

Vale S.A.  
Form 6-K  
May 08, 2014  
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**United States**  
**Securities and Exchange Commission**

Washington, D.C. 20549

**FORM 6-K**

**Report of Foreign Private Issuer**

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

**of the**

**Securities Exchange Act of 1934**

**For the month of**

**May 2014**

**Vale S.A.**

**Avenida Graça Aranha, No. 26  
20030-900 Rio de Janeiro, RJ, Brazil**

(Address of principal executive office)

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

(Check One) Form 20-F  Form 40-F

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1))

(Check One) Yes  No

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7))

(Check One) Yes  No

(Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.)

(Check One) Yes  No

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

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<b>Does it have auditor?</b>	YES
<b>CVM (Securities Commission) Code</b>	287-9
<b>Type of Auditor</b>	Domestic
<b>Name/Corporate name</b>	PricewaterhouseCoopers Auditores Independentes
<b>CPF/CNPJ</b>	61.562.112/0002-01
<b>Service start date:</b>	07/24/2009
<b>Service end date:</b>	
<b>Description of the service contracted</b>	Provision of professional services for auditing the annual report from the Company and controlled companies, both for domestic and international purposes, comfort letters for issuance of debts and equities at the Brazilian and international market, certification of internal controls in order to comply with Section 404 of Sarbanes-Oxley Act of 2002; provision of services related to the audit.
<b>Total amount of the remuneration of independent auditors itemized per service</b>	In the fiscal year ended December 31, 2013, the fees received by Company independent auditors for the provision of services to the Company and its affiliates were the following:

	<b>Reais (thousand):</b>
Financial audit:	18,069
Sarbanes-Oxley Act Audit:	3,181
Audit-related services(*):	782
<b>Total independent audit expenses:</b>	<b>22,032</b>
Other (*)	16
<b>Total of services</b>	<b>22,048</b>

**Justification for replacement Reason submitted by the auditor in case of disagreement of the issuer justification**

(\* ) These services are retained mostly for periods shorter than one year  
Not applicable  
Not applicable

<b>Name of the supervisor responsible</b>	<b>Period of provision of service</b>	<b>CPF</b>	<b>Address</b>
João César de Oliveira Lima Junior	06/01/2012	744.808.477-15	Avenida José da Silva de Azevedo Neto nº 200 Bloco 3 - Torre Evolution IV rooms 101, 103 to 108 and 201 to 208, Barra da Tijuca, City and State do Rio de Janeiro-RJ, CEP 22075-556. e-mail: joao.c.lima@br.pwc.com

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Phone: (21) 3232-6112

Marcos Donizete Panassol

07/24/2009 to 05/31/2012

063.702.238-67

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Azevedo Neto, no. 200, bloco 3,

Torre Evolution IV, salas 101,

103 a 108 e 201 a 208, Barra da

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**2.3 Other relevant information**

At the meeting of November 28, 2013, the Board of Directors of Vale approved hiring the company KPMG Auditores Independentes to provide auditing services for the Company's financial statements for 3 (three) years starting in fiscal year 2014. Services will start with the review of 2014 second quarter information (ITRs).

The Company has specific internal procedures for pre-approval of engagements for their external auditors in order to avoid conflict of interest or loss of objectivity by its independent auditors.

The Company's policies regarding independent auditors and other services unrelated to external auditing are grounded in principles that safeguard their independence. In line with best corporate governance practices, all services provided by the independent auditors are pre-approved by our Supervisory Board, and the independent auditor provide us with an independence letter.

Table of Contents**3.1 Consolidated Financial Information**

(Reais)	Fiscal Year (12/31/2013)	Fiscal Year (12/31/2012)	Fiscal year (12/31/2011)
Shareholders equity	152,122,066,000.00,	152,909,437,000.00,	145,383,333,000.00,
Total Assets	291,880,311,000.00,	266,921,654,000.00,	237,088,552,000.00,
Realized Net Revenue/Temporary Revenue/Insurance Premium	101,489,747,000.00,	91,269,482,000.00,	100,555,680,000.00,
Gross Profit	48,979,108,000.00,	41,514,098,000.00,	59,568,000.000.00,
Net Profit	115,091,000.00,	9,891,696,000.00,	37,825,725,000.00,
Number of Shares, excluding treasury	5,135,374,926	5,135,374,926	5,097,293,079
Asset Value of Share (in R\$/unit)	29.622387	29.570000	28.780000
Earnings per Share	0.02000	1.960000	7.240000

**3.2 Non-Accounting measurements****a. value of non-accounting measurements**

The Company uses EBITDA as a non-accounting measurement. In 2013, 2012 and 2011, respectively, the EBITDA of the Company was established in the amount of R\$ 42,386,462, R\$ 23,164,519 thousand and R\$ 58,694,349 thousand respectively.

**b. reconciliations between amounts reported and the values of audited financial statements**

In R\$ thousands	Year ending on December 31		
	2013	2012	2011
<b>Operating profit - EBIT</b>	<b>33,433,113</b>	<b>15,035,091</b>	<b>52,241,615</b>
Depreciation / Amortization of goodwill	8,953,349	8,129,428	6,452,734
<b>EBITDA (LAJIDA)</b>	<b>42,386,462</b>	<b>23,164,519</b>	<b>58,694,349</b>
Corporate income	(998,830)	(1,240,589)	(1,857,458)
Dividends received	1,836,406	931,620	1,765,736
Loss (gains) from the sale of assets	410,314	1,036,035	(2,492,175)
Loss in calculation and reduction of asset impairment	5,389,114	12,213,468	
CFEM Provisions		1,100,000	
<b>Net gain (loss) from discontinued operations</b>	<b>3,602</b>	<b>132,100</b>	<b>138,584</b>
<b>EBITDA (LAJIDA) - adjusted</b>	<b>49,027,068</b>	<b>37,337,418</b>	<b>56,249,036</b>
Depreciation / Amortization of goodwill	(8,953,349)	(8,129,428)	(6,452,734)
Dividends received	(1,836,406)	(931,920)	(1,765,736)
Reduction in recoverable value of investments	(4,001,986)		
Corporate results	998,830	1,240,589	1,857,458
Loss (gains) in the sale of assets	(410,314)	(1,036,000)	2,492,175
Loss in calculation and reduction of asset impairment	(5,389,114)	(12,213,468)	
Net financial income	(18,443,232)	(8,239,107)	(6,317,528)
Income tax and social contribution	(15,247,845)	2,594,950	(8,504,230)



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<b>Net gain (loss) from discontinued operations</b>	<b>(3602)</b>	<b>(132,300)</b>	<b>(138,584)</b>
<b>Net income/year</b>	<b>(257,964)</b>	<b>9,390,934</b>	<b>37,419,857</b>
<b>Loss (profit) to non-controlling shareholders</b>	<b>373,055</b>	<b>500,762</b>	<b>405,868</b>
<b>Profit to controlling shareholders</b>	<b>115,091</b>	<b>9,891,696</b>	<b>37,825,725</b>

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**c. why the Company believes that this measurement is more appropriate for a correct understanding of its financial situation and results of operations**

EBITDA is a measure of the company's cash generation, aiming to assist the assessment by the Administration of the performance of operations. The analysis of operating results through EBITDA has the benefit of canceling the effect of non-operating gains or losses generated by financial transactions or the effect of taxes.

We calculate the EBITDA according to the terms set forth in CMV Instruction no. 527, from October 4, 2012 (CVM Instruction 527), as follows: the company's net results, plus the taxes over the profit, of the net financial expenses, of financial revenues, and of depreciation, amortization, and exhaustion.

We also calculate the adjusted EBITDA according to the net EBITDA from the corporate interest, from reduction in the recoverable asset of values, from non-recurrent items, and from depreciations, amortizations and exhaustions, plus dividends from joint ventures and sister companies. We understand that the adjusted EBITDA has a more precise measure of cash generation in the Company, since it excludes non-recurring and non-cash effects.

The consolidated cash generation measured by EBITDA and Adjusted EBITDA is not a measure recognized by BR GAAP or IFRS and does not represent cash flow for the periods presented and therefore should not be considered as an alternative to net income (loss), as an isolated indicator of operating performance or as an alternative to cash flow or as a source of liquidity. The EBITDA definition used by Vale may not be comparable with EBITDA disclosed by other companies, should they not adopt the standard meaning for EBITDA determined by CVM Instruction 527.

**3.3 Events subsequent to the latest financial statements**

The Company does not provide guidance in the form of quantitative predictions about its future financial performance. The Company seeks to disseminate as much information about its vision of the various markets where it operates, guidelines, and implementation strategies in order to provide investors in the capital markets a basis for the formation of expectations about its performance in the medium and long term.

The Company Consolidated Financial Statements for the year ended December 31, 2013 were issued on February 26, 2014 and filed with the CVM on the same date.

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Below is a description of subsequent events included in the Financial Statements in compliance with the rules in IAS 24, approved by CVM<sup>o</sup> 593/09:

- On January 15, 2014, Vale issued infrastructure debentures in the amount of R\$ 1 billion. For further information on this issuing, see item 18.5 in the Reference Form; and
- On January 30, 2014, Vale acquired a funding in the amount of R\$1,816 million from the Canadian agency EDC. To this date, the funding has not been realized yet.

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	<b>Fiscal Year Ended December 31</b>		
	<b>2013</b>	<b>2012</b>	<b>2011</b>
a. Rules on retention of profits	According to Article 43 of the Bylaws, there should be a consideration in the proposal for distribution of profits of the formation of (i) fiscal benefit reserve, to be constituted in the form of current legislation, and (ii) investment reserve for the purpose of ensuring the maintenance and development of activities that constitute the main object of the Company, in an amount not exceeding 50% (fifty percent) of net income distributable up to the maximum capital of the Company.		
b. Values on retention of profits	Of the total of R\$ 115,090,671.19, added with accrued gains from the adoption of new accounting principles issued by the Comissão de Valores Mobiliários (CVM) and the Comitê de Pronunciamentos Contábeis (CPC), in the amount of R\$ 14,627,000.00, the distribution was (i) R\$ 6,485,883.56 to legal reserve and (ii) R\$ 24,161,826.66 (21%) to fiscal benefit reserves.	Of the total of R\$9,733,695,883.37, the distribution was (i) R\$486,684,794.17 to legal reserves and (ii) R\$599,031,296.74 (6.2%) to fiscal incentive reserves. (1) (1) Values above were approved by the General Shareholders Meeting held on April 17, 2013. However, we clarify that, due to adjustments to the IFRS, the net profit was adjusted to R\$ 9,891,696 thousand.	Of the total of R\$ 37,813,724,944.02 after the deduction for the legal reserve in the amount of R\$ 890,686,247.20, the amount of R\$ 25,864,330,899.53 (68.4%), which was allotted for the expansion / investment reserve and R\$ 995,844,040.58 (2.6%) for tax incentive reserves. Of the total for the expansion / investment reserve, 50% was allotted based on statutory authorization and 18.4% was allotted for the reserve based on the capital budget approved by the AGM. (1)
			(1) Values above were approved by the General Shareholders Meeting held on April 17, 2013. However, we clarify that, due to adjustments to the IFRS, the net profit was adjusted to R\$ 37,825,725 thousand.
c. Arrangements for distribution of dividends	According to Article 44 of the bylaws, at least 25% (twenty five percent) of annual net profits, adjusted according to the law, will be provided for the payment of dividends.		

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Pursuant to Art. 5, §5 of the bylaws, the holders of preferred shares of Class A and special class, shall have their right to participate in the dividend to be distributed and calculated as per Chapter VII of the Bylaws, according to the following criterion:

(a) Priority in the reception of dividends corresponding to (i) 3% (three per cent) at least of the net asset value of the share, calculated based on the financial statements analyzed that served as reference for the payment of dividends or (ii) 6% (six per cent) calculated on the part of the capital to which that class of share belongs, whichever is the greatest of these.

(b) Right to participate in the distributed incomes, under equal conditions with common shares, after them, guaranteeing a dividend equal to the priority minimum set up pursuant to a above.

d. Frequency of dividend distribution In accordance with the Dividend Policy adopted by the Company, payments are made semiannually in the months of April and October.

e. Eventual restrictions to dividend distribution none none none

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(Reais)	Fiscal Year Ended December 31, 2013	Fiscal Year Ended December 31, 2012	Fiscal Year Ended December 31, 2011
<b>Adjusted net income for dividend payments</b>	99,069,960.97	8,647,979,792.46	34,927,194,656.24
<b>Percentage of dividend over the adjusted net profit</b>	100.00	100.000000	26.000000
<b>Rate of return in relation to equity</b>	0.10000	6.000000	26.000000
<b>Dividend distributed</b>	9,319,275,000.00	8,647,979,792.46	9,062,863,757.00
<b>Net income retained</b>	24,161,826.66	599,031,296.74	0.00
Date of approval of the retention	04/17/2014	04/17/2013	

**01/01/2013 to 12/31/2013**

Share Type	Share Class	Distributed Dividend	Amount (Unit)	Dividend Payment
Common		Interest on Capital	2,263,206,859.28	04/30/2013
Preferred	Preferred Class A	Interest on Capital	1,397,943,140.72	04/30/2013
Common		Mandatory Dividend	489,342,023.63	04/30/2013
Preferred	Preferred Class A	Mandatory Dividend	302,257,976.37	04/30/2013
Common		Interest on Capital	2,624,124,419.28	10/31/2013
Preferred	Preferred Class A	Interest on Capital	1,620,875,580.72	10/31/2013
Common		Mandatory Dividend	384,207,050.57	10/31/2013
Preferred	Preferred Class A	Mandatory Dividend	237,317,949.43	10/31/2013

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Share Type	Share Class	Distributed Dividend	Amount (Unit)	Dividend Payment
Common		Interest on Capital	2.035.913.849,00	30/04/2012
Preferred	Preferred Class A	Interest on Capital	1.237.985.533,00	30/04/2012
Common		Interest on Capital	1.675.236.084,00	31/10/2012
Preferred	Preferred Class A	Interest on Capital	1.034.763.916,00	31/10/2012
Common		Mandatory Dividend	1.646.850.049,47	31/10/2012
Preferred	Preferred Class A	Mandatory Dividend	1.017.230.360,99	31/10/2012

**01/01/2011 to 12/31/2011**

Share Type	Share Class	Distributed Dividend	Amount (Unit)	Dividend Payment
Common		Mandatory Dividend	1,239,392,442.00	10/31/2011
Common		Mandatory Dividend	2,996,720,323.00	08/28/2011
Common		Interest on Capital	1,372,512,161.00	04/30/2012
Preferred	Preferred Class A	Mandatory Dividend	761,470,697.00	10/31/2011
Preferred	Preferred Class A	Mandatory Dividend	1,858,179,678.00	08/26/2011
Preferred	Preferred Class A	Interest on Capital	834,588,457.00	04/30/2012

