreements with certain CSN subsidiaries, which are detailed in note 13. During the first semester of 2015, these agreements were totally paid.

## iii) MRS Logística

The Company entered into a long-term railway transportation service agreement to ship and handle its production. The obligations assumed and the amounts involved as detailed in note 15.

## iv) Asian Consortium

The Company usually exports its products to the members of the Asian Consortium, under long-term agreements and at prices based on market quotations, but there was no sales in 2014 and 2015 years.

## v) Namisa Handel GmbH (“Namisa Handel”)

The Company exports iron ore to Namisa Handel, which is its wholly-owned subsidiary, to sell the iron ore in the international market.

## d) Management compensation

The key management personnel, who have the authority and responsibility for planning, managing and controlling Company operations, include the members of the Board of Directors, the statutory officers, and the other officers. The table below shows the breakdown of their compensation during 2015 and 2014:

|                          | 2015  | 2014  |
|--------------------------|-------|-------|
| Short-term benefits      | 2,282 | 3,467 |
| Post-employment benefits | 25    | 24    |
| Total                    | 2,307 | 3,491 |

## 9. INCOME TAX AND SOCIAL CONTRIBUTION

## a) Income tax and social contribution recognized in the income statement are as follows:

|          | 2015      | 2014      |
|----------|-----------|-----------|
| Current  | (162,062) | (359,070) |
| Deferred | 13,098    | (153,843) |
| Total    | (148,964) | (512,913) |

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FS-21

Nacional Minérios S.A.

b) The reconciliation of the consolidated income tax and social contribution expenses with the effective statutory rates is as follows:

|   | 2015      | 2014      |
|---|-----------|-----------|
| Profit before income tax and social contribution  | 2,055,450 | 1,616,393 |
| Income tax and social contribution expenses based on pretax profit, at their combined statutory rate          | 34%       | 34%       |
|   | (698,853) | (549,574) |
| Effect of income tax on permanent differences:  |           |           |
| Tax-exempt foreign profit   | 561,078   | (456)     |
| Transfer pricing adjustments (PECEX)  | (10,695)  | (3,954)   |
| Adjustment to the 2013 provision for income tax and social contribution to calculate the effective obligation | -         | 23,808    |
| Other permanent differences   | (494)     | 17,263    |
| Income tax and social contribution expenses   | (148,964) | (512,913) |

c) Deferred income tax and social contribution are recognized to reflect the future tax effects attributable to temporary differences between the tax bases of assets and liabilities and their carrying amounts, as shown below:

|  | IRPJ/CSLL<br>2015 | 2014      |
|--|-------------------|-----------|
| Assets:  |                   |           |
| Provision for losses - advances to suppliers   | 3,297             | 3,297     |
| Operating provisions related to energy, services and other                                     | 47,740            | 33,371    |
| IRPJ/CSLL liability – goodwill Cayman and CFM deducted under the Transitional Tax Regime (RTT) | (196,700)         | (196,700) |
| Other  | 5,545             | 8,158     |
| Total  | (140,118)         | (151,874) |

The movement in the deferred taxes balance in the eleven month-period ended November 30, 2015 and year ended December 31, 2014 is as follows:

|   | IRPJ/CSLL<br>2015 | 2014      |
|---|-------------------|-----------|
| Opening balance                                       | (151,874)         | 1,968     |
| Goodwill amortization for tax purposes                | -                 | (162,383) |
| Recognition of operating provisions                   | 14,369            | 12,531    |
| Adjustments for temporarily nondeductible inventories | (6,553)           | (3,990)   |

|                 |           |           |
|-----------------|-----------|-----------|
| Other           | 3,940     | -         |
| Closing balance | (140,118) | (151,874) |

Law 12,973/14, enacted in May 2014, brought significant changes to tax legislation, which among others, revoked the Transition Tax Regime (RTT). These changes directly affect the determination of the income tax and social contribution basis. As from 2015, the application of the Law is mandatory and CSN applied the Law's requirements.

FS-22

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Nacional Minérios S.A.

## 10. INVESTMENTS

2015 and 2014

Investment in equity securities:  
MRS Logística S.A.

171,760

The following is a brief description of the investments:

- *MRS Logística*

In November 2008, CSN capitalized at Namisa 10% of the nonvoting, nonconvertible class “A” preferred shares of MRS Logística, for R\$172 million, as disclosed in the subscription report and share valuation report issued by MRS Logística.

MRS Logística is a corporation engaged in the operation and development of public cargo railway transportation services in the Southeast, which covers Rio de Janeiro, São Paulo, and Belo Horizonte.

The investment in MRS is stated at historical cost.

## 11. PROPERTY, PLANT AND EQUIPMENT

## a) Breakdown of property, plant and equipment

|   | 2015                   |         |                             |         | 2014                      |         |                             |         |
|---|------------------------|---------|-----------------------------|---------|---------------------------|---------|-----------------------------|---------|
|   | Depr. rate<br>(% p.a.) | Cost    | Accumulated<br>depreciation | Net     | Depr.<br>rate (%<br>p.a.) | Cost    | Accumulated<br>depreciation | Net     |
| Land  |                        | 4,442   | -                           | 4,442   |                           | 4,442   | -                           | 4,442   |
| Buildings                                   | 2.90                   | 191,511 | (15,066)                    | 176,445 | 2.25                      | 120,417 | (10,251)                    | 110,166 |
| Furniture and fixtures                      | 7.91                   | 5,429   | (2,563)                     | 2,866   | 7.82                      | 5,654   | (2,328)                     | 3,326   |
| Vehicles                                    | 13.21                  | 1,068   | (587)                       | 481     | 13.19                     | 1,068   | (458)                       | 610     |
| Machinery, equipment and facilities         | 7.49                   | 240,850 | (102,834)                   | 138,016 | 11.12                     | 208,844 | (81,042)                    | 127,802 |
| Computer equipment                          | 12.69                  | 3,803   | (3,181)                     | 622     | 12.69                     | 3,830   | (2,843)                     | 987     |
| Mines and ore deposits                      | (*)                    | 3,172   | (158)                       | 3,014   | (*)                       | 13,232  | (1,625)                     | 11,607  |
| Improvements in infrastructure and drainage | 4.00                   | 11,054  | (533)                       | 10,521  | 4.00                      | 10,465  | (140)                       | 10,325  |
| Leasehold improvements                      | 2.00                   | 50,422  | (2,249)                     | 48,173  | 1.97                      | 51,592  | (2,577)                     | 49,015  |
| Other assets                                |                        | 5,925   | -                           | 5,925   |                           | 4,766   | -                           | 4,766   |
| Construction in progress                    |                        | 121,072 | -                           | 121,072 |                           | 240,663 | -                           | 240,663 |
| Total                                       |                        | 638,748 | (127,171)                   | 511,577 |                           | 664,973 | (101,264)                   | 563,709 |

(\*) The depletion of ore deposits is calculated based on the volume of ore extracted as compared to the mineable reserve, and the Company estimates that the deposits will be depleted in 30 years.

b) Construction in progress

Costs classified as construction in progress are basically composed of services acquired and parts and pieces purchased, to be used as investments for performance improvement, technological upgrading, expansion, and acquisition of assets, which will be transferred to the related line items and depreciated from the moment they become available for use. As of November 30, 2015 and December 31, 2014, the balance is apportioned among the following projects:

FS-23

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Nacional Minérios S.A.

| <u>Main projects</u>                           | <u>2015</u> | <u>2014</u> |
|--|-------------|-------------|
| Expansion of administrative facilities         | 807         | 13,333      |
| Expansion of production capacity – Pires       | 66,012      | 143,187     |
| Pelletization plant                            | 32,107      | 31,187      |
| Expansion of production capacity – Fernandinho | -           | 17,074      |
| Other  | 22,146      | 34,882      |
|  | 121,072     | 240,663     |

## c) Movement in property, plant and equipment:

|   | <u>2014</u><br><u>Opening</u><br><u>balance</u> | <u>Additions</u> | <u>Transfer</u> | <u>Depreciation</u> | <u>Other</u><br><u>movements (*)</u> | <u>2015</u><br><u>Closing</u><br><u>balance</u> |
|---|---|------------------|-----------------|---------------------|--------------------------------------|---|
| Land  | 4,442   | -                | -               | -                   | (1)                                  | 4,442   |
| Buildings                                   | 110,166   | -                | 72,740          | (5,009)             | (1,452)                              | 176,445   |
| Machinery, equipment and facilities         | 127,802   | 559              | 38,077          | (31,082)            | 2,660                                | 138,016   |
| Furniture and fixtures                      | 3,326   | 119              | -               | (358)               | (221)                                | 2,866   |
| Vehicles                                    | 610   | -                | -               | (129)               | -                                    | 481   |
| Computer equipment                          | 987   | -                | 5               | (362)               | (8)                                  | 622   |
| Mines and ore deposits                      | 11,607  | -                | -               | (1)                 | (8,562)                              | 3,014   |
| Improvements in infrastructure and drainage | 10,325  | -                | 589             | (393)               | -                                    | 10,521  |
| Leasehold improvements                      | 49,015  | -                | 80              | (919)               | (3)                                  | 48,173  |
| Other assets                                | 4,766   | 306              | 127             | -                   | 853                                  | 5,925   |
| Construction in progress                    | 240,663   | 16,561           | (111,490)       | -                   | (24,662)                             | 121,072   |
| Total                                       | 563,709   | 17,545           | -               | (38,253)            | (31,424)                             | 511,577   |

(\*) During the year the Company transferred R\$39,285, related to the assets of Fernandinho, Cayman and Pedras Pretas, as described on General Information, for the Transaction proposes, compensate with acquisition of some trucks with ICMS credits (R\$7,154).

FS-24

Nacional Minérios S.A.

## 12. INTANGIBLE ASSETS

The carrying amounts of intangible assets as of November 30, 2015 and December 31, 2014 are as follows:

|                | Amortization rate<br>(% p.a.) | Cost    | 2015<br>Accumulated<br>amortization | Net     |
|----------------|-------------------------------|---------|-------------------------------------|---------|
| Goodwill – CFM | -                             | 578,531 | -                                   | 578,531 |
| Software       | 19.94                         | 6,484   | (3,046)                             | 3,437   |
| Total          |                               | 585,015 | (3,046)                             | 581,968 |

|                | Amortization rate<br>(% p.a.) | Cost    | 2014<br>Accumulated<br>amortization | Net     |
|----------------|-------------------------------|---------|-------------------------------------|---------|
| Goodwill – CFM | -                             | 578,531 | -                                   | 578,531 |
| Software       | 19.94                         | 6,442   | (1,863)                             | 4,579   |
| Total          |                               | 584,973 | (1,863)                             | 583,110 |

### *Nature of goodwill based on future profitability*

In July 2007, Namisa acquired Companhia de Fomento Mineral e Participações - CFM (“CFM”), located in Ouro Preto, State of Minas Gerais, and its wholly-owned subsidiary Cayman Mineração do Brasil Ltda. (“Cayman”), which were engaged in the extraction of iron ore and also owned iron ore processing facilities in the same State. The goodwill arising on this transaction is based on expected future profitability and was allocated to a single CGU since the Company operates only in the mining segment and all its assets generate cash flows together. This amount has not been amortized since 2009 due to the adoption of the international financial reporting standards (IFRS) and its carrying amount represents the net amount existing when the amortization was discontinued.