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**3.6 Statement of Dividends on account of retained earnings or reserves**

Dividends distributed to (in R\$ thousands):	Fiscal Year Ended December 31		
	2013	2012	2011
Retained Earnings			
Constituted Reserves	9,220,205	740,520	



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3.7 Debt

Fiscal year	Total amount of the debt (of any nature)	Type of index	Debt Index	Description and reason for the use of another index of indebtedness
12/31/2013	139,760,000,000.00	Debt ratio	0.919	
12/31/2013	0	Other indexes	1.226	<p>Gross adjusted debt/EBITDA. Gross debt is the sum of Loans and short-term debt, Portion of the stock of long-term loans and Loans and long-term financing. adjusted EBITDA (EBITDA) is calculated as described in section 3.2.b of this reference form, excluding non-recurrent items. For more information on how to reconcile the EBIDTA and the adjusted EBIDTA, see item 10.1 (a).</p> <p>The debt ratio Gross Debt / Adjusted EBITDA shows the approximate time necessary for a company to pay all its debt with its cash flow.</p> <p>The Company adopts the debt ratio gross debt / Adjusted EBITDA and interest coverage ratio Adjusted EBITDA / Interest expenses. These indexes are widely used by the market (rating agencies and financial institutions) and serve as a benchmark to assess the financial situation of the Company.</p>
12/31/2013	0	Other indices	17.096	<p>Adjusted EBITDA / Interest expenses The adjusted EBIDTA is calculated as described in item 3.2.b of this Reference form, excluding non-recurrent items. For more information on how to reconcile the EBIDTA and the adjusted EBIDTA, see item 10.1 (a). Interest expenses include the sum of all appropriated or adjusted interests, paid or not, at certain times, that result from benefits debt.</p> <p>The interest coverage index (Adjusted EBITDA / Interest Expenses) is used to determine a company's cash flow capacity to comply with its debt payments</p> <p>The Company adopts the Gross debt/ adjusted EBIDTA debt rate and the adjusted EBIDTA/interest expenses interest coverage rate. These indices are widely used by the market (rating agencies and financial institutions) and they are a baseline to which to compare Vale's</p>



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Type of debt	Less than 1 year (R\$)	Between 1 and 3 years (R\$)	Between 3 and 5 years (R\$)	Over 5 years (R\$)	Total (R\$)
<b>Collateral</b>	357,000,105.43	658,143,405.44	658,143,405.44	1,736,283,187.49	3,409,570,103.80
<b>Floating</b>					
<b>Guarantee</b>					
<b>Unsecured obligations</b>	22,160,999,894.5	6,899,147,638.69	14,417,682,183.66	92,872,600,179.28	136,350,429,896.20
<b>Total</b>	22,518,000,000.00	7,557,291,044.13	15,075,825,589.10	94,608,883,366.77	139,760,000,000.00

**Note:** Information in this item refers to the Company's consolidated financial results shown in items 3.7 and 3.8 does not represent the Company's level of indebtedness, but represents the total of the obligations based on the addition of the outstanding and non-outstanding liabilities. The collateral debt amount is guaranteed with real assets. The remaining debt does not have any collateral. Debts that lack collateral or floating guarantees, whether or not they have personal guarantees, have been classified as unsecured obligations.

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**3.9 Other information that the Company deems relevant**

The Company's main financial contracts, as well as the securities representing the circulating debt issued by the Company (for more information on such securities, see item 18.5 of this Reference Form) have clauses specifying advances maturity of pending amounts for the event of cross acceleration from other financial contract signed with the same party and/or other financial contracts.

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**4.1 - Description of risk factors**

**Risks relating to the Company**

*The mining sector is highly exposed to the cyclicity of global economic activities and requires significant capital investments.*

The mining sector is primarily a supplier of industrial raw material. Industrial production tends to be the most cyclical and volatile component of global economic activities, affecting the demand for minerals and metals. At the same time, investment in mining requires a substantial amount of resources, in order to replenish and maintain the reserves, expand the production capacity, build infrastructure and preserve the environment. The sensitivity to the industrial production, along with the need for significant long-term capital investments, are important sources of risks to the financial performance and growth prospects of Vale and the mining industry in general.

*The Company may not be able to adjust the volume of production in time or cost-effectively in response to changes in demand.*

In periods of high demand, Vale's capacity to rapidly increase production is limited, which may make it impossible to meet the demand for its products. Moreover, the Company may be unable to complete expansions and new Greenfield projects in time to take advantage of the increasing demand for iron ore, nickel and other products. When demand exceeds its production capacity, the Company may meet its customers excess demand by purchasing iron ore, iron ore pellets or nickel from its joint ventures or third parties and resell them, which would increase its costs and reduce its operating margins. If it is unable to meet its customers' excess demand this way, Vale could lose customers. In addition, operating close to full capacity may expose the Company to higher costs, including demurrage fees due to capacity restraints in its logistics systems.

In contrast, operating at significant idle capacity in periods of weak demand may expose Vale to higher unit production costs since a significant portion of its cost structure is fixed in the short-term due to the intensive need of capital by mining operations. In addition, efforts to reduce costs during periods of weak demand may be limited by previous rules and labor and federal agreements.

*Concessions, authorizations, licenses and permits are subject to expiration, restriction or renewal and to various other risks and uncertainties.*

Vale's operations depend on the granting of authorization and concessions by regulatory organizations from the government of countries where Vale works. The Company is subject to the laws and regulations of several jurisdictions, which can change at a moment's notice. Such

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changes may require changes in Vale's technologies and operations, resulting in unexpected capital expenses.

Some of Vale's mining concessions are subject to fixed expiration dates and can only be renewed for a limited number of times, and for limited periods. In addition to mining concessions, Company may obtain various authorizations, licenses and permits from government and regulatory agencies regarding the planning, maintenance, and operation of the Company's mines, as well as its logistics infrastructure, which may be subject to fixed due dates or to periodic reviews or renewals. Although the Company expects renewals to be granted when and as requested, there is no guarantee that such renewals will be granted as usual, as well as there is no guarantee that new conditions will not be imposed in this regard. Fees due by mining concessions may substantially increase over time in comparison with the original issuance of each operating license. If that is the case, the Company's business objectives can be affected by the costs of maintenance or renewal of its mining concessions. Thus, it is necessary to continually assess the mineral potential of each mining concession, especially at the time of renewal, in order to determine if maintenance costs of mining concessions are justified by the results of future operations, and thus be able to let some concessions expire. There are no guarantees that such concessions will be granted under terms favorable to the Company, as well as there are no guarantees as to estimate future mining activities or operation goals.

In many jurisdictions where the Company has exploration projects, it may be required to return to the Government a certain portion of the area covered by the operating license as a condition for renewing license or obtaining a mining concession. This retrocession obligation may lead to a substantial loss of part of the mineral deposit originally identified in its feasibility studies. For more information on mining concessions and similar rights, see [Regulatory Issues](#).

*The Company's projects are subject to risks that may result in increased costs or delay in their implementation.*

The Company is investing to maintain and increase its production and logistics capacity, as well as to expand the portfolio of minerals produced. Vale regularly analyses the economic viability of its projects. As a result of this analysis, the Company may decide to postpone, stay, or interrupt the execution of some of them. Its projects are subject to various risks that may adversely affect its growth and profitability prospects, including:

- It may have to deal with delays or costs higher than expected in order to obtain the necessary equipment or services and to implement new technologies to build and operate a project.
- Its efforts to develop projects according to the schedule may be hampered by the lack of infrastructure, including reliable telecommunication services and power supply.
- Suppliers and other corporate contractors may not comply with their contractual obligations to the Company.
- The Company may experience unexpected weather conditions or other force majeure events.

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- The Company may fail to obtain, experience delays or have higher than expected costs in obtaining the necessary permits and licenses for building a project.
- Changes in market conditions or legislation may make the project less profitable than expected at the time its operation begins.

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- There may be accidents or incidents during project implementation.
- It may be difficult to find appropriate skilled professionals.

*Operational problems may materially and negatively affect the Company's business and financial performance.*

An inefficient project management and operational incidents may lead to the suspension or reduction of the Company's operations, causing an overall decrease of productivity. Operational incidents may result in important failures in essential plant and machinery. There are no guarantees that project management will be efficient or that other operational problems will not occur. Any damage to the Company's projects or delays in its operations caused by inefficient project management or operational incidents may materially and negatively affect its business and operating results.

The Company's business is subject to various operational risks that can adversely affect the results of its operations, such as:

- Unexpected weather conditions or other force majeure events may occur.
- Adverse mining conditions may delay or hinder its ability to produce the expected amount of minerals and to meet the specifications required by customers, which may lead to price reductions.
- There may be accidents or incidents during the business operations, involving its mines, and related infrastructure, plants, railways, ports and vessels.
- Delays or disruptions in the transportation of its products, including railways, ports and vessels.
- Some of its projects are located in regions where tropical diseases, AIDS and other communicable diseases represent a major public health issue and pose risks to the health and safety of its employees.
- Labor disputes may disrupt its operations from time to time.



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- Changes in the market or legislation may affect the economic perspectives of an operation making it incompatible with the Company's business strategy.

*The Company's business may be negatively affected if its counterparties fail to meet their obligations.*

Customers, suppliers, corporate contractors and other counterparties may not perform the contracts and obligations assumed before the Company, which may have an adverse impact on the Company's operations and financial results. The ability of its suppliers and customers to meet their obligations may be adversely affected in times of financial stress or economic recession. Suppliers are also subject to capacity constraints in times of high demand, which may affect their ability to meet their obligations to Vale.

The Company currently operates and has projects related to significant parts of its pelletizing, bauxite, nickel, coal, copper and steel businesses through joint ventures with other companies. Important parts of its investments in power and its oil and gas projects are operated through consortia. Its forecasts and plans

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for these joint ventures and consortia assume that its partners will observe their obligations to make capital contributions, purchase products, management, and, in some cases, provide skilled and competent personnel. If any of its partners fails to observe its commitments, the affected joint venture or consortium may not be able to operate in accordance with its business plans, or the Company may have to increase the level of its investment to implement these plans.

Additionally, some of the Company assets can be controlled and managed by partners in joint ventures that may not comply fully with Company procedures, including health, safety, environment, and common rules. Failure, by any of the Company partners, to adopt any rules, controls or procedures equivalent to Company rules, controls and procedures may increase costs, reduce production or cause environmental, health or security incidents or accidents, which could adversely affect Company results and reputation.

*The Company's business is subject to environmental, health and safety incidents or accidents.*

The Company has operations involving the use, handling, storage, elimination and disposal of hazardous materials into the environment and the use of natural resources. Besides, the mining sector is generally subject to significant risks and hazards, including the imminent risk of fire or explosion, toxic gas leak, leak of pollutants or other hazardous materials, incidents involving rock slides in underground mining operations, incidents involving mobile equipment or machinery, etc. These situations may be caused by accidents or violation of operational standards, resulting in a significant incident, including damage or destruction of mineral assets or production facilities, injury or death of employees, damages to the environment, production delays, financial losses and possible legal liabilities. The Company has rules on health and safety, environment and risk management systems and processes in place to minimize the risk of such incidents or accidents. Despite our rules, policies and controls, our operations remain subject to incidents or accidents that may adversely affect our business or reputation.

*Natural disasters can cause serious damages to the Company's operations and projects in countries where it operates and/or may have a negative impact on its sales to countries adversely affected by such disasters.*

Natural disasters such as windstorms, droughts, floods, earthquakes and tsunamis can adversely affect the Company's operations and projects in countries where it operates, as well as possibly generating a reduction in sales to countries negatively affected which include shortage in power supply and destruction of industrial infrastructure facilities. Furthermore, although the physical impacts of climate change on its businesses still are highly uncertain, the Company may experience changes in rainfall patterns, water shortages, rising sea levels, increased intensity of storms and floods as a result of climate change, which can adversely affect its operations. In the past few years, at specific occasions, the Company has found that force majeure events have

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happened due to severe climate changes. On December 27, 2013, for instance, we have stated force majeure in several of four agreements for the sale of iron ore, due to adverse climate conditions in the Southeast of Brazil, which caused suspension in mining and transporting activities, creating serious challenges for operations in our Southeast System. The respective force majeure event was solved on January 6, 2014.

*The Company may not have an adequate insurance coverage for certain business risks.*

The Company's businesses are generally subject to numerous risks and uncertainties that could result in damage or destruction of properties, facilities and equipment. Vale's insurance against risks that are typical in such business may not provide adequate coverage. Risk insurance (including liability for environmental pollution or certain hazards or interruptions of certain business activities) may not be available at a reasonable cost or at all. Even when it is available, the Company can self-insure by determining that this will have better cost-benefit. As a result, accidents and other negative events involving its mining, production or logistics facilities may have an adverse effect on its operations.

*The Company reserve estimates may materially differ from the mineral quantities that it may be able to actually recover; its estimates of mine life may prove inaccurate; and market price fluctuations and changes in operating and capital costs may render certain ore reserves uneconomical to mine.*

Company reported reserves correspond to estimated quantities the Company determines to 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 factors beyond Company control. Reserve reporting involves estimating deposits of minerals that cannot be measured in an exact manner, and the accuracy of any reserve estimate is based on the quality of available data and engineering and geological interpretation and judgment. Thus, no assurance can be given that the amount of ore indicated in those reports will be effectively recovered or that it will be recovered at the rates anticipated by the Company. Reserve estimates and estimates of mine life may require revisions 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, changes in current regulations or other factors may render proven and probable reserves uneconomical to exploit and may ultimately result in a restatement of reserves. This reformulation can affect the rates of depreciation and amortization and cause a negative impact on the Company's financial performance.

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*The Company may not be able to replenish its reserves, which could adversely affect its mining prospects.*

The Company is engaged in mineral exploration, which is highly uncertain in nature, involves several risks and is many times non-productive. Its exploration programs, which involve significant capital expenditures, may fail to result in the expansion or replenishment of reserves depleted by current production. If the Company fails to develop new reserves, it will not be able to sustain its current level of production beyond the remaining lives of its existing mines.

*The feasibility of a new mining project may change over time*

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

- Determine mineral reserves through drilling;
  
- Determine appropriate mining and metallurgical processes for optimizing the recovery of metal contained in ore;
  
- Obtain environmental and other required licenses;
  
- Construct the necessary mining and processing facilities and infrastructure required for the development of new projects (greenfield);  
and
  
- Obtain the ore and/or extract the minerals from the ore.

If a project proves not to be economically feasible by the time the Company is able to explore it, the Company may sustain significant losses, and eventually be compelled to reduce such assets. In addition, potential changes or complications involving metallurgical and other technological processes arising during the life of a project may result in delays cost overruns that may render the project not economically feasible.