### *Impairment test*

The recoverable amount of a CGU is determined based on value-in-use calculations. These calculations use cash flow projections, before income tax and social contribution, based on the business plan approved by Management.

To prepare the cash flow projection that supported this valuation, the Company adopted the following assumptions:

- **Gross margin:** this margin was calculated based on the expansion plans already approved in the Company’s business plan. The iron ore prices in the international market were used as basis in projections prepared by official mining industry institutions and the foreign exchange rate was calculated using a projected US dollar curve in real terms through 2019, disclosed by the Central Bank of Brazil (BACEN), since from 2019 onward the change used is zero.

- Cost adjustment: cost adjustment was based on historical data and price and foreign exchange curves used in industry reports.

FS-25

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- Growth rate: the cash flow projection period extends to 2067 due to the length of some projects' implementation periods and the termination dates of the main agreements based on which the business plan was developed. It is not necessary, therefore, to take into consideration a growth rate since the projection period exceeds 50 years.
- Discount rate: set at 13.91% per year, after taxes on income.

## 13. LOANS AND FINANCING

|  | 2015   | 2014    |
|--|--------|---------|
| Current liabilities:   |        |         |
| PPE - related parties (note 8).                                    | -      | 364,118 |
| National Bank for Economic and Social Development (BNDES) – FINAME | 4,680  | 4,700   |
|  | 4,680  | 368,818 |
| Noncurrent liabilities:  |        |         |
| National Bank for Economic and Social Development (BNDES) – FINAME | 25,307 | 29,541  |
| Total  | 29,987 | 398,359 |

The table below shows fundings, payments and accruals on our loans and financings during the year:

|                        | <b>11/30/2015</b> | <b>12/31/2014</b> |
|------------------------|-------------------|-------------------|
| <b>Opening balance</b> | <b>398,359</b>    | <b>382,209</b>    |
| Funding transactions   | -                 | 15,747            |
| Payment of principal   | (441,938)         | (49,408)          |
| Interest payments      | (3,035)           | (23,017)          |
| Provision of interest  | 2,797             | 24,682            |
| Foreign exchange       | 73,804            | 48,146            |
| <b>Closing balance</b> | <b>29,987</b>     | <b>398,359</b>    |

Loans and financing from related parties paid in 2015 refer basically to export prepayments with CSN's subsidiaries.

The outstanding balance is related to BNDES loan to purchase operating equipment, amounting to R\$29,987 (R\$34,241 as of December, 2014), with average repayment term of 100 months and bearing interest between 5.5% and 8.0% per year, payable on a monthly basis.

The maturities of the noncurrent portion of the loans are disclosed in note 23.d).

None of the existing loan agreements contain restrictive covenants. The agreements entered into with the BNDES are collateralized by the financed assets.

FS-26

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Nacional Minérios S.A.

#### 14. PROVISION FOR RISKS

The provisions for risks were estimated by Management based on information provided by its legal counsel (in-house and external), who analyzed the outstanding lawsuits. The provisions were set up in an amount considered sufficient to cover potential losses on the outstanding lawsuits, as follows:

|               | 2015  | 2014  |
|---------------|-------|-------|
| Labor         | 4,391 | 149   |
| Civil         | 21    | -     |
| Environmental | 3,074 | 977   |
| Total         | 7,486 | 1,126 |

Additionally, the Company is party to other lawsuits classified by the legal counsel as possible losses, which totaled R\$2,950,525 as of November 30, 2015 (R\$2,626,004 as of December 31, 2014), of which R\$19,294 (R\$21,381 as of December 31, 2014) in labor lawsuits, R\$67,531 (R\$1,786 as of December 31, 2014) in civil lawsuits, R\$2,843,096 (R\$2,593,015 as of December 31, 2014) in tax lawsuits, and R\$20,604 (R\$9,863 as of December 31, 2014) in environmental lawsuits. We present below a brief description of the most significant lawsuits with the likelihood of loss as possible:

- a) Administrative proceeding - IRPJ/CSLL assessment notice on profits abroad amounting to R\$330,908 (R\$285,825 as of December 31, 2014), including principal, fine, and interest: this tax assessment notice refers to the assessment of income tax and social contribution on 2008 profits reported by foreign subsidiaries.
- b) Administrative proceeding - IRRF assessment notice of R\$170,178 (R\$161,530 as of December 31, 2014), including principal, fine, and interest: this tax assessment notice refers to the assessment of a Withholding Income Tax (IRRF), allegedly due by Namisa as the taxpayer responsible for withholding and payment of the tax levied on the capital gain earned by a legal entity domiciled abroad, which sold an asset in Brazil.
- c) Administrative proceeding - IRPJ/CSLL assessment notice of R\$2,242,166 (R\$2,036,676 as of December 31, 2014), including principal, fine, and interest: this tax assessment refers to the disallowance of the amortization of goodwill expenses in 2009, 2010 and 2011, as a result of the merger of Big Jump Energy Participações S.A.

FS-27

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## 15. CONTRACTUAL OBLIGATIONS

In January 2011 the Company, together with the shareholder CSN, entered into an iron ore railway transportation agreement with MRS Logística, for a 16-year period. This agreement contains a clause that ensures a minimum payment of 80% of the volume contracted, irrespective of the volume carried (“take-or-pay”). The minimum future payment required until the termination of the agreement is approximately R\$3,959,054, distributed as follows:

|              |           |
|--------------|-----------|
| 2015         | 10,535    |
| 2016         | 166,806   |
| 2017         | 175,146   |
| 2018         | 210,514   |
| 2019         | 227,342   |
| Others years | 3,168,711 |
| Total        | 3,959,054 |

## 16. SHAREHOLDERS EQUITY

## a) Paid-in capital

The Company’s paid-in capital is R\$1,961,510 (R\$2,800,000 as of December 31, 2014), represented by 472,236,944 (475,067,405 as of December 31, 2014) common shares without par value, of which are held by the shareholders as follows:

December 31, 2014 and November 30, 2015 (before the transaction described in Note 1)

| <u>Shareholders</u>               | <u>Country</u> | <u>Number of shares</u> | <u>Equity interest (%)</u> |
|-----------------------------------|----------------|-------------------------|----------------------------|
| Companhia Siderúrgica Nacional    | Brazil         | 285,040,443             | 60.00                      |
| Brazil Japan Iron Ore Corporation | Japan          | 154,491,661             | 32.52                      |
| POSCO                             | South Korea    | 30,784,627              | 6.48                       |
| China Steel Corporation           | China          | 4,750,674               | 1.00                       |
| Total                             |                | 475,067,405             | 100.00                     |

November 30, 2015 (after transaction described in Note 1)

| <u>Shareholders</u>            | <u>Country</u> | <u>Ordinary</u> | <u>Preferred</u> | <u>Total shares</u> | <u>Equity interest (%)</u> |
|--------------------------------|----------------|-----------------|------------------|---------------------|----------------------------|
| Companhia Siderúrgica Nacional | Brazil         | 282,209,982     | -                | 282,209,982         | 59.76                      |
| Congonhas Minérios S.A.        | Brazil         | 86,262,061      | 103,764,901      | 190,026,962         | 40.24                      |
| Total                          |                | 368,472,043     | 103,764,901      | 472,236,944         | 100.00                     |

December 31, 2015 (before merger by Congonhas described in Note 1)

| <u>Shareholders</u> | <u>Country</u> | <u>Total shares</u> | <u>Equity interest (%)</u> |
|---------------------|----------------|---------------------|----------------------------|
|---------------------|----------------|---------------------|----------------------------|

|                         |        | <u>Ordinary</u> | <u>Preferred</u> |             |        |
|-------------------------|--------|-----------------|------------------|-------------|--------|
| Congonhas Minérios S.A. | Brazil | 368,472,043     | 103,764,901      | 472,236,944 | 100.00 |

FS-28

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Nacional Minérios S.A.

On February 12, 2015, the Company paid as capital reduction of R\$777,930, after 60 days from the act publication date of the Extraordinary Shareholders Meeting held on December 12, 2014. With such capital reduction, the Company's capital was decrease from R\$2,800,000 to R\$2,022,070.

In 2014, the main corporate acts analyzed in meetings were:

- (i) At the Annual Shareholders Meeting held on March 28, 2014 the shareholders approved the consolidated financial statements of Namisa for the years ended December 31, 2013 and 2012. The allocation of the profit for the year ended December 31, 2013 to an earnings reserve was approved, as set out in Article 195 of Law 6,404/76. The shareholders also approved the payment of the remaining balance of the dividends proposed for the year ended December 31, 2011 amounting to R\$336,673.
- (ii) At the Extraordinary Shareholders Meeting held on July 17, 2014 the shareholders approved the proposal for bylaws of the recently created subsidiary Namisa Asia Limited.
- (iii) At the Extraordinary Shareholders Meeting held on December 12, 2014, agreements were signed with related parties in order to consolidate the mining assets of the shareholder CSN with those of the Company, as described in General Information.
- (iv) At the Extraordinary Shareholders Meeting held on December 12, 2014 the shareholders approved the Company's capital reduction by R\$777,930 to be paid in 2015.