*The Company faces rising extraction costs or investment requirements over time as mineral reserves deplete.*

Mineral reserves are gradually reduced in the ordinary course of a mining operation. As mining progresses, distances to the primary crusher and to waste deposits become longer, pits become steeper, open mines become underground mines, and underground operations become deeper. Additionally, for some types of reserves, the mining level is reduced and hardness increases in greater depths. As a result, over time, the Company usually experiences increase in extraction costs per unit in each mine, or there may be a need for additional investments, including adjustment or construction of processing

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plants and expansion or construction of disposal barriers. Many of its mines have been operated for extended periods of time and it is likely that the Company needs to increase extraction costs per unit in these operations in particular.

*Labor disputes may disrupt the Company's operations from time to time.*

The Company has a substantial number of employees and some subcontractors' employees are represented by unions and are subject to collective bargaining agreements or other labor agreements that are subject to periodic negotiation.

Additionally, the Company is subject to periodical and regular investigations by the Ministry of Labor and Employment and the Labor Prosecution Office aiming compliance with labor rules, including those related to labor health and security. These investigations may cause fines and processes that could adversely and materially affect the businesses, the results and financial conditions of the Company.

Strikes and other labor disruptions in any of the Company's activities could adversely affect the operation of its facilities, the completion period and the cost of main projects. For more information on labor relations, see item 14 of this Reference Form. Moreover, we may be adversely affected by work stoppages involving third parties that may provide goods or services to the Company.

*The Company may face shortages of equipment, services and skilled personnel.*

The mining sector has faced global shortage of mining and construction equipment, spare parts, contractors and other skilled personnel during periods of high demand for minerals and metals and intensive development of mining projects. The Company may experience longer periods for the supply of mining equipment and face problems with the quality of outsourced engineering, construction and maintenance services. The Company competes with other mining companies and other extraction companies in relation to the hiring of highly skilled managers and staff with relevant technical and mining expertise, and may not be able to attract and retain such people. Shortages at peak periods can cause a negative impact on its operations, resulting in higher costs with investments, production disruptions, higher inventory costs, project delays and possible reduction in production and revenue.

*Higher costs of energy or energy shortages may adversely affect the Company's business.*

Energy costs are a significant component of the Company's production cost, representing 10.2% of the total cost of goods sold in 2013. To meet its energy demand, the Company depends on the following resources: Oil byproducts which accounted for 46% of all energy needs in 2013, electricity (25%), coal (7%), natural gas (16%) and other sources of energy (6%), using amounts converted to tons of oil equivalent ( TOE ).

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Expenses with fuel accounted for 7.5% of its cost with goods sold in 2013. Increases in oil and gas prices negatively affect profit margins regarding its logistics services, mining business, and iron ore pelletizing, fertilizers and nickel.

Expenses with electricity accounted for 2.7% of its total cost of goods sold in 2013. If the Company cannot ensure safe access to electricity at affordable prices, it may be forced to reduce production or may experience higher production costs, both of which can adversely affect its operating results. The Company faces the risk of energy shortages in countries where it has operations and projects, due to excessive demand, lack of infrastructure or adverse weather conditions such as floods or droughts.

Electricity shortages have already occurred in different parts of the world, and there is no guarantee that growth in capacity of power generation in countries where the Company operates is sufficient to meet increased consumption in the future. Future shortages and government efforts to respond to or prevent electricity shortages may have a negative impact on the cost or supply of electricity to the Company's operations.

*Exchange rate volatility of currencies in which the Company conducts its operations relative to U.S. dollars could adversely affect its financial condition and operating results.*

A substantial portion of the Company's revenues and debt is expressed in U.S. dollars, and exchange rate fluctuations can result in (i) losses regarding its net debt expressed in U.S. dollars and its accounts receivable and (ii) losses in fair value regarding its currency derivatives used to stabilize its cash flow in U.S. dollars. In 2013, the Company had exchange losses in the amount of US\$ 2.8 billion, while in 2012 and 2011, the Company faced exchange losses of US\$ 1.9 billion and US\$ 1.4 billion, respectively. Moreover, the exchange rate volatility of the Brazilian real, Canadian dollar, Australian dollar, and Indonesian rupiah and other currencies against the U.S. dollar affects the Company's results, since most of its goods are sold is expressed in US dollar, and most of the cost of goods sold is expressed in currencies other than the U.S. dollar, primarily in real (54% in 2013) and Canadian dollars (14% in 2013), while Company income is expressed primarily in U.S. dollars. The Company expects that currency fluctuations will continue to affect its revenues, expenses and cash flow.

The significant volatility in currency exchange rates may also result in the interruption of foreign exchange markets and may limit the Company's ability to transfer or exchange certain currencies into US dollars and other currencies for the purpose of making timely payments of interest and principal on its debts. Central banks and governments of countries where the Company operates may impose restrictive foreign exchange policies in the future and levy taxes on foreign exchange transactions.

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*The integration between the Company and acquired companies may be more difficult than anticipated.*

The Company may not be able to successfully integrate its acquired businesses. The Company has partially increased its business through acquisitions and part of its future growth may depend on acquisitions. The integration of acquired businesses may take longer than expected and the costs related to the integration of those businesses may be higher than expected. Completed acquisitions may not result in increased revenues, cost economy or operational benefits as initially expected at the time of conception. Acquisitions may lead to substantial costs as a result, for example, impairment amortization, unexpected contingencies arising out of acquired enterprises, impossibility of maintaining a key team, inconsistent standards, checks, procedures and policies between the Company and the acquired business, which may adversely affect its financial condition and the results of operations. Additionally, management focus may be deviated from ordinary responsibilities to integration-related issues.

*Failures on Company information technology systems or difficulties in the integration of new corporate resources planning software may affect regular businesses of the Company.*

The Company counts on information technology systems (IT) for the operation of many of its business processes. Failures to such IT systems may, whether caused by accident or ill-intended acts, may cause disclosure or robbery of sensitive information, resource deviation and interruption to commercial operations.

Additionally, the Company is in the middle of the integration of the new corporate resource planning software to its IT systems. Should it not be able to replace, update, or alter its current IT systems to be adapted to this new software at the appropriate time and with low cost, its ability to capture and process financial transactions may be affected adversely. Deploying the software may be more expensive or take longer than expected; causing loss of data or failures in the system that could affect the regular operation of Company businesses. Should it be able to successfully manage the deployment of the new software, results from its operations may be adversely affected.

*The Company is involved in several lawsuits that may adversely affect its business, if rulings are not favorable to the Company.*

The Company is involved in several lawsuits in which plaintiffs claim substantial amounts of money. The outcome of these lawsuits is uncertain and may result in obligations that may materially and negatively affect its business and the value of its shares, ADSs and HDSs. For more information, see item 4.3 of this Reference Form.



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*Company's governance processes and compliance with its obligations may fail to avoid regulatory fines and damages to its reputation.*

The Company operates in a global environment and its activities extend across multiple jurisdictions and complex regulatory structures with an increase in its legal obligations around the world. Its governance process and compliance with obligations, which include the identification and mitigation of risks through internal controls focused in the information published in their own financial reports, may not be able to avoid future violations of the law and accounting and governance standards. The Company may be subject to violations of its Code of Ethics and Conduct, business conduct protocols and fraudulent and dishonest behavior by its employees, contractors and other agents. Failure by the Company to comply with applicable laws and other rules can result in fines, loss of operating licenses and damages to its reputation.

*Investors may find it difficult to comply with any judgment rendered outside Brazil against the Company or any of its affiliates.*

Company investors can be located in jurisdictions outside Brazil and may file claims against the Company or management members with courts within their jurisdictions. The company is a Brazilian company and most of its officers and members of the Board of Directors are Brazilian residents. Most of Company's assets and the assets of its officers and members of the Board of Directors will be probably located in jurisdictions other than the jurisdictions of its investors. The investors, in their jurisdictions, may not be able to serve notices against the Company or its manager's resident outside their jurisdictions. Additionally, a foreign decision may be enforced in Brazilian courts, without a new analysis on merits provided that it is previously confirmed by the Brazilian Superior Court of Justice, which confirmation will be granted as long as such judgment: (a) meets all the formal requirements to be enforced pursuant to the legislation in force in the country where it was rendered; (b) has been rendered by a competent court after due process against the company or after sufficient evidence of contempt of court by the company, pursuant to the legislation in force; (c) is not subject to appeal; (d) has been authenticated by the Brazilian consulate in the country where it was rendered and is accompanied by a sworn translation into Portuguese; and (e) is not contrary to the sovereignty of Brazil, its public policy or morality. Therefore, investors may not obtain favorable decisions outside their jurisdictions in judicial processes filed against the Company or its managers passed by courts in their jurisdictions with decisions on the basis of the legislation in force in those jurisdictions.

**Risks relating to Company's controlling shareholder or parent group**

*The Company's controlling shareholder exerts significant influence over Vale and the Brazilian government holds certain veto rights.*

On December 31, 2013, Valepar S.A. ( Valepar ) held 52.7% of the common shares and 32.4% of the Company's total capital. As a result of its stock ownership, Valepar may elect the majority of members of the Board of Directors and can control the outcome of some actions requiring shareholder approval. For a description of the Company's ownership structure and of Valepar shareholders' agreement, see item 15 of this Reference Form.

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The Brazilian government owns 12 special class preferred shares (golden shares) of Vale, granting limited veto power over certain matters regarding the Company, such as changes of corporate name, location of main office and corporate purpose related to mining exploration. For a detailed description on the veto power of golden shares, see item 18.1 in the Reference Form.

**Risks relating to Company suppliers**

Several Company activities depend on the provision of products and services supplied by third parties. In view of that, Vale maps several risks of supply interruption related to its suppliers. At the limit, these interruptions may cause serious consequences to Company operations and projects.

Furthermore, for information about risks relating to Company suppliers, please see Risk Factors under "The Company face shortages of equipment, services and skilled personnel". The higher energy cost or lack of energy could adversely affect Company business, above.

**Risks relating to Company customers**

*Company business could be adversely affected by demand reduction for products manufactured by its customers, including steel (for iron ore and coal operations), stainless steel (for nickel operations), and agricultural commodities (for fertilizer operations).*

The demand for iron ore, coal and nickel depends on global demand for steel. Iron ore and pellets, which together accounted for 73.0% of Company net operating revenues in 2013 are used in the production of carbon steel. Nickel, which accounted for 8.3% of Company net operating revenues in 2013 are mainly used to produce stainless and alloy steels. Demand for steel depends heavily on global economic conditions as well as on a series of regional and sectorial factors. The prices of the different types of steel and the performance of the global steel industry are highly cyclical and volatile and these business cycles in the steel industry affect the demand for and the prices of its products. Besides, the vertical integration of the steel and stainless steel industry and the use of scrap could reduce the global transoceanic trade of iron ore and primary nickel. The demand for copper is affected by the demand for copper wire and a sustained decline in the demand in the construction industry could have an adverse impact on Company copper businesses. The demand for fertilizer is affected by agricultural commodities prices in the international and domestic markets, and a sustained decline in the price of one or more agricultural commodities may cause an adverse impact on the Company's fertilizer business.

**Risks relating to the fields of economy in which the Company operates**

*Prices charged by the Company, including prices of iron ore, nickel and copper, are subject to volatility.*

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The iron ore prices are defined based on a variety of pricing options, which generally use spot price indices as a basis for determining prices to customers. Nickel and copper prices are based on prices reported for these metals in the

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commodity exchange markets, such as the London Metal Exchange ( LME ) and the New York Mercantile Exchange ( NYMEX ). Company products prices and revenues for these products are therefore volatile and can adversely affect its cash flow. World prices for these metals are subject to significant fluctuations and are affected by many factors, including effective and expected global macroeconomic and political conditions, levels of supply and demand, availability and cost of substitutes, inventory levels, and investments from commodities funds, and actions of participants in commodities markets.

The nickel industry had a strong supply growth in the past few years, which has continued to push prices in 2013. Nickel refining in China, using mainly imported nickel and related raw material, has had an estimated growth of 560,000 metric tons from 2006 to 2013. In 2013, the estimated Chinese production of pig iron nickel and iron nickel has continued to increase representing 25% of the world's nickel output. Other long term nickel production is also in ramp and will continue to increase global nickel supply in the next few years.

In January 2014, the Indonesian government approved a law that limits the sale and exportation of unprocessed nickel. Indonesia is currently an important nickel producer, and as consequence of this new law, we expect the offer of nickel at international markets to decline, caused nickel prices to increase. Should this measure not be in effect, or should it have an impact other than Company expectations, there may be a need of reviewing our projections for future nickel prices.

**Risks relating to the regulation of the sectors in which the Company operates**

*Regulatory, political, economic and social conditions in the countries in which the Company has operations or projects could adversely affect its business and the market prices of its securities.*

Vale's financial performance may be negatively affected by regulatory, political, economic and social conditions in the countries where the Company has significant operation. In many of these locations, Vale is open to risks, such as potential renegotiations, annulments or changes imposed by existing contracts, property expropriation or nationalization, currency exchange, legislation changes, local regulations and policies, political instability, bribery, extortion, corruption, civil war, acts of war, guerrilla activities, terrorism. The Company is also faces the risk of having to submit to foreign jurisdiction or arbitration or to be forced to execute a court order against a sovereign nation within its own territory.

Company operations rely on authorizations and concessions from governmental regulatory agencies in the countries where the company operates. For further details about the authorizations and concessions that its operations rely on, please refer to item 7 in this Reference Form. The Company is subject to laws and regulations in many jurisdictions that can experience changes at any time, and changes of laws and regulations may require modifications in its technologies and operations and result in unexpected capital expenditures.

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Actual or potential political or social changes and changes in economic policy may undermine investors' confidence which could hamper investments and therefore reduce still negatively affect economic and other conditions under which the Company operates, so as to adversely affect its business.

*Disagreements with local communities where the Company operates may have a negative impact on its business and reputation.*

Legal disputes with communities where the Company operates may appear. Although we contribute to local communities through taxes, royalties, employment and business opportunities and social programs, community expectations are complex and involve multiple stakeholders with different interests and constant evolution. In some cases, our operations and mineral reserves are located on lands or near lands owned or used by indigenous or aboriginal tribes, or other groups. Some of these indigenous populations may have rights to review or participate in the management of natural resources, and the Company discusses and negotiates with them in order to minimize the impacts of operations or to have access to their lands.

Some Company mining operations and other operations are located in territories where property may be subject to disputes or uncertainties, or in areas destined to be used for agriculture, or for purposes of agrarian reform, which may cause disputes with land owners, communities and local government. The Company checks and negotiates with these groups in order to reach a common agreement regarding land access and how to minimize the impact from our operations.

Disagreements or disputes with local groups, including indigenous or aboriginal tribes, may cause delays or interruptions in operations, adversely affect the Company's reputation or hinder its ability to work in mineral reserves and conduct operations. Protesters have acted in the past to disrupt Company operations and projects and may continue to do so in future. Although we are engaged in active discussions with all stakeholders and we defend ourselves vigorously against illegal acts, future attempts by protestors to cause harm to its operations could have a material adverse effect on its business.