In 2015, the main corporate acts analyzed in meetings were:

- (v) At the Annual Shareholders Meeting held on April 30, 2015 the shareholders approved the consolidated financial statements of Namisa for the years ended December 31, 2014 and 2013. The allocation of the profit for the year ended December 31, 2014 was approved as follows: (a) the amount of R\$1,047,716 to earnings reserve, as set out in Article 195 of Law 6,404/76; (b) the remaining amount of R\$55,764 as dividends proposed for the year ended December 31, 2015.
- (vi) At the Extraordinary Shareholders Meeting held on November 30, 2015, the shareholders deliberates as dividends the amount of R\$6,499,436 (R\$5,977,397 from earning reserves and R\$522,039 from part of the profits from de current year), as describe in notes 16.d), 16.e) and 16.f). The payment of R\$5,342,636 was made at the same date and R\$1,156,800 will be made until November 30, 2016.
- (vii) At the Extraordinary Shareholders Meeting held on November 30, 2015, the shareholders approved a partial split involving the assets of Fernandinho, Cayman and Pedras Pretas for merger in the Mineração Nacional S.A., a CSN subsidiary, at a book value of R\$60,560 according to the appraisal report. As a result of this split of assets, the capital was reduced in the same amount.
- (viii) At the Extraordinary Shareholders Meeting held on November 30, 2015, the shareholders approved a conversion of 103,764,901 ordinary shares owned by Congonhas to preferred shares. These preferred shares have: a) full voting rights; b) priority on payments of fixed annual dividends corresponding to 0,000000160606500383614% of the Company's capital.



(ix) At the Extraordinary Shareholders Meeting held on November 30, 2015, the shareholders declare and paid, on this date, dividends of R\$326,891 from the current profit of the year, based on the extraordinary balance sheet of September 30, 2015, to the owners of preferred shares.

FS-30

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## Nacional Minérios S.A.

## b) Capital reserve

The capital reserve of R\$6,473,699 as of November 30, 2015 and December 31, 2014 comprises R\$5,081,840 recognized on December 30, 2008 related to premium arising on the issuance of 187,749,249 new registered common shares, without par value, subscribed and paid in by Big Jump Energy Participações S.A., at the unit price of R\$38.81, of which R\$3.08 represents the unitary issuance price, set according to Article 170, II, of Law 6,404/76, and R\$35.73 per share was allocated to the capital reserve; and special goodwill reserve on the merger of Big Jump Energy Participações S.A., amounting to R\$1,391,859, as approved at the Extraordinary Shareholders Meeting held on July 30, 2009.

## c) Legal reserve

Since 2012 the Company, in its interpretation of Article 193, paragraph 1, of the aforementioned Law, has not recognized the legal reserve as it understands that its capital reserves exceed 30% of the issued capital.

## d) Allocation of results

Until the signing of the Investment Agreement on December 12, 2014 between CSN and the Asian Consortium described in Note 1, management questioned the contractual interests mechanism that was used for adjusting the prepayment balances under the operating agreements mentioned in Note 8(c) because it was understood that the interests were causing distortions on the cash flows and results of operations of the Company. Considering this, management submitted to the Board of Directors a proposal to address the contractual interests issue, which was not approved by the Board of Directors. The financial statements related to the years ended before and as of December 31, 2014 were prepared based on the terms of the agreements and included the interests accrual capitalized on the prepayment balances at the contractually established interest rates. As a result, the amount under discussion of interests accrued throughout those years was not fully paid as dividends and, instead, were retained in a specific reserve. In this context, the amounts allocated to that specific reserve basically corresponded to the interests income generated from the operating agreements in the three-year ended December 31, 2014, as illustrated below.

Finally, as a result of the Investment Agreement signed in December 2014, CSN and the Asian Consortium agreed to extinguish the interests accrual on the operating agreements and determined the payment as dividends of the full amount retained in that specific reserve.

As these financial statements were not prepared for the twelve-month period ended December 31, 2015, as explained in Note 2, the Brazilian Corporate Law does not require the Company to propose and approve in a General Meeting the distribution of net results based on the eleven-month period ended November 30, 2015.

|                             | 2015      | 2014        |
|-----------------------------|-----------|-------------|
| Profit of the period / year | 1,744,848 | 1,103,480   |
| Proposed dividends          | (848,930) | (55,764)    |
| Earnings reserve            | 895,918   | (1,047,716) |



## e) Dividends

The Company's bylaws foresees for the payment of minimum dividends equivalent to 50% of the net profit for the year, adjusted according to the corporate law (Law 6404/76); however, in the years ended December 31, 2014, in order to avoid the payment of dividends that may be affected by the above mentioned discussions that are still pending, dividends were proposed in the limit of the operating results, amounting to R\$55,764.

As a condition to sign a new Congonhas Shareholders Agreement, the shareholders approve on November 30, 2015, in a Extraordinary Shareholders Meeting, to distribute dividends of R\$6,499,436, of which R\$5,977,397 from Earnings reserve and R\$522,039 from the Profit of the year 2015.

The shareholders also approve to distribute and paid a fixed dividends of R\$326,891 from the Profit of the year 2015, to the preferred shareholders.

## f) Earnings reserve

The Extraordinary Shareholders Meeting on November 30, 2015 deliberates to use R\$5,977,397 to distribute extraordinary dividends from earning reserves.

In view of the scenario previously described, Company's Management proposes the allocation of a portion of the results for the years ended December 31, 2014 for the recognition of earnings reserve as required by Article 196 of Law 6,404/76, amounting to R\$1,047,716.

There is no deliberation for the remaining Profit of the year 2015 of R\$895,918 as on November 30, 2015.