*The Company may experience adverse effects of changes in government policies or trends as nationalization of funds, including the imposition of new taxes or royalties on mining activities.*

Mining is subject to government regulation in the form of specific taxes, fees and other contributions, as royalties on mining activities, which can have a significant impact on Company operations. In the countries where the Company operates, governments may impose existing taxes, fees or different contributions, or increase the existing rates for taxes, fees and different contributions, including royalties, reduce fiscal exemptions and benefits, solicit, or yet, compel renegotiation of fiscal stabilization agreements or, also, modify the basis on which they are calculated, in a manner unfavorable to the

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Company. Governments that have undertaken to create a stable tax and regulatory environment may shorten the duration of these commitments.

It is also possible that the Company must comply with internal benefit requirements in some countries, such as local processing rules, import taxes, or restrictions, or fees on transformed ore. Imposition or increase of such taxes or fees may significantly increase the risk profile and operational cost in these locations. The Company and the mining industry are subject to an increased nationalization trend related to mineral resources in certain countries where it operates, which may cause reductions in operations, tax increases or even expropriation and nationalization.

*The Company may have its businesses affected by environmental, health and safety regulations, including regulations relating to climate change.*

Almost all the aspects of Company's operations, products, services and projects all over the world are subject to environmental, health and safety regulations, which may expose the Company to increased liability and costs. These regulations require that the Company obtains environmental licenses, permits and authorizations for its operations and conducts environmental impact assessments in order to obtain approval for its projects, and permit to start construction. Besides, all significant changes required in existing operations must also undergo the same procedure. Difficulties to obtain operating licenses may cause delays in the deployment of projects or cost increases. Environmental regulations also impose rules and control standards on activities relating to research, mining, pelletizing, railway and maritime transportation services, ports, decommissioning, refining, distribution and marketing of products. These regulations may give rise to significant costs and liabilities. Besides, community associations and other stakeholders may request an increase in sustainable and socially responsible measures and development, and the efforts may lead to the creation or review of governmental rules and policies, which could entail significant cost increases and reduce Company profitability. Litigation relating to these or other matters may adversely affect the Company financial condition or cause harm to its reputation.

It is worth noting that according to the National Environmental Council ( CONAMA ) Resolution no. 237/97, the maximum validity for environmental licenses is five (5) years for prior license, six (6) years for installation licenses, and 10 (ten) years for operation licenses.

Lack of licenses or authorizations from competent environmental authorities to build, deploy, alter, improve and activities operation and/or enterprises potentially polluting and users of natural resources subject the violator to criminal and administrative penalties. The value of the fine will depend on the evaluation of any eventual associated environmental damage. Additional to fines, violator may be subject to sanctions as suspension of activities, deactivation, and demolition, and others, which are also applicable should the Project constructor fail to comply with terms set forth in the environmental licensing.

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Environmental regulations in many of the countries where Vale operates have become stricter in recent years and more regulations or a more aggressive enforcement of regulations already in force are likely to adversely affect the Company by imposing restrictions on its activities and products, by establishing new requirements relating to the emission and the renewal of environmental licenses, increasing costs or forcing the Company to get engaged in area expensive regeneration ventures. For example, changes in the Brazilian legislation to protect underground hollows have forced the Company to conduct large technical studies to participate in complex discussions with competent administration entities, discussions that are still ongoing. Therefore, Vale cannot yet assess the regulatory impact on its operations, though it is possible that in some operations and iron ore mining projects it may be forced to limit or alter mining activities, incurring on additional costs to conserve underground hollow or to make up for the impact inflicted on them, the consequences of which may be relevant to output volumes, cost or reserves in the Company's iron ore business.

Concerns over the climate change and efforts to comply with international regulations could lead governments to impose limits on carbon emission, to impose taxes on gas the emission of greenhouse effect gases, and establish commercial emission conditions applicable to Company operations, which could adversely affect its operating costs or its investment requirements. For example, in 2012, the Brazilian government conducted public hearings to present and discuss control plans for carbon emission in mining activities under the terms on the carbon emission law (National Climate Change Policy), and the Australian government introduced a carbon pricing mechanism that came into force in July, 2012 and that requires certain companies, Vale included, to purchase carbon emission permits. Furthermore, the International Maritime Organization is studying mechanisms, such as carbon price, to reduce greenhouse effect gases from international transportation, which may increase the Company's international transportation prices.

**Risks relating to the foreign countries in which the Company operates**

*Economic developments in China may cause a negative impact on the Company's revenue, cash flow and profitability.*

China has been the main driver of global demand for minerals and metals in recent years. In 2013, Chinese demand represented 64.3% of global transoceanic demand for iron ore, 50% of global demand for nickel, and 43% of the global demand for copper. The percentage of the Company's net operating revenues attributable to sales to consumers in China was 40.5% in 2013. Therefore, any contraction in China's economic growth may result in reduction on the demand for products, leading to lower revenues, cash flow and profitability. Poor performance of the Chinese real estate sector, the highest consumer of carbon steel in China, would also cause a negative impact on the Company's results.

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**Risks relating to Company's ADSs and HDSs (American Depositary Shares and Hong Kong Depositary Shares)**

*If holders of ADRs or HDSs exchange the ADSs or HDSs, respectively, for underlying shares, they risk losing the ability to remit abroad funds corresponding to the sale in foreign currency.*

The custodian of shares underlying the Company's ADSs and HDSs keeps records with the Central Bank of Brazil, entitling him to remit U.S. Dollars abroad by way of payment of dividends and other distributions relating to the shares underlying ADSs and HDSs or to the disposal of the underlying shares. In the event holders of ADRs or HDRs exchange ADSs or HDSs for underlying shares, they shall be entitled to use the custodian's records of US dollars for only five days from the date of exchange. Upon said term, holders of ADRs or HDRs can no longer hold and remit foreign currency abroad through the sale of underlying shares or distributions regarding such shares, unless they obtain their own registration, pursuant to the terms of Resolution No. 2,689 of the National Monetary Council (CMN), which confers on registered foreign investors the right to buy and sell securities at BMF&BOVESPA. If holders of ADRs or HDRs try to obtain a registration, they may incur expenses or suffer delays in the registration process, which may delay the receipt of dividends and other distributions with respect to the underlying shares or capital return in a timely manner.

The Company is unable to assure holders of ADR or HDR that their custodian registration or any registration will not be affected by future legislation modifications or additional restrictions applicable to holders of ADR or HDR, the disposal of underlying shares or the repatriation of resources obtained through disposal will not be taxed in the future.

*Holders of ADR and HDR may not be able to exercise their pre-emptive rights relating to shares underlying their ADSs and HDSs.*

ADR and HDR may not be able to exercise their preemptive rights or other rights relating to the underlying shares. The ability of HDR and ADR holders to exercise their preemptive rights is not guaranteed, especially if the law applicable in holders' jurisdiction (for example, the Securities Act in the United States or the Companies Ordinance in Hong Kong) demands that a registration declaration be effective or that an exemption from registration be available relating to those rights, as is the case in the United States, or for any document enabling preemptive rights to be registered as a prospectus, as is the case in Hong Kong. The Company is not bound to make a registration statement in the United States, or make any other record with respect to preemptive rights in any other jurisdiction, or to take measures that may be necessary to grant exemptions from available registration and it cannot ensure to holders that it shall make any registration statement or take such measures. The Company is not required to extend the preemptive rights to the holders of HDR through the depositary.



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*ADR and HDR holders may encounter difficulties to exercise their voting rights.*

Holders of ADR or HDR do not have the same rights as shareholders. They only hold contract rights established in their favor under their respective deposit contracts. ADR and HDR holders are not entitled to take part in shareholders meetings and may vote by means of instructions delivered to the depositary. In fact, the ability of an ADR and HDR holder to instruct the depositary on how to vote will depend on the term and procedures to provide instruction directly or through a custodian and the holder liquidation system. With respect to ADSs, if no instruction is received, the depositary may, subject to certain limitations, appoint an attorney designated by the Company.

*Legal protections for holders of Company securities differ from one jurisdiction to another and may be inconsistent, unknown or less effective than investors' expectations.*

Vale is a global company whose securities are listed on many markets and which investors are located in many different countries. Investors legal protection systems vary across the world, sometimes in relation to important aspects, and investors must be aware that, as far as the Company's securities are concerned, the protections and remedies available to them may be different from those they are used to in their markets. The company is subject to securities laws applicable in several countries, which provisions and monitoring and enforcement practices are different. The only Corporations Act applicable to the Company is the Brazilian equity companies' law, with specific and substantial legal rules and procedures. The Company is also subject to corporate governance standards in various jurisdictions in which its securities are listed, but, as a foreign private issuer, the Company is not obliged to follow many of the corporate governance rules which apply to domestic issuers in the United States with securities listed on the New York Stock Exchange and is not subject to U.S. proxy voting rules. Likewise, the Company has been granted waivers and exemptions regarding certain requirements provided for in the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (HKEx Listing Rules), in the regulations on Takeovers and Mergers and Share Repurchases and in the Securities and Futures Ordinance of Hong Kong, which are generally applicable to issuers listed in Hong Kong.

**4.2 Comments on expectations for changes in exposure to risk factors**

We constantly analyze the risks that the company is exposed to and which may adversely affect our business, financial situation and results of our operations. We permanently monitor changes in the macro-economic and sectorial scenario which might impact our activities, by tracking the main performance indicators. Our policy is one of continuous focus on financial discipline and conservative cash management. At present we do not identify any scenario which would lead to a reduction or increase in the risks mentioned in in item 4.1 of this Reference Form. .

Please find below the measures taken by the Company to mitigate some of the risk factors presented in Item 4.1 of this Reference Form:

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*The Company may not be able to adjust the volume of production in time or cost effectively in response to changes in demand.*

The Company seeks to continually develop technology solutions for excellence in operational performance.

*Concessions, authorizations, licenses and permits are subject to expiration, restriction or renewal and to various other risks and uncertainties.*

To deal with this challenge, the Company seeks to be a sustainable operator, always trying to be a catalyst for local development. Specifically on the environmental aspects, the Company has actions to improve efficiency in the licensing processes, such as a greater integration between environment and project development teams, the development of a Guide to Best Practices for Environmental Licensing and Environment, the appointment of teams of highly qualified specialists, a greater interaction with environmental agencies and the creation of an Executive Committee to streamline internal decisions.

*Company's projects are subject to risks that may result in increased costs or delays that may jeopardize their successful implementation.*

As a measure to mitigate projects' risks, Vale invests in training its employees working in the planning and execution of projects, and has taken actions to streamline the environmental licensing that has been the main reason for delays, such as creating a Guide to Best Practices of Environmental Licensing and Environment. Besides, the Company has implemented the dissemination of information and prevention campaigns to improve standards of health and safety of employees.

Vale aims to control and manage environmental liabilities at its units. Contaminated areas are considered to be those where there is proven pollution caused by the deposition, accumulation, storage and infiltration of substances or residues, implying adverse impacts on assets to be protected. If there is any suspected contamination, Vale aims to carry on successive environmental studies aiming to limit the extension of environmental degradation and potential risks to health and environment. Discovery of contamination requires measures to be taken by government agents, agents of the entity causing the environmental damage and owners. Corrective measures should be applied aiming to establish quality levels compatible to a specific

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future use. Thus, upon detecting the need to remove contamination identified in the area, Vale aims to prepare the Remediation Plan, according to applicable rules. After the remediation, results found are monitored for a period of time to be defined by the environmental entity. Monitoring results will indicate the remediation efficiency.

Eventual use restrictions arising out of previously existing contamination and that is found after remediation of deactivated areas should be made public, by changing the registry before the appropriate registrar.

*Operational problems may materially and negatively affect the company's business and financial performance.*

Along with the project development process, the Company has adopted an integrated risk assessment, which anticipates potential problems and allows mitigation plans. The methodological rigor promotes a higher accuracy of estimates, transparency and predictability in project development, as well as it ensures compliance with environmental regulations and health and safety requirements, and minimizes impacts on communities.

*The company's business may be negatively affected if its counterparties fail to meet their obligations.*

The Company always seeks high-level partners and keeps a fair and close relationship over time. Additionally, Vale tries to assess the quality of its counterparts' credits to define their exposure based on this evaluation.

*Natural disasters can cause serious damages to the company's operations and projects in countries where it operates and/or may have a negative impact on its sales to countries adversely affected by such disasters.*

The Company has adopted measures that include business continuity plans that provide immediate responses to protect people, assets and the company's image, alternative solutions to guarantee business continuity and fast recovery for return to normal production flow and monitoring and weather forecast systems. Moreover, the geographical diversification of its assets and sales to different countries and regions collaborate to reduce this risk.

*The company may not have an adequate insurance coverage for certain business risks.*

For cases where there is a limitation on purchased coverage, the Company uses its captive insurers to absorb some of the risks. In addition, it seeks to maintain a long-term relationship with the insurance and reinsurance market, and in all insurance lines, it works with the diversification of counterparties.

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It is important to emphasize that the Company only mitigates part of the risks through insurance policies, applying the operational risk management methodology to prioritize the risks and, for the most relevant ones, developing controls and action plans to mitigate the risks.

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*The company faces an increase in extraction costs as mineral reserves are reduced.*

As for the risks listed above, Vale seeks to have an extensive and high quality asset base in the business in which it operates, without relying solely on certain mines, thereby, diversifying risks. The Company invests heavily in mineral exploration since, with more samples, the estimation risk is reduced.

It continuously resupplies its reserve base through new projects to avoid depletion of mines. Moreover, it has a presence in several minerals and geographic locations, which also helps to diversify risks.

*Labor disputes may disrupt the Company's operations from time to time.*

The Company believes that staff is one of its competitive advantages, and seeks to treat all employees in the fairest possible way. The Company promotes a work environment conducive to dialogue, in which all employees are encouraged to share with their colleagues and superiors their concerns of any nature.

*The company may face shortages of equipment, services and skilled personnel.*

The Company works to increasingly integrate strategic planning, anticipating the demand for equipment and skilled workforce, as well as investing in strategic contracts with suppliers and initiatives to train specialized technicians, engineers and employees engaged in project implementation.

*Higher costs of energy or energy shortages may adversely affect the company's business.*

In order to mitigate the risk of power outages and/or costs, the Company manages a portfolio focused on power generation, comprised by self-production hydroelectric plants and long term supply agreements, based on current and projected energy needs of its mining operations.

*The volatility of the exchange rate of currencies in which the company conducts its operations relative to US dollars could adversely affect its financial condition and operating results.*

The Company's cash flow exchange exposure is assessed in conjunction with other market risk exposures - prices of products and supplies and interest rates - and mitigated when deemed necessary to support the growth plan, strategic planning and the Company's business continuity. Various forms of mitigation may be used: financial transactions through the use of derivatives in order to hedge, committed lines of credit

guaranteeing liquidity, or any strategic decisions aimed at reducing the risk of cash flow. For more details, see item 5.2 of this Reference Form.

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*Integration between the Company and acquired companies, that are an important part of the Company's strategies, may be more difficult than anticipated.*

In order to mitigate the risk of integration, Vale works with a broad management focus on acquisitions and leverages the previously acquired knowledge.

*The company is involved in several lawsuits that may adversely affect its business, if rulings are not favorable to the Company.*

Mitigation measures include the use of defenses presented by the Company based on legal opinions, consolidated legal doctrine, as well as in the predominant case law in the Higher Courts. The internal guidance and consultancy work is based on these same guidelines, sticking to the facts presented.

*The Company's governance and compliance processes may not be able to avoid regulatory penalties and damages to its reputation.*

The Company has internal controls and mechanisms to detect control failures and obtain information on cases of breach of conduct, especially through the Whistleblower Channel.

*The Company may be negatively affected by changes in government policies, including the application of new taxes or royalties on mining activities.*

As safety measures, the Company systematically monitors the changes previously mentioned to react quickly, when applicable participates in discussions with the government through representative bodies of the mining sector and always seeks to operate in the most sustainable possible manner.

*Environmental, health and safety regulations, including regulations relating to climate change, may affect the Company's businesses.*

The Company operates responsibly in all locations where it is present, respecting the communities and the environment. In order to be globally known as an example of excellence in the management of health and safety, the Company has been continually improving its systems.

*The adverse economic developments in China may cause a negative impact on the Company's revenue, cash flow and profitability.*

The Company mitigates this risk, which is reflected in prices, when deemed necessary to support its growth plan, strategic planning and business continuity.



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**4.3 - Publicly known and relevant in-court, administrative or arbitration proceedings**

On December 31, 2013, the Company was not party in arbitrations.

**(i) Labor**

On December 31, 2013, the Company was defendant in 22,703 labor lawsuits, in a total of R\$9.1 billion, for which there is R\$1.6 billion provision due to risks involved. Labor lawsuits filed against the Company relate to matters as overtime, time *in itinere*, health hazard and dangerous conditions premium, salary equity, and outsourcing, among others.

The tables below present an individual description of labor suits relating to the business of the Company and/or its subsidiaries.

1) Claim no. 01266-2006-012

Jurisdiction	6th Panel Supreme Labor Court
Instance	3rd Instance
Date of filing	11/27/2006
Parties in the suit	Public Prosecutor for Labor matters (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	R\$ 757,727.42
Main facts	The Public Prosecutor for Labor matters of Minas Gerais filed, on November 27, 2006, a public civil action seeking to prevent the outsourcing of operation of machines and equipment used for mining, such as wheel loaders, bulldozers and drills, monitoring and reading of instruments in the tailings dams and waste dumps, and preparation and execution of fire-plan (detonation).

On August 20, 2009, the ruling was issued (partially favorable) ordering Vale to refrain from outsourcing the services mentioned above, performing such activities, therefore, with its own employees. The court stated that such services were the main activities of the Company and thus could not be outsourced.

On October 15, 2009, Vale filed an appeal against this decision. The Prosecution Office has also appealed.

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On February 22, 2010, the Superior Regional Labor Court of the Third Region (TRT3) rejected Vale's appeal and partially accepted the appeal filed by the public prosecution office, granting the legal protection sought, forcing Vale to immediately comply with the decision.

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On May 18, 2010, Vale filed an appeal to the Supreme Labor Court (TST), claiming the violation of article 129, III, of the Federal Constitution, and article 83 of the Complementary Law No. 75/93, as well as of divergent case law based on the lack of collective interests authorizing the filing of the public civil action by the Prosecution Office, which could result in the lack of competence of such office to file such a claim and, consequently, dismissal of the action without appreciation on merits (article 267, I and VI and article 295, V, of the Code of Civil Procedure).

Vale has also claimed the violation of Article 5, items XXII, LIV and LV, of the Federal Constitution and of Article 899 of the Consolidation of Labor Laws (CLT), because of the inapplicability of the mortgage ordered by the Regional Labor Court without an enforcement procedure. Finally, Vale claimed the violation of items II and XIII, of Article 5, and sole paragraph of article 170, both of the Federal Constitution, in view of the violation of the right to freely work, provided that the legal requirements are met, considering that activities performed by service providers are specialized and can be legitimately agreed.

On May 21, 2010, in the files of the action filed by Vale, the TST accepted the preliminary order to suspend anticipated effects determining immediate compliance with the decision.

On July 9, 2010, Vale's appeal to the TST was dismissed by the TRT on the grounds that the lower court ruling did not violate any federal law or any predominant case law, against which decision Vale filed an interlocutory appeal on July 19, 2010 to the TST, which is still pending judgment, where it seeks acceptance of the appeal and assessment by the TST.

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Chances of loss	Probable
Analysis of impact in the case of losing the suit/ Lawsuit s relevance to the Company	In case of maintenance of the unfavorable decision, Vale is obliged, in Minas Gerais, to refrain from outsource services previously mentioned, having to perform such activities through its own employees; and to provide for the termination of contracts of outsourcing which may have as their purpose such services.
Amount provisioned (if any)	R\$ 209,488.55
Notes	There is only one labor claim filed by the employee who is on the list attached to the files of the Public Civil Action at stake who claims to be an employee of Vale. Initially, this was procedure no. 2102-2011-054, at the Court of Congonhas, however, due to decision regarding court competence, the claim was remitted to the Labor Court of Ouro Preto, where it is now procedure no. 1562-2012-069. The claim was judged to be inapplicable regarding recognition of employment relationship. An appeal was filed by the plaintiff, through which the plaintiff was successful regarding the compensation for hours <i>in itinere</i> , and the inapplicability of the employment relationship claim was sustained. The decision judging the appeal was not subject to appeals, reason why it became final and ended this procedure on February 24, 2014.
2) Claim no. 0000676-11.2012.5.24.0041	
Court	Labor Court of Corumbá Mato Grosso do Sul
Instance	1st Instance
Date of filing	10/24/2012
Parties in the suit	Public Prosecutor for Labor matters (plaintiff) and Mineração Corumbaense Reunida - MCR (defendant)
Amounts, goods or rights involved	R\$ 115,219.67
Main facts	The Labor Prosecution Office of Mato Grosso do Sul filed a public civil action claiming that MCR should be compelled to comply with labor safety rules set forth in Labor Regulatory Rules.  On December 12, 2012, MCR filed its defense, claiming that it has Always complied with Regulatory Rules and that the accident reported in the action has not occurred due to non-compliance by the employee with the safety rules and

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procedures required by the Company.

Upon the initial hearing, the court determined an examination to find whether or not there is non-compliance with Regulatory Rules.

The examination report is under conclusion.

Chances of loss	Possible
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	In case of unfavorable decision, MCR must deploy safety rules deemed to be non-complied with, and the possibility of fines to the Employee Support Fund, at the currently estimated amount of R\$ 115,219.67.
Amount provisioned (if any)	Not applicable.
3) Claim n. 00329.2006.92020003	
Jurisdiction	Labor Court of Maruim Sergipe
Instance	3rd Instance (Supreme Labor Court)
Date of filing	01/23/2001
Parties in the suit	Vale S.A. (defendant) and Union for workers extracting iron, basic and precious metals-Sindimina (plaintiff)
Amounts, goods or rights involved	Guarantee of the operational activities at the potassium chlorate mine in Sergipe.
Main facts	Lawsuit brought by SINDIMINA union in the State of Sergipe on January 23, 2011, aiming to improve the suitability of the working conditions of employees in the underground potash mine in Sergipe to bring them up to regulatory standard NR 15, especially as regards the temperature of the mine and noise level. Vale filed the defense on February 14, 2001, claiming the lack of competence of the Union to file the action and the lack of infringement against regulating rule NR-15, which would be proved in the Discovery phase.

On February 20, 2006, the ruling was issued determining the adoption of measures, within 30 days, to improve the cooling of the mine, otherwise the activities would be interrupted until the implementation of such measures, and a daily fine of R\$ 100,000 would be applied. On September 25, 2006, Vale filed an appeal to the Regional Labor Court (TRT), which was partially granted, on August 07, 2007, to exclude the interruption of mine activities and the payment of a daily fine of R\$ 100 thousand from the conviction.

On November 29, 2007, Vale filed an Appeal before the Supreme Labor Court (TST) claiming compliance with the legal standards applicable to the activity.

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On December 19, 2012, the TST rejected Vale's appeal, and on February 6, 2012, Vale filed another appeal known as motion for clarification. In March 2012, the motion was dismissed by the TST, and Vale filed another appeal, to the Individual Bargaining Session 1 (SDI-1, internal division of TST) and also an Extraordinary Appeal to the Federal

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Supreme Court STF). Both of these appeals are still pending. Vale has been negotiating to reach a possible settlement, motivating suspension of the suit for 180 days.

Chances of loss

Probable

Analysis of impact in the case of losing the suit/ Reasons for importance for the Company

Any unfavorable decision may risk imposing an obligation to do so, fines and, in the worst case scenario, total or partial closure of the activities of the underground mine for exploitation of Potassium Chlorate/Sergipe, or a monetary penalty for illegal operation. The Company is taking precautionary measures to ward off the effects of any unfavorable decision, through improvements in working conditions.

Amount provisioned (if any)

No amount has been allocated since Plaintiff's claim refers to an obligation to do something (that is, to adapt working conditions to the relevant laws and regulations), with no impact on past and current results. It should be noted that, notwithstanding the outcome of the claim, Vale is already making improvements in the mine conditions. Moreover, the decision provides for the payment of a daily fine if the company continues to develop the mine activities without taking into account the obligation to adapt working conditions to the relevant laws and regulations as provided for in the court ruling.

Therefore, the Company will only be subject to a fine (i) when the decision becomes final (res judicata) and (ii) if an expert evidence demonstrates that the measures adopted by the company were not sufficient to adjust the working environment to the court ruling.

**(ii) Taxes**

The tables below present a description of individual tax cases considered relevant to the business of the company and/or its subsidiaries.

As result of some tax exceptions engaging companies at Vale group, the Company creates a provision totaling, on December 31, 2013, the amount of R\$ 771 million, of which (i) R\$321 million are related to controlled companies abroad, (ii) R\$173 million are related to Brazilian controlled companies, (iii) R\$ 141 million relate to provisions related to CFEM-related procedures (described in item 4.6(ii)in this Reference Form), and (iv) R\$136 million related to other tax procedures of the Company.

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With regard to the processes listed below which challenge the taxation of IRPJ and CSLL on profits from Company's affiliates abroad, it is important to notice that (i) regarding the period from 2009 onwards, tax authorities may issue new tax assessments to ensure the right to collect from the remaining balance of values of said taxes, should they understand that the calculation done by the Company is not correct; (ii) regarding the portion of IRPJ and CSLL questioned in Writ of Mandamus no. 2003.51.01.002937-0 (item 1 in this section), the Company adhered to the new Special Installment Program established by Law 12.865, dated October 9, 2013 (Special Installment Program); and (iii) regarding the other portion of IRPJ and CSLL discussed in Writ of Mandamus no. 2003.51.01.002937-0 (item 1 in this section), related to the period between 2002 (containing generating facts occurring in the period between 1996 and 2002), part of the debts related to year 2005 (related to tax credits that appear in Active Debt Certificates no. 70.2.12.000303-20 and 70.6.12.000814-20, arising out of Administrative Procedure no. 18471.001.243/2007-69, and supported in Tax Collection an no. 0015197-06.2012.4.02.5101), and year 2013 and following, were not object of adherence to the installment program.

Debts related to the years between 1996 and 2002 were not included in the tax recovery program due to the retroactive nature of the tax law, principle violated by the sole paragraph of article 74 in MP 2158/01, which, created only in 2001, intended, under legal fiction, require taxation of past events (1996 to 2001) in 2002. regarding the portion of the tax credit for year 2005, there is no adherence, as the portion corresponding to the requirement of taxes arising out of accrued compensated tax losses in prior years (1996 to 2002). Regarding the years 2013 and following, there is no adherence considering that the installment program allows for the payment of debts which generating facts occurred solely by December 31, 2012. These years, therefore, are outside of the scope of the program.

Additionally, considering the decision favorable to the Company in May 2012, attributing suspensive effects to the extraordinary appeal and, consequently dismissing the applicability of amounts being questioned, duly approved by the Plenary in April 2013, there is no need to post any bond while such favorable decision is still in force. In this sense, the company has used all the surety bonds and cancelled a pledge related to the third act of infringement (2007). [For now, we wait for a statement by the court regarding the use period of the value seized in fiscal collection 2012.5101.013553-4 (R\$ 55 million, which is the only guarantee that was still in effect.) for payment of the debt with deductions provided for under the terms in the Special Installment Payment legislation (REFIS)

Additionally, the special appeal addressed to the Superior Court of Justice (STJ), filed in the Writ of Mandamus no. 2003.51.01.002937-0 was included in the judgment agenda of October 22, a 2013, but was removed upon request by the Federal Prosecution Office. After an opinion submitted by the Federal Prosecution Office, the judgment of said appeal was scheduled for the session to be held on November 26, 2013, when Reporting Justice an Napoleão Maia,



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recognized (admitted) in part the appeal, and in this portion, he granted it, while Justice Sérgio Kukina partially granted the appeal, and, in that portion, denied it. This judgment was resumed on March 25, 2014, when Minister Ari Pargendler presented his vote, accompanying the reporting judge Napoleão Nunes Maia Filho, considering inapplicable the taxation of profit from foreign companies controlled by Vale, since international treaties against double taxation should prevail. The judgment session ended on April 24, 2014, when the First Panel of the STJ decided, by majority of votes, in favor of Vale. Waiting the decision to be published.

The appeal presents the following issues: (i) illegal nature of the taxation regime on profits from affiliates domiciled abroad introduced by article 74 of the Preliminary Order no. 2.158-35/01 and regulated by Normative Instruction 213/2002, by violation against infra-constitutional rules ruling on the generating facts for IR and CSLL; (ii) the illegal nature of the taxation with positive results on asset equivalence set forth in article 7th, Normative Instruction no. 213/2002. The Company claims (iii) dismissal of taxation on profit from affiliates domiciled in Belgium, Denmark, and Luxembourg, due to an TDTs signed by Brazil and these countries (discussion relates to article 7 in the treaties, which sets forth about the exclusive competence of the countries where the States are located to tax on profits); and (iv) non-application of the 75% fine on debts determined under Acts of Infringement related to Administrative procedures nos. 18471.001243/2007-69, 18471.000141/2008-15, 12897.000868/2009-98 and 12897.000023/2010-36, as the appeal filed against the rejection decision was attributed with suspensive effects, which would reestablish the preliminary order obtained by Vale before, suspending the applicability of these tax credits at the time of preparation of the acts of infringement by the supervising entity.