## 17. EARNINGS PER SHARE

Basic earnings per share were calculated based on profit for the year divided by the weighted average number of common shares outstanding during the year. The Company does not have treasury shares. Earnings per share were calculated as shown in the table below:

|   | 2015      | 2014      |
|---|-----------|-----------|
| Profit attributable to Namisa's owners                    | 1,744,849 | 1,103,480 |
| Fixed dividends on preferred shares                       | 326,891   | -         |
| Profit on ordinary shares attributable to Namisa's owners | 1,417,958 | 1,103,480 |
| Weighted average number of thousand of shares             | 474,810   | 475,067   |
| Basic earnings per shares                                 | 2,9864    | 2,3228    |
| Preferred shares number of thousand of shares             | 103,766   |           |
| Basic earnings per shares                                 | 3,1503    |           |

The Company does not have instruments convertible into shares in the reporting years, therefore, basic earnings per share are equal to diluted earnings per share.



Nacional Minérios S.A.

## 18. NET OPERATING REVENUE

The reconciliation between gross revenues and net revenues disclosed in the income statement is detailed below. The decrease in net revenues in 2015 compared to 2014 was due to the lower prices and lower volume produced and sold during the year. The increase in the domestic market in 2015 was due to implementation of services provided to CSN.

|   | 2015     | 2014      |
|---|----------|-----------|
| Gross operating revenue:                                  |          |           |
| Domestic market   | 191,902  | 21,654    |
| Foreign market  | 603,164  | 1,403,054 |
| Accrual for price adjustment according to sales contracts | (23,419) | (53,070)  |
|   | 771,647  | 1,477,778 |
| Deductions:   |          |           |
| Taxes on sales  | (20,051) | (2,719)   |
| Returns and rebates                                       | (1)      | (1)       |
| Net operating revenue                                     | 751,595  | 1,475,058 |

## 19. INFORMATION ON THE NATURE OF THE EXPENSES RECOGNIZED IN THE INCOME STATEMENT

|                                     | 2015      | Consolidated<br>2014 |
|-------------------------------------|-----------|----------------------|
| Third-party material                | (171,721) | (406,358)            |
| Port handling                       | (77,643)  | (219,429)            |
| Railway freight                     | (83,339)  | (168,863)            |
| Freight and insurance               | (70,252)  | (202,926)            |
| Raw material                        | -         | (152,262)            |
| Labor                               | (103,101) | (108,256)            |
| Operating services                  | (40,105)  | (76,820)             |
| Maintenance                         | (48,640)  | (51,376)             |
| Demurrage                           | (2,773)   | (11,069)             |
| Infrastructure services             | (31,972)  | (17,927)             |
| Depreciation/amortization           | (39,436)  | (45,806)             |
| Other                               | (23,425)  | (49,464)             |
|                                     | (692,407) | (1,510,556)          |
| Cost of goods sold                  | (479,861) | (995,192)            |
| Selling expenses                    | (152,813) | (433,424)            |
| General and administrative expenses | (34,180)  | (54,029)             |
| Other expenses, net                 | (25,553)  | (27,911)             |
| Total                               | (692,407) | (1,510,556)          |

As mentioned in note 18, the decrease in costs in 2015 reflects the lower volume produced and sold.

FS-33

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## 20. FINANCIAL RESULTS

|  | 2015      | 2014      |
|--|-----------|-----------|
| Interest expenses:                           |           |           |
| Related parties                              | (7,254)   | (23,809)  |
| Interest and fines – REFIS                   | -         | (1,234)   |
| Tax on financial transactions <sup>(1)</sup> | (21,847)  | (21)      |
| Other interest expenses                      | (13,175)  | (12,478)  |
|  | (42,076)  | (37,542)  |
| Interest income:                             |           |           |
| Related parties                              | 1,349     | 1,052,240 |
| Dividends                                    | 6,146     | 21,102    |
| Reversal of interest and fines - REFIS       | -         | 1,043     |
| Interest on short-term investments           | 44,190    | 76,509    |
| Other finance income                         | 260       | 2,235     |
|  | 51,945    | 1,153,129 |
| Financial income, net                        | 9,669     | 1,115,587 |
| Exchange rate differences:                   |           |           |
| Gains:                                       |           |           |
| Related parties                              | 24,141    | 12,092    |
| Third parties <sup>(2)</sup>                 | 1,941,621 | 587,334   |
| Losses:                                      |           |           |
| Related parties                              | (104,847) | (62,504)  |
| Third parties                                | (35,471)  | (97)      |
| Exchange rate gains, net                     | 1,825,444 | 536,825   |
| Monetary rate losses, net                    | (489)     | (521)     |
| Exchange and monetary gains (losses), net    | 1,824,955 | 536,304   |

(1) Financial transaction tax (IOF) on remittance of dividends paid by subsidiary Namisa International.

(2) Mainly exchange variation on short-term investments in US dollars ( time deposit )

## 21. POSTEMPLOYMENT BENEFITS – PRIVATE PENSION FUND PROGRAM

The Company sponsors a pension plan created in 2012, managed by a private pension fund (CBSPREV Namisa), which grants to employees defined contribution plan and defined risk benefit plan (sickness allowance, disability retirement pensions, and survivors' pensions), funded by the sponsor (50%) and by the employees (50%).





Nacional Minérios S.A.

22. TAX RECOVERY PROGRAM (REFIS)

The accounting balance presented as non-current liabilities as of November 30, 2015 includes other taxes payables other than REFIS program and totalized R\$75,665 (R\$73,828 as of December 31, 2014).

FS-35

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## 23. FINANCIAL INSTRUMENTS

## a) Identification and measurement of financial instruments

The Company's financial instruments consist of short-term investments, trade receivables, trade payables, and loans and financing. The Company does not use derivative financial instruments, such as currency swaps or interest swaps.