Debts listed in said Writ of Mandamus and in discussion on the records of the following processes were included in the Special Installment Program: (i) Tax Collection 0023959-11.2012.4.02.5101 (IRPJ and CSLL debts related to years 2003 to 2006); (ii) Tax Collection 2011.51.01.518168-2 and Motion for Tax Collection 2011.51.01.509917-5 (IRPJ and CSLL debts related to year 2007); (iii) Tax Collection 0023958-26.2012.4.02.5101 (IRPJ and CSLL debts related to year 2007); (iv) Tax Collection 0011487-75.2012.4.02.5101 (CSLL debts related to year 2008); (v) Tax Collection 0011476-46.2012.4.02.5101 and Motion for Tax Collection 0013553-28.2012.4.02.5101 (IRPJ debts related to year 2008); and (vi) Tax Collection 0023974-77.2012.4.02.5101 (CSLL debts related to year 2008).

As determined in the legislation applicable to the Special Installment Program, on November 29, a 2013, the Company made the initial payments of values due as IRPJ and CSLL on the profit of affiliates located abroad, due to adherence to the installment program. At the time, the Company also formally adhered to the terms of the Special Installment Program, upon delivering the respective attachments set forth by Joint Order PGFN/RFB no. 9/2013. Monthly payment of the installments has been duly made, ever since.

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Adherence to the Special Installment Program implied payment to the Federal Revenue Secretariat of R\$5.940 billion by the end of November 2013 and payment of R\$16.273 billion paid in 179 months, and the first installment was paid on December 31, 2013, in the amount of R\$ 91,825 thousand, adjusted by the SELIC interest rate. Thus, the present net value of the payment flow is estimated by the Company at R\$14.425 billion.]

The total liability for the years 2003 to 2012, including filed and unfiled periods for the Company and its affiliates, was estimated at R\$ 45.0 billion - R\$ 17,084 billion as principal, R\$ 9,831 billion as fine, R\$ 11,983 billion as interest and interest on fines, and R\$ 6.094 billion as fees.

Among options offered by the legislation, the Company opted for the payment in cash of the principal related to years 2003, 2004 and 2006 and dividing, into installments, the principal, fines, and interest related to 2005, and 2007 to 2012. According to the legislation, in case of cash payment, only the principal of the tax is due while in the installment payment, 80% of fines are exempted, as well as 50% of interest and 100% of fees.

The option chosen by the Company presents estimated face value of R\$ 22.214 billion, where R\$ 16.222 billion as principal, R\$ 1.565 multibillion as fine, and R\$ 4.427 billion as interest and interest on fines. Reduction of the principal is due to the discount of R\$798 million due to accrued losses in Brazil. The current value of this option after tax benefits is R\$ 14.425 billion, and it appears to be a better option compared to total payment in cash as it reduces the pressure on liquidity and minimize the present value of payments.

Participation on REFIS had impact of US\$ 6.7 billion (R\$ 14.8 billion) on the net profit in 2013. In following years, financial expenses will include interest comprising the payments made under REFIS. Future cash flows will be affected by monthly installments.

On this matter, it is important to note that on December 18, 2013, to comply with requirements in Law an 12.865/13, the Company submitted the petition to the records of said proceedings before the Superior Court of Justice (STJ), requiring partial dismissal of the decision and waiver of arguments under which the respective actions are grounded, according to partial waiver/dismissal parameters in the Writ of Mandamus no. 2003.51.01.002937-0.

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1) Writ of Mandamus 2003.51.01.002937-0

Jurisdiction	Superior Court of Justice and the Federal Supreme Court
Instance	3rd instance
Date of Filing	02/03/2003
Parties in the suit	Vale (Plaintiff/Appellant) and National Tax Authority (Defendant/Appellee)
Amounts, goods or rights involved	Not applicable
Main facts	In February 2003, Vale filed a Writ of Mandamus to ensure the right not to be subject to income tax and social contribution as far the profits of its subsidiaries and affiliates abroad were concerned, according to the sole paragraph of article 74 of the Provisional Executive Order 2.158-34/2001, and later amendments.

Arguments of the Company:(i) section 74 of the Provisional Measure overlooks the treaties against double taxation signed by Brazil; (ii) the National Tax Code forbids the aforementioned taxation as set forth by the Provisional Measure; (iii) even if section 74 of the Provisional Measure were valid, exchange variation should be excluded from the assessment of due taxes; and (iv) the rule IN 213/2002 is illegal and (v) violation of the principle of prior taxation related to generating facts occurring before December 2001.

In February 2003, an injunction request was granted to suspend the collection of the tax credit resulting from the challenged legislation, so that the rules of Law No. 9.532/97 would continue to apply.

In August 2005, a rejection ruling was issued, causing revocation of the injunction previously obtained by Vale.

Vale filed an appeal which was received on September 29, 2005, which reestablished the suspension to enforce the tax credit obtained by the Company in the injunction.

On March 29, 2011, the Federal Regional Court of the 2nd Region (TRF 2nd Region) dismissed the appeal, rejecting the arguments of Vale.

After reviewing the ruling, published on May 30, 2011, Vale has changed the prognosis from remote to possible, as reflected in its financial statements for June 30, 2011, filed on July 28, 2011. On

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June 3, 2011, Vale filed an appeal

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(motion for clarification) against the decision by the 2nd Region TRF, pointing out omissions regarding the exchange rate variation and on the unconstitutionality of the sole paragraph of article 74 of Provisional Executive Order, in addition to a contradiction relative to the application of treaties to avoid double taxation. The contradiction claimed by Vale is based on the fact that such challenged decision states, at the same time, that (a) Article 7 of the treaties against double taxation prohibits Brazil from taxing profits of affiliates and subsidiaries abroad, (b) that treaties prevail against internal laws and (c) that, however, such provision does not prevent the application of article 74 of the Provisional Executive Order 2158-35/01.

On November 28, 2011, the ruling which judged the motion (motion for clarification) partially in favor of Vale was published determining exclusion of exchange rate variation on the amount of foreign investment, but rejecting the other requests and the suspension of the tax credit granted by the appeal.

On December 13, 2011, Vale filed a Special Appeal at the Superior Court of Justice (STJ) and an Extraordinary Appeal at the Supreme Court of Justice (STF).

The Special and Extraordinary Appeals were admitted on May 7, 2012, the same day that Vale filed for a Preliminary Order before the Superior Court of Justice (STJ) and the Federal Supreme Court (STF) requesting attribution of suspensive effects to the Extraordinary Appeal. The Preliminary Orders aimed to suspend the application of tax credits. At the STJ, although the preliminary order was granted initially, the decision judging the preliminary order rejected Vale's claim, cancelling the preliminary order. At the STF, the preliminary order was granted on May 9, 2012 and confirmed by the panel at the STF on April 10, 2013, reason why it remains in force.

On October 22, 2013, the Special Appeal by Vale (STJ) was included in the judgment agenda, but was later removed by the Federal Prosecution Office that, subsequently, issued an opinion unfavorable to Vale's claim.

On November 26, 2013, the First Panel of the STJ resumed the judgment of the appeal, when the Reporting Justice and Napoleão Maia partially

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granted the appeal and, in this portion, granted the appeal, while Justice Sergio Kukina also granted in part the appeal and, in this portion, he denied it. This judgment was resumed on March 25, 2014, when Minister Ari Pargendler presented his vote, accompanying the reporting judge Napoleão Nunes Maia Filho, considering inapplicable the taxation of profit from foreign companies controlled by Vale, since international treaties against double taxation should prevail. The judgment session ended on April 24, 2014, when the First Panel of the STJ decided, by majority of votes, in favor of Vale. Waiting the decision to be published.

Chances of loss

Possible (regarding the remaining discussion which debt will not be subject to adherence to the tax recovery program).

Analysis of impact in the case of losing the suit/ Reasons for importance for the Company

In the event of a final unfavorable decision, regarding all arguments raised by the Company, the Brazilian Tax Authority may collect income taxes and social contributions on profits of subsidiaries and/or affiliates abroad, taking into account the principle of the due process of law in the specific administrative and in-court collection procedures. This impact refers to the period which is not object of dismissal/waiver, for adherence to the Special Installment Plan, corresponding to the amount of R\$ 1,438,234,037.07, as IRPJ, and R\$ 393,930,377.85, as CSLL (December/2013), totaling R\$ 1,832,164,414.92. Amounts related to debts in 1996 and 2002, the 2005 portion and 2013 are not included.

Amount provisioned (if any)

Not applicable.

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- Notes
- 1 On September 20, 2012, Vale received a summoning by the Federal Revenue of Brazil recognizing extinction of values related to Exchange rate variation, in the approximate value of R\$1.6 billion. Such extinction is due to the partially favorable decision issued in the judgment of an appeal (motion for stay) by the Company in this Writ of Mandamus 2003.51.01.002937-0, as described above in the item Main Facts .
- 2 The judgment of this direct claim of unconstitutionality (ADI) filed by the Confederação Nacional da Indústria (CNI) questioning constitutionality of article 74 in the Provisional Order 2.158-35/01 returned on April 3, 2013. On April 10, 2013, the result of such ADI was issued, and it was defined that article 74 is not applicable to affiliates located in countries without favored taxation (non-fiscal heavens), but is applicable to companies located in countries with favorable taxation (fiscal heavens). There was a decision for the retroactive nature of the sole paragraph of article 74 in the MP, implying the impossibility to apply this legislation to generating facts prior to 2002. On the same date, Extraordinary Appeals filed by Cooperativa Agropecuária Mourãoense - COAMO and EMBRACO were judged. The preliminary order of Vale was maintained under unanimous voting, as seen in an item 1.1.
- 3 - On December 18, 2013, in compliance with the terms in Law and 12.865/13, the Company filed a petition to the Superior Court of Justice requesting partial dismissal of the discussion and, also, waiving arguments under which the claim is grounded. On February 19, 2014, in the files of the Special Appeal, a partial waiver to the rights grounding the action was filed under terms required by Vale. The partial waiver produces effects in every tax contingency related to this issue, listed below

1.1) Development of Writ of Mandamus 2003.51.01.002937-0: Injunction no. 3.141

Court	Federal Supreme Court
Instance	3rd Instance
Date of filing	05/07/2012

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Parties to the claim	Vale (plaintiff) and Federal Government (defendant)
Values, assets or rights involved	Not applicable
Main factors	<p>On May 7, 2012, Vale filed for an Injunction to attempt to attribute suspensive effects to the Extraordinary Appeal filed in the Writ of Mandamus (item 1) aiming suspension of the applicability of amounts for IRPJ and CSLL being discussed.</p> <p>On May 9, 2012, Justice Marco Aurélio Mello , from the Federal Supreme Court granted the injunction in this sense. On May 25, 2012, the Union filed an appeal. On May 28, 2012, the Union filed an appeal (interlocutory appeal) against the decision granting the appeal. On June 8, 2012, Vale filed its response to this appeal. On April 10, 2013, there was a decision rejecting, unanimously, the Union Appeal (interlocutory appeal) and maintaining the injunction favorable to Vale. This decision was published on September 30, 2013 and no appeal was filed. Therefore, unless the judges reconsider their decision, the suspensive effect will have effects until judgment of the extraordinary appeal. On December 18, 2013, Vale filed the waiver petition for purposes of adhering to REFIS. On February 14, 2014, a decision was issued determining the filing of a copy of the partial waiver request and the approving decision issued under the main Writ of mandamus (item 1 above). On February 24, 2014, Vale provided requested documents and the files moved to be appreciated by the reporting judge.</p>
Probability of loss	Possible (regarding the remaining discussion, which debt will not be subject to adherence to the tax recovery program).
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	In the event of any unfavorable outcome, there is a chance to require guarantee for amounts under discussion. This impact relates to the period that is not subject to dismissal/waiver for adherence to the Special Installment Program.
Allocated amount (if any)	None.

### 2) Tax Assessment Notice no. 18471.001243/2007-69

Court	Tax Appeals Administrative Council
Instance	2nd administrative instance
Date of filing	12/10/2007



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Parties to the claim	National Tax Authority (plaintiff) and Vale (defendant)
Values, assets or rights involved	Total debt R\$ 1,832,164,414.92 (December 2013)
Main factors	<p>On November 12, 2007, Vale was made aware of the Tax Assessment Notice which object is the collection of supposed income tax and social contribution debts levied on the accounting gain regarding the ownership equity of foreign subsidiaries in the 1996 to 2002 base years.</p> <p>On December 10, 2007, Vale filed the defense (Impugnation), arguing that such requirements were not valid and that no penalty could be applied because the injunction issued in favor of Vale in the writ of mandamus no. 2003.51.01.002937-0 (item 1 above) was still in force. The Internal Revenue Trial Service (DRJ, for its acronym in Portuguese) partially granted the impugnation.</p> <p>On August 18, 2008, Vale filed an appeal. The National Tax Authority also filed an Appeal regarding the partial reduction of the social contribution collection.</p> <p>At the judgment of these appeals, held on May 19, 2010, some of Vale's arguments were not assessed by the Administrative Council of Tax Appeals - CARF, because, according to this entity, the matter was deemed to be subject to assessment by the Judicial Branch. Additionally, (i) Vale's argument regarding the running of the statute of limitations as far the collections of taxes referring to generating facts occurring in 1996 and 1997 were concerned, was rejected, (ii) the application of a fine against Vale was canceled, and (iii) the appeal from the National Tax Authority was dismissed.</p> <p>On September 26, 2011, Vale filed a new appeal (motion for clarification) stating the existence of omissions in the decision by CARF, and the appeal was rejected.</p> <p>On October 3, 2011, the National Tax Authority filed an appeal (special appeal) before the Superior Chamber of Tax Appeals against the CARF decision, in the portion that cancelled the penalty. Vale responded to the appeal filed by the National Tax Authority, as well as to the Superior Chamber against the CARF decision, regarding dismissal of the claim on the statute of limitations.</p> <p>On January 24, 2012, the Special Major Taxpayer</p>

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Office (DEMAC, for its acronym in Portuguese), ex officio, interpreting the decision of the Federal Regional Court of the 2nd Region in the writ of mandamus no. 2003.51.01.002937-0 (item 1 above) in the sense that there is an overlapping between the discussions in this administrative proceeding and in that writ of mandamus, rejected all administrative appeals and ordered the immediate collection of part of the credits that are currently object of Tax Assessment no. 0015197-06.2012.4.02.5101 (item 2.2). Therefore, the appeals filed by Vale and the National Tax Authority against the CARF decision have not been assessed by the Superior Chamber of Tax Appeals.

Vale filed a writ of mandamus (no. 0001899-44.2012.4.02.5101 item 2.1 below) to attempt to reverse the order of DEMAC and ensure the regular development of the administrative process. Alongside, the Company filed a request for reconsideration at DEMAC, which was denied and, ever since, the files are with the judge, waiting to proceed.

Probability of loss

Remote

Analysis of impact in case of loss/Reasons for the importance of the claim to the Company

In the event of any unfavorable outcome, the taxes on the accounting gain regarding the ownership equity of foreign subsidiaries discussed under this tax assessment notice may be levied. Any financial impact, however, shall only occur in case of a final unfavorable decision in the in-court collection claim.

Allocated amount (if any)

None.

2.1) Writ of mandamus. 0001899-44.2012.4.02.5101 related to the Tax Assessment Notice no. 18471.001243/2007-69

Court	28th Federal Court of Rio de Janeiro
Instance	1st Instance
Date of filing	02/06/2012
Parties to the claim	Vale (plaintiff) and DEMAC (defendant)
Values, assets or rights involved	Not applicable
Main factors	On February 6, 2012, Vale filed a Writ of Mandamus to suspend the order of DEMAC and ensure the

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development of the administrative proceeding no. 18471.001243/2007-69 (item 2 above). The injunction request was denied, and Vale filed an appeal (interlocutory appeal) against this decision and a request for reconsideration. Both were rejected. Currently, the files are with the judge, waiting to proceed.

Probability of loss	Possible.
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable
Allocated amount (if any)	None

2.2) Tax Collection no. 0015197-06.2012.4.02.5101 regarding the Tax Assessment Notice no. 18471.001243/2007-69

Court	5th Tax Collection Court of Rio de Janeiro
Instance	1st federal instance
Date of filing	03/13/2012
Parties to the claim	Federal Taxpayer Authority (plaintiff) and Vale (defendant)
Values, assets or rights involved	R\$ 1,832,164,414.96 (December/2013), value already included in the amount of the main administrative process described in item 2 above, added with legal fees.
Main factors	<p>On March 12, 2012, the National Tax Authority filed a claim to collect income taxes and social contributions presumably due, in view of the decision from DEMAC mentioned in item 2 above. On April 25, 2012, the National Tax Authority filed a petition requesting seizure of dividends to be distributed by Vale on April 30, 2012.</p> <p>On April 26, 2012, Vale filed a petition challenging the request from the National Tax Authority and offering, alternatively, a bank guarantee to secure the debt. On the same day, the court accepted the offering of the guarantee, presented by Vale on April 27, 2012.</p> <p>On May 8, 2012, the National Tax Authority presented a request to block monies through the BACENJUD system - through which the judge directly accesses all bank accounts in the country - that, upon objection by Vale, was rejected due to</p>

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the preliminary order granted by Minister Marco Aurélio de Mello, suspending application of tax credits, object of this enforcement (item 1.1. above). Vale then requested acknowledgement of the lack of need to guarantee the execution since application of credits is suspended and dismissal of the previously granted surety bond, granted by the Court. Faced with such decision, on May 14, 2012, Vale paid the bail. Due to the aforementioned injunction granted in the provisional remedy cited in item 1.1, the lawsuit has been stayed, as the national Tax Authority cannot collect non-applicable credits.

Probability of loss	Remote
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	In the event of any unfavorable outcome related to the injunction object of item 1.1 above, Vale may have to present a new guarantee of the amounts in question under this collection.
Allocated amount (if any)	None

3) Notice of Infraction nº 18471.000141/2008-15

Jurisdiction	Administrative Council of Fiscal Resources
Instance	2nd administrative instance
Date of filing	03/28/2008
Parties in the suit	Federal Revenue Secretariat (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	Total debt R\$ 14,216,698,702.56 (in November 2013, date adhering to REFIS)
Main facts	On February 29, 2008, Vale became aware of the tax assessment notice which object is the collection of supposed income tax and social contribution debts levied on the accounting gain regarding the ownership equity of foreign subsidiaries in the 2003 to 2006 base years.

On March 28, 2008, Vale filed the defense (impugnation), arguing, in short, that such requirements were not valid and the penalty applied inapplicable, because the injunction issued in favor of Vale in the writ of mandamus no. 2003.51.01.002937-0 was still in force (item 1). The Internal Revenue Trial Service (DRJ, for its acronym in Portuguese) rejected the impugnation.

On August 18, 2008, Vale filed an appeal against the decision, reinforcing the arguments included in

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its impugnation.

At the trial, in May 19, 2010, the Tax Appeals Administrative Council (CARF, for its acronym in Portuguese) annulled the decision by DRJ, determining a new decision be given, assessing the applicability of the International Convention to which Brazil is a signatory and which purpose is to avoid double taxation between countries, since this argument was not assessed by DRJ.

On September 26, 2011, the National Tax Authority filed an appeal (motion for clarification) against the CARF decision. National Tax Authority At the trial on October 3, 2011, CARF partially accepted the motion, only to clarify the omission e textually determine the nullity of the decision by DRJ.

On December 6, 2011, the National Tax Authority filed a petition that, the Judicial Branch while assessing an appeal (motion for clarification) in the writ of mandamus no. 2003.51.01.002937-0 (item 1 above), had acknowledged the simultaneous nature, that is, the identity between matters addressed in this administrative procedure and that judicial process, which, according to the National Tax Authority, would cause nullity of the decision by CARF that annulled the decision by DRJ and, therefore, again prevailing the DRJ decision rejecting Vale's impugnation, the process should be directed to the collection sector of the National Tax Authority.

On December 22, 2011, Vale filed a petition alleging that the Judicial Branch had not recognized said concurrency, reason why the claim by the National Tax Authority could not be accepted.

On January 18, 2012, the President of the 2nd Chamber of CARF issued a monocratic decision, taking for granted the arguments of the National Tax Authority to revoke the decision by CARF which annulled the decision by DRJ.

On January 25, 2012, Vale filed a writ of mandamus (item 3.1 below) alleging the illegality of the decision by the President of the 2nd Chamber of CARF, which was suspended due to a preliminary injunction obtained by VALE determining the regular processing of the administrative claim.

Alongside this writ of mandamus (item 3.1 below), in the administrative sphere, Vale filed an appeal (hierarchical) against the decision by the President of the 2nd Chamber of CARF, addressed to the Ministry

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of Finance. Regarding the writ of mandamus (item 3.1 below), the National Tax Authority filed a claim to suspend the injunction order (No. 0009426-51.2012.4.01.0000) and on March 13, 2012, a decision was published suspending the effectiveness of the injunction obtained by the Company in the writ of mandamus. Vale then filed an appeal (interlocutory appeal) in order to reverse such decision, which was denied.

On May 8, 2012, before publication of the unfavorable decision by the STJ, in the injunction related to item 1 and, thus, when the suspensive effect of the preliminary order granted was still in effect, the National Tax Authority, even with the suspended application of credits, distributed the Tax Assessment to collect amounts under discussion (item 3.2 below). Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1 above), with consequent suspension of applicability of amounts related to IRPJ and CSLL being questioned. On May 9, 2012, Justice Marco Aurélio Mello, from the Federal Supreme Court granted the injunction, confirmed by unanimity of votes on April 10, 2013. This decision was published on September 30, 2013 and no appeal was filed. Therefore, unless the judges reconsider their decision, the suspensive effect will have effects until judgment of the extraordinary appeal.

Chances of loss	Not applicable, as the debt has been eliminated upon adherence to REFIS (Special Installment Program under Law 12865/13)
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	Not applicable due to adherence to REFIS.
Amount provisioned (if any)	None

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3.1) Writ of mandamus. 0004826-69.2012.4.01.3400 related to the Tax Assessment Notice no. 18471.000141/2008-15

Court	14th Federal Court of the Federal District
Instance	1st Instance
Date of filing	01/25/2012
Parties to the claim	Vale (plaintiff) and President of the 2nd Chamber of the Tax Appeals Administrative Council (defendant)
Values, assets or rights involved	Not applicable
Main factors	<p>On January 25, 2012, Vale filed a writ of mandamus against the decision of the President of the 2nd Chamber of CARF (item 3 above). On January 27, 2012, an injunction order was issued to suspend the effects of the decision mentioned above and to determine the regular processing of administrative claims no. 18471.000141/2008-15 (item 3 above) and 12897.00868/2009-98 (item 4 below). The National Tax Authority filed a claim to suspend the injunction request (no. 0009426-51.2012.4.01.0000) and, on March 12, 2012, a decision was issued suspending the validity of the injunction obtained by the Company, in the writ of mandamus (item 3 above). Vale then filed an appeal (interlocutory appeal) which was rejected. After, in April 2012, a petition was filed notifying about the preliminary order granted by Minister Teori Zavascki, suspending collection of allegedly due values. The decision on the writ of mandamus is still pending. On November 25, 2013, a decision in favor of Vale was published.</p> <p>On December 18, 2013, Vale filed the waiver petition for purposes of adhering to REFIS. On February 13, 2014, the judge issued na order determining that he was not entitled to appreciate the waiver request as he understood that, after publication of the decision, the judge ends with his jurisdictional activity and should be limited to correcting possible material and calculation errors.</p>
Probability of loss	Not applicable due to adherence to REFIS.
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable due to adherence to REFIS.

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Allocated amount (if any) None

3.2) Development of Notice of Infraction no. 18471.000141/2008-15: Tax Assessment Notice no. 0023959-11.2012.4.02.5101

Court	7th Tax Collection Court of Rio de Janeiro
Instance	1st federal instance
Date of filing	3/13/2012
Parties to the claim	National Tax Authority (Plaintiff) and Vale (Defendant)
Values, assets or rights involved	R\$ 14,216,689,702.56 (in November 2013, date adhering to REFIS), without reduction factors provided for in the tax recovery program. Amount included in the main administrative procedure described in item 3 above.
Main factors	<p>On May 8, 2012, before publication of the unfavorable decision by the STJ, in the injunction related to item 1 and, thus, when the suspensive effect of the preliminary order granted was still in effect, the National Tax Authority, even with the suspended application of credits, filed a tax enforcement act to collect IRPJ and CSLL allegedly due, which, in their understanding, would be possible considering the decision by the President of the 2nd Chamber of CARF, mentioned in item 3 above.</p> <p>On May 11, 2012, Vale filed a petition informing the granting of the injunction by the STF suspending the applicability of credits (item 1.1 above) and, on the same date, a decision was pronounced suspending this tax collection. On December 18, 2013, Vale presented a petition claiming the loss of object of the collection due to adherence to REFIS. On February 24, 2014, an order was issued determining (a) the National Treasury should comment regarding the notified payment, and (b) the presentation by Vale of a legible power of attorney, which has been complied with by the Company. We are waiting for the National Treasury to comment on the order</p>
Probability of loss	Not applicable, as the debt has terminated upon adherence to REFIS.
Analysis of impact in case of loss/Reasons	Not applicable, as the debt has terminated upon adherence to REFIS.



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for the importance of the claim to the Company

Allocated amount (if any)                      None

4) Notice of Infraction nº 12897.000868/2009-98

Court	Administrative Tax Revenue Council
Instance	2nd administrative instance
Date of filing	01/11/2010
Parties in the suit	Federal Revenue Secretariat (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	Total debt R\$ 17,656,913,530.85 (November 2013, date adhering to REFIS)
Main facts	On December 14, 2009, Vale became aware of the tax assessment notice which object is the collection of supposed income tax and social contribution debts levied on the accounting gain regarding the ownership equity of foreign subsidiaries in the 2007 base year.

On January 11, 2010, Vale filed the response (impugnation), arguing, in short, that such requirements were not valid and the penalty was non-applicable because the injunction issued in favor of Vale in the writ of mandamus no. 2003.51.01.002937-0 was still in force (item 1 above). The Internal Revenue Trial Service (DRJ, for its acronym in Portuguese) rejected the impugnation against the company.

On July 8, 2010, Vale filed an appeal against this decision, reinforcing the arguments included in its impugnation.

On November 23, 2011, while judging the appeal, CARF decided to send the files back to DRJ so that a new decision would be issued to replace the previous one, and that the applicability of the Convention to avoid double taxation be assessed.

On December 6, 2011, the National Tax Authority filed a petition that, while judging the an appeal (interlocutory appeal) in the files of the writ of mandamus no. 2003.51.01.002937-0 (item 1 above), the Court had had acknowledged the simultaneous nature, that is, the identity between matters addressed in this administrative procedure and that judicial process, which, according to the National Tax Authority, would cause nullity of the



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decision by CARF that annulled the decision by DRJ and, therefore, again prevailing the DRJ decision rejecting Vale's impugnation, the process should be directed to the collection sector of the National Tax Authority.

On December 22, 2011, Vale filed a petition alleging that the Judicial Branch had not recognized said concurrency, reason why the claim by the National Tax Authority could not be accepted.

Upon analysis of the claims by both parties, the President of the 2nd Chamber of CARF issued a decision, accepting the arguments of the National Tax Authority so as to revoke the CARF decision annulling the DRJ decision.

On January 25, 2012, Vale filed a writ of mandamus (item 3.1 above) alleging the illegality of the decision by the President of the 2nd Chamber of CARF, which was suspended due to a preliminary order obtained by Vale determining also the regular processing of the administrative claims. In addition to this writ of mandamus (item 3.1 above), in the administrative sphere, Vale filed an appeal (hierarchical) against the decision by the President of the 2nd Chamber of CARF, addressed to the Ministry of Finance.

Regarding the writ of mandamus (item 3.1. below), the National Tax Authority (Union) filed a claim to suspend the injunction order (No. 0009426-51.2012.4.01.0000) and on March 13, 2012, a decision was published suspending the effectiveness of the injunction obtained by the Company in the writ of mandamus. Vale then filed an appeal (interlocutory appeal) in order to reverse the decision, which was denied.

On May 8, 2012, before publication of the unfavorable decision by the STJ, in the injunction related to item 1 and, thus, when the suspensive effect of the preliminary order granted was still in effect, the National Tax Authority, even with the suspended application of distributed the Tax Assessment to collect amounts under discussion (item 4.4)

Vale filed for injunction (item 1.1 above) to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1 above), with consequent suspension of applicability of amounts related to IRPJ and CSLL being discussed. On May 9, 2012, Justice Marco Aurelio Mello, of the Federal

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Supreme Court, granted the injunction, confirmed by unanimity of votes on April 10, 2013. This decision was published on September 30, 2013 and no appeal was filed. Therefore, unless the judges reconsider their decision, the suspensive effect will have effects until judgment of the extraordinary appeal.

Chances of loss Not applicable, as the debt has terminated upon adherence to REFIS.

Analysis of impact in the case of losing the suit/ Reasons for importance for the Company Not applicable, as the debt has terminated upon adherence to REFIS.

Amount provisioned (if any) None.