The amounts are recognized in the financial statements at their amortized cost and are substantially similar to those that would be obtained if they were traded in the market. The fair values of other long-term assets and liabilities do not differ significantly from their carrying amounts.

## b) Classification of financial instruments

|                         | 2015                     |  | 2014                     |   |
|-------------------------|--------------------------|--|--------------------------|---|
|                         | Loans and<br>receivables | Other liabilities<br>at amortized cost | Loans and<br>receivables | Other<br>liabilities at<br>amortized cost |
| <u>Assets</u>           |                          |  |                          |   |
| Current:                |                          |  |                          |   |
| Cash equivalents        | 533,770                  | -                                      | 5,499,139                | -   |
| Trade receivables       | 721,059                  | -                                      | 126,726                  | -   |
| Advances to suppliers   | 115,693                  | -                                      | 250,469                  | -   |
| Loans and receivables   | 162,544                  | -                                      | 61,026                   | -   |
| Noncurrent:             |                          |  |                          |   |
| Advances to suppliers   | 9,310,901                | -                                      | 9,236,170                | -   |
| Loans and receivables   | -                        | -                                      | -                        | -   |
| <u>Liabilities</u>      |                          |  |                          |   |
| Current:                |                          |  |                          |   |
| Loans and financing     | -                        | 4,680                                  | -                        | 368,818                                   |
| Trade payables          | -                        | 573,218                                | -                        | 51,772                                    |
| Dividends               | -                        | 1,156,800                              | -                        | 55,764                                    |
| Advances from customers | -                        | -                                      | -                        | 8,912                                     |
| Noncurrent:             |                          |  |                          |   |
| Loans and financing     | -                        | 25,307                                 | -                        | 29,541                                    |

## c) Financial risk management policy

The Company has and follows a risk management policy, containing guidelines regarding the incurred risks. Pursuant to this policy, the nature and general position of financial risks are monitored and managed on a regular basis to assess the results and the financial impact on cash flow. The credit limits are also reviewed on a periodic basis.

FS-36

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## Nacional Minérios S.A.

The risk management policy was set by the Board of Directors. Under this policy, the market risks are hedged to maintain the corporate strategy or the financial flexibility level.

## d) Liquidity risk

The liquidity risk is the risk that the Company may not have sufficient funds to honor its financial commitments as a result of mismatching of terms or volumes between expected amounts collectible and payable.

To manage cash liquidity both in domestic and foreign currencies, future disbursements and cash inflow assumptions are established and daily monitored by the treasury department.

The table below shows the contractual maturities of financial assets and liabilities, including the payment estimate:

|                                | Less than one<br>year | From one to two<br>years | From two to five<br>years | Over five years |
|--------------------------------|-----------------------|--------------------------|---------------------------|-----------------|
| <u>As of December 31, 2015</u> |                       |                          |                           |                 |
| Loans and financing            | 4,680                 | 9,237                    | 15,715                    | 355             |
| Trade payables                 | 573,218               | -                        | -                         | -               |
| -                              |                       |                          |                           |                 |
|                                | Less than one<br>year | From one to two<br>years | From two to five<br>years | Over five years |
| <u>As of December 31, 2014</u> |                       |                          |                           |                 |
| Loans and financing            | 368,818               | 9,237                    | 18,429                    | 1,875           |
| Trade payables                 | 51,773                | -                        | -                         | -               |

## e) Foreign exchange risk

The Company assesses its foreign exchange exposure by deducting its liabilities from its US dollar-denominated assets to obtain its net foreign exchange exposure, which is actually the foreign exchange exposure risk, and also takes into consideration the maturity of the related assets and liabilities subject to exchange fluctuation. Basically, the Company's financial instruments exposed to foreign exchange risk originate from exports and the investments abroad.

The consolidated net exposure as of November 30, 2015 is as follows:

|                                  | 2015<br>(amounts in<br>US\$'000) |
|----------------------------------|----------------------------------|
| Cash and cash equivalents abroad | 99,205                           |
| Trade receivables                | 138,690                          |
| Receivables from related parties | 36,437                           |
| Total assets                     | 274,332                          |
| Borrowings and financing         | -                                |

|                                |         |
|--------------------------------|---------|
| Trade payables                 | 184,409 |
| Taxes payables                 | 81,031  |
| Other liabilities              | 18,877  |
| Total liabilities              | 284,317 |
| Foreign exchange exposure, net | (9,985) |

FS-37

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Gains and losses on these transactions are consistent with the policies and strategies set by Management.

- Sensitivity analysis

We estimated the adjustments in four scenarios for the consolidated foreign exchange transactions exposed to US dollar fluctuation, using the exchange rate at November 30, 2015 of R\$3.8506 per US\$1.00, as follows:

- Scenario 1: (50% real depreciation) R\$/US\$ parity of 5.7759.
- Scenario 2: (25% real depreciation) R\$/US\$ parity of 4.8133.
- Scenario 3: (25% real appreciation) R\$/US\$ parity of 2.8880.
- Scenario 4: (50% real appreciation) R\$/US\$ parity of 1.9253.

| Risk                             | US\$ benchmark        | 2015                                 |            |            |            |           |
|----------------------------------|-----------------------|--------------------------------------|------------|------------|------------|-----------|
|                                  |                       | Impacts estimated in Brazilian Reais |            |            |            |           |
|                                  |                       | Scenario 1                           | Scenario 2 | Scenario 3 | Scenario 4 |           |
| Exchange rate                    | 3.8506                | 5.7759                               | 4.8133     | 2.8880     | 1.9253     |           |
| <b>Assets:</b>                   |                       |                                      |            |            |            |           |
| Cash and cash equivalents        | US dollar fluctuation | 99,205                               | 190,999    | 95,500     | (95,500)   | (190,999) |
| Trade receivables                | US dollar fluctuation | 138,690                              | 267,020    | 133,510    | (133,510)  | (267,020) |
| Receivables from related parties | US dollar fluctuation | 36,437                               | 70,152     | 35,076     | (35,076)   | (70,152)  |
|                                  |                       | 274,332                              | 528,171    | 264,086    | (264,086)  | (528,171) |
| <b>Liabilities:</b>              |                       |                                      |            |            |            |           |
| Loans and financing              | US dollar fluctuation | -                                    | -          | -          | -          | -         |
| Trade payables                   | US dollar fluctuation | 184,408                              | 355,041    | 177,520    | (177,520)  | (355,041) |
| Taxes payables                   | US dollar fluctuation | 81,031                               | 156,009    | 78,005     | (78,005)   | (156,009) |
| Advances from customers          | US dollar fluctuation | -                                    | -          | -          | -          | -         |
| Other liabilities                | US dollar fluctuation | 18,877                               | 36,344     | 18,172     | (18,172)   | (36,344)  |

|            |         |          |         |           |           |
|------------|---------|----------|---------|-----------|-----------|
|            | 284,316 | 547,394  | 273,697 | (273,697) | (547,394) |
| Net effect | (9,984) | (19,223) | (9,611) | 9,611     | 19,223    |

f) Interest rate risk

The Company did not identify any material floating interest rate and inflation index risk to its long-term liabilities.

FS-38

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Nacional Minérios S.A.

g) Credit risks

The exposure to the credit risks of financial institutions follows the parameters set out in the financial policy. The Company adopts the procedure of analyzing in detail the financial position of its customers and suppliers, defining a credit limit and constantly monitoring its outstanding balance.

By analyzing the geographical distribution of the exports, we can see a strong concentration of sales in Asia. This is due to the fact that China maintains a strong demand for iron ore and the fact that the shareholders are major steel mills located in Japan and Korea, with which the Company has long-term agreements.

Carrying out most of the sales against the presentation of credit letters and based on customer assessments, as well as the diversification of receivables and the control over sales financing are the usual procedures that the Company adopts to minimize possible credit risks of its business partners. On November 30, 2015, sales to customers that individually account for more than 10% of sales revenue totaled 64%.

As for short-term investments, the Company only makes investments in institutions with low credit risk awarded by rating agencies.

h) Capital management

The Company manages its capital structure for the purpose of safeguarding its ability to continue as a going concern, in order to provide returns for shareholders and benefits for other stakeholders, while maintaining an optimal capital structure to reduce this cost.

## 24. INSURANCE

Due to the nature of its operations, the Company renewed with a local insurer, for the period from September 30, 2015 to September 30, 2016, the coverage of named perils for the following locations: (a) mine, BR 040, km 602, Ouro Preto, MG; (b) mine, Inconfidentes Highway, km 40, no number, Itabirito, MG; (c) office, Rua Iguatemi, 192, 25º andar, Itaim, SP, with coverage of property damages against fire/lightening/any type of explosion, and loss of profits resulting from fire/lightening/any type of explosion, in the total risk amount of R\$728,691 (property damages and loss of profits), and indemnity ceilings, in case of accidents, of R\$50,000 (fire), and R\$122,000 (loss of profits).

The risk assumptions adopted, in view of their nature, are not part of the scope of an audit of the financial statements and, therefore, were not audited by our independent auditors.

FS-39

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## 25. ADDITIONAL INFORMATION TO CASH FLOWS

In 2015, the Company incorporated the subsidiary CSN Handel GmbH and realized the partial split of Fernandinho, Cayman and Pedras Pretas assets into Mineração Nacional S.A. Part of the net assets, shown in the following table, is not included in the statement of cash flows:

|                               | <b>Fernandinho,<br/>Cayman and<br/>Pedras Pretas<br/>assets<br/>Nov 30, 2015</b> | <b>CSN Handel<br/>GmbH<br/>Nov 30, 2015</b> |
|-------------------------------|--|---|
| Cash and cash equivalents     | -  | 77.583                                      |
| Trade receivables             | -  | 467.842                                     |
| Inventories                   | 23.586   |   |
| Recoverable taxes             | 109  | 15.038                                      |
| Loan and receivables          | -  | 139.584                                     |
| Deferred taxes                | 1.364  | -   |
| Non-current recoverable taxes | 5.111  | -   |
| Property, plant and equipment | 39.285   | -   |
| Suppliers                     | (201)  | (548.396)                                   |
| Taxes payable                 | -  | (15.033)                                    |
| Asset retirement obligation   | (8.694)  | -   |
| Other payables                | -  | (64.898)                                    |
| <b>Net assets</b>             | <b>60.560</b>  | <b>71.720</b>                               |

In addition, the Company acquired in 2015 some trucks with recoverable tax (ICMS credits) in the amount of R\$7,154.

## 26. APPROVAL OF THE FINANCIAL STATEMENTS

These consolidated financial statements were authorized for issuance on April 28, 2016.

FS-40