4.1) Writ of mandamus 2011.51.01.005614-9 related to the Tax Assessment Notice no. 12897.000868/2009-98

Court 32nd Federal Court of Rio de Janeiro

Instance Awaiting admissibility judgment to file at 2nd instance

Date of filing 04/29/2011

Parties to the claim Vale (Plaintiff) and National Tax Authority (Defendant)

Values, assets or rights involved Amount already included in the value of the main administrative process described in item 4 above.

Main factors On March 15, 2011, Vale received a letter collecting income taxes and social contributions which, according to the National Tax Authority, would not be the object of the appeal filed by the Company in the administrative procedure. (item 4 above)

On March 23, 2011, Vale filed a petition requesting the cancellation of the collection on the grounds that the claimed values were indeed covered by the appeal.

On April 15, 2011, Vale received a notice from the National Tax Authority announcing the maintenance of the collection.

On April 29, 2011, Vale filed a writ of mandamus to suspend the collection. The preliminary order requested in this writ of mandamus was rejected.

On May 25, 2011, the Company filed an appeal (interlocutory appeal) against the decision that rejected the request for injunction to suspend the collection. On July 15, 2011, the request to suspend



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the effects of the previous decision in this appeal was rejected as well. On January 15, 2013, the ruling denying the writ of mandamus was issued. On January 30, 2013, Vale filed an appeal against the decision. On March 14, 2013, the judge received the appeal and attributed suspensive effect. On December 18, 2013, Vale filed the waiver petition for purposes of adhering to REFIS. The files were remitted to be appreciated by the judge.

Despite of the unfavorable decision issued in this writ of mandamus, application of tax credits discussed herein is suspended due to the STF decision (item 1.1 above).

Probability of loss	Not applicable, as the debt has terminated upon adherence to REFIS.
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable, as the debt has terminated upon adherence to REFIS.
Allocated amount (if any)	None.

4.2) Tax Collection no. 2011.51.01.518168-2 regarding the Tax Assessment Notice no. 12897.000868/2009-98 dated 1/11/10

Court	11th Tax Collection Court of Rio de Janeiro
Instance	1st federal instance
Date of filing	07/08/2011
Parties to the claim	Federal Taxpayer Authority (plaintiff) and Vale (defendant)
Values, assets or rights involved	R\$ 33,903,846.09 (November 2013, date adhering to REFIS) included in the amount of the main administrative process described in item 4 above, added with legal fees.

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Main factors	<p>On July 8, 2011, the National Tax Authority filed a claim to collect income taxes and social contributions presumably due, in view of the collection letter mentioned in item 4.1. above.</p> <p>On August 29, 2011, Vale submitted a surety bond guarantee regarding the tax collection, which was expressly approved by the National Tax Authority.</p> <p>On September 28, 2011, Vale filed a defense (motion to stay under No. 2011.51.01.509917-5), requiring the suspension of the collection until the final judgment of the main writ of mandamus (item 1 above) and the cancellation of the Company's Debt Certificate due to a material error, in view of an inconsistency of the amounts indicated therein.</p> <p>On September 13, 2012, the National Tax Authority presented its response to Vale's motion for collection.</p> <p>Applicability of tax credits discussed herein is suspended due to the preliminary order by the STF (item 1.1 above), enabling cancellation, on July 4, 2013 of the surety bond presented as guarantee. On December 18, 2013, Vale filed a petition claiming loss of objecting of this collection due to adherence to REFIS.</p>
Probability of loss	Not applicable, as the debt has terminated upon adherence to REFIS.
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable, as the debt has terminated upon adherence to REFIS.
Allocated amount (if any)	None.
4.3) Motion to Stay Collection no. 2011.51.01.509917-5 regarding the Tax Assessment Notice no. 12897.000868/2009-98 dated 01/11/10	
Court	11th Tax Collection Court of Rio de Janeiro
Instance	1st federal instance
Date of filing	09/28/2011
Parties to the claim	Vale (plaintiff) and National Tax Authority (Defendant)
Values, assets or rights involved	Value already mentioned in item 4.2 above.
Main factors	On September 28, 2011, Vale filed a defense (motion to stay)





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requiring the suspension of the collection until the final judgment of the main writ of mandamus (item 1 above) and the cancellation of the Company's Debt Certificate, that grounds this tax collection, due to a material error, in view of an inconsistency of the amounts indicated therein. On September 13, 2012, the National Tax Authority filed response to the motion for stay. Vale commented on the response by the National Tax Authority (response) and filed an appeal (motion for stay), requesting that the court commented about the suspension request for the collection based on the STF decision (item 1.1 above). The appeal was granted and the process was suspended. On December 18, 2013, Vale filed a petition claiming loss of objecting of this collection due to adherence to REFIS.

Probability of loss Not applicable, as the debt has terminated upon adherence to REFIS.

Analysis of impact in case of loss/Reasons for the importance of the claim to the Company Not applicable, as the debt has terminated upon adherence to REFIS.

Allocated amount (if any) None.

4.4) Development of the Notice of Infraction no. 12897.000868/2009-98: Tax Assessment 0023958-26.2012.4.02.5101

Court 7th Tax Collection Court of Rio de Janeiro

Instance 1st federal instance

Date of filing 05/8/2012

Parties to the claim National Tax Authority (Plaintiff) and Vale (Defendant)

Values, assets or rights involved R\$ 17,623,009,684.76 (November 2013, date adhering to REFIS) included in the main administrative procedure described in item 4 above, added with legal fees.

Main factors On May 8, 2012, before publication of the unfavorable decision by the STJ, in the injunction related to item 1 and, thus, when the suspensive effect of the preliminary order granted was still in effect, the National Tax Authority, even with the suspended application of credits, filed a tax enforcement act to collect IRPJ and CSLL allegedly due, which, considering the administrative decision

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mentioned in item 4 above.

Applicability of tax credits discussed herein is suspended due to a preliminary order by the STF (item 1.1 above). Vale filed a petition claiming suspension of the collection based on this decision. The claim was granted and the process is suspended. . On December 18, 2013, Vale filed a petition claiming loss of objecting of this collection due to adherence to REFIS. On February 20, 2014, an order was issued determining (a) the National Treasury should comment regarding the notified payment, and (b) the presentation by Vale of a legible power of attorney, which has been complied with by the Company. The National Treasury failed to comment under the legal term, and on March 26, 2014, a decision was issued determining suspension of the process.

Probability of loss	Not applicable, as the debt has terminated upon adherence to REFIS.
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable, as the debt has terminated upon adherence to REFIS.
Allocated amount (if any)	None.

5) Notice of Infraction no. 12897.000023/2010-36

Jurisdiction	Administrative Tax Revenue Council
Instance	2nd administrative instance
Date of filing	02/12/2010
Parties in the suit	Federal Revenue Secretariat (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	Total debt R\$ 4,691,806,328.15 (November 2013, date adhering to REFIS)
Main facts	On January 18, 2010, Vale became aware of the tax assessment notice which purpose is the collection of alleged income tax and social contribution debts levied on the accounting gain regarding the ownership equity of foreign subsidiaries during the 2008 base year.

On February 2, 2010, Vale filed a defense (impugnation), arguing in short that such requirements were not valid and that penalty is non-applicable because the injunction issued in favor of Vale in the writ of mandamus no.

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2003.51.01.002937-0 was still in force (item 1 above). The Internal Revenue Trial Service (DRJ, for its acronym in Portuguese) rejected the impugnation.

On July 8, 2010, Vale filed an appeal against this decision, reinforcing the arguments previously submitted in the impugnation. Such appeal is still pending judgment.

On December 6, 2011, the National Tax Authority filed a petition alleging that, while judging the appeal (motion for clarification) in the writ of mandamus no. 2003.51.01.002937-0 (item 1 above), the Court had acknowledged the simultaneous nature, that is, the identity between matters addressed in this administrative procedure and that judicial process, requiring the claim to be directed to the Tax Authority collection sector.

On January 17, 2012, Vale filed a petition alleging that the Court had not recognized said simultaneous nature and that the claim by the National Tax Authority could not be accepted.

The President of the 3rd Chamber of the 1st Section of CARF determined that the claim be directed to the National Tax Authority Office of origin. On March 16, 2012, Vale received a letter requiring the payments of the amounts *sub judice*.

On May 8, 2012, before publication of the unfavorable decision by the STJ, in the injunction related to item 1 above and, thus, when the suspensive effect of the preliminary order granted was still in effect, the National Tax Authority, even with the suspended application of credits, filed a tax enforcement act to collect credits in question (item 5.6).

Vale filed for injunction (item 1.1 above) to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1 above), with consequent suspension of applicability of amounts related to IRPJ and CSLL being discussed. On May 9, 2012, Justice Marco Aurélio Mello, from the Federal Supreme Court granted the injunction, confirmed by unanimity of votes on April 10, 2013. This decision was published on September 30, 2013 and no appeal was filed. Therefore, unless the judges reconsider their decision, the suspensive effect will have effects until judgment of the extraordinary appeal.

Chances of loss

Not applicable, as the debt has terminated upon

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	adherence to REFIS.
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	Not applicable, as the debt has terminated upon adherence to REFIS.
Amount provisioned (if any)	None.
5.1) Writ of mandamus 2010.51.01.017597-3 related to the Tax Assessment Notice no. 12897.000023/2010-36, dated 02/12/10:	
Court	Federal Regional Court of the 2nd Region
Instance	2nd Instance
Date of filing	09/28/2010
Parties to the claim	Vale (Plaintiff) and National Tax Authority (Defendant)
Values, assets or rights involved	Amount already included in the value of the main administrative process (item 5 above, and legal fees).
Main factors	<p>On August 19, 2010, Vale received a letter requesting the payment of income taxes and social contributions which, according to the National Tax Authority, would not be the object of the appeal previously filed by the Company in the administrative procedure (item 5 above).</p> <p>On August 23, 2010, Vale filed a petition requesting the cancellation of the collection on the grounds that the claimed values were indeed covered by the appeal, which judgment is still pending (item 5 above).</p> <p>Given the acceptance of the arguments submitted by Vale, related to calculation errors, the National Tax Authority reduced the amount charged and issued a new collection letter, received by Vale on September 6, 2010.</p> <p>Due to the partial maintenance of the collection, on September 28, 2010, Vale filed a writ of mandamus. The injunction request was granted to suspend the collection of debts required by the National Tax Authority.</p> <p>Against this decision, the National Tax Authority filed an appeal (interlocutory appeal), which was denied.</p>



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On December 16, 2011, an unfavorable judgment was rendered, as the Court deemed that such values would not be the object of the administrative appeal filed by the Company. (item 5 above)

Against this decision, Vale filed an appeal on January 9, 2012. After the reply by the appellee (National Tax Authority), the files were remitted to the TRF 2nd Region, to judge the appeal. On December 18, 2013, Vale filed the waiver petition for purposes of adhering to REFIS. On March 7, 2014, a decision was issued approving the waiver. On March 28, 2014, files were remitted to the National Tax Authority.

Despite of the unfavorable decision issued in this writ of mandamus and the pending judgment of the appeal and the possibility of an appeal being filed by the National Tax Authority against the decision approving the waiver, , application of tax credits discussed herein is suspended due to the STF decision (item 1.1 above).

Probability of loss	Not applicable, as the debt has terminated upon adherence to REFIS.
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable, as the debt has terminated upon adherence to REFIS.
Allocated amount (if any)	None.

5.2) Tax Collection no. 0011487-75.2012.4.02.5101 regarding the Tax Assessment Notice no. 12897.000023/2010-36 dated 02/12/10

Court	1st Tax Collection Court of Rio de Janeiro
Instance	1st federal instance
Date of filing	01/26/2012
Parties to the claim	Federal Taxpayer Authority (plaintiff) and Vale (defendant)
Values, assets or rights involved	R\$ 21,731,827.64 (November 2013, date adhering to REFIS) included in the amount of the main administrative process described in item 5 above, added with legal fees.
Main factors	On January 26, 2012, the National Tax Authority filed a claim to collect income taxes and social

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contributions presumably due, in view of the collection letter mentioned in item 5.1.

On February 2, 2012, Vale posted a bond to secure the tax collection claim and on February 6, 2012, the Court issued a decision considering such bond. Applicability of tax credits discussed herein is suspended due to a preliminary order by the STF (item 1.1 above). On May 7, 2013, the decision was issued suspending the process based on the STF decision and dismissing the need of guarantee of collected values, also authorizing cancellation of the surety bond presented by Vale. On December 18, 2013, Vale filed the waiver petition for purposes of adhering to REFIS. On January 24, 2014, the files were remitted to the National Tax Authority.

Probability of loss	Not applicable, as the debt has terminated upon adherence to REFIS.
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable, as the debt has terminated upon adherence to REFIS.
Allocated amount (if any)	None.

5.3) Motion to Stay Collection no. 0013552-43.2012.4.02.5101 regarding the Tax Assessment Notice no. 12897.000023/2010-36 dated 02/12/10

Court	1st Tax Collection Court of Rio de Janeiro
Instance	1st federal instance
Date of filing	03/08/2012
Parties to the claim	National Tax Authority (Defendant) and Vale (Plaintiff)
Values, assets or rights involved	Value already mentioned in item 5.2 above.
Main factors	On March 8, 2012, Vale filed a defense (motion to stay) against the tax collection in item 5.2 above. Among other arguments, Vale argued that the applicability of tax credits under discussion is suspended due to a preliminary order by the STF (item 1.1. above).

On May 9, 2013, the decision was published extinguishing the motion for stay, and the court understood that in view of the suspended applicability of credits and the decision issued in the collection an (item 5.2 above) authorizing

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cancellation of the guarantee, Vale had lost its legal interest in the motion, noting yet that new motions for stay could be filed should the collection follow its regular course (in case of the suspension determined by the STF ends).

On August 30, 2013, the final decision was certified and the process was offset. Action ended..

Probability of loss	Action ended
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Action ended
Allocated amount (if any)	None

5.4) Tax Collection no. 0011476-46.2012.4.02.5101 regarding the Tax Assessment Notice no. 12897.000023/2010-36 dated 02/12/10

Court	4th Tax Collection Court of Rio de Janeiro
Instance	1st federal instance
Date of filing	01/26/2012
Parties to the claim	Federal Taxpayer Authority (plaintiff) and Vale (defendant)
Values, assets or rights involved	R\$ 60,325,116.23 (November 2013, date adhering to REFIS), as IRPJ, value already included in the amount of the main administrative process described in item 5 above, added with legal fees.
Main factors	On January 26, 2012, the National Tax Authority filed a claim to collect income tax presumably due, in view of the collection letter mentioned in item 5.1, requesting the blockage of Vale credits in procedure no. 20035101.024181-3, underway at the 12th Federal Court of Rio de Janeiro. On February 2, 2012, Vale entered the records, filing a surety bond to guarantee collection.  On May 8, 2012, before publication of the unfavorable decision by the STJ, in the injunction related to item 1 and, thus, when the suspensive effect of the preliminary order granted was still in effect, the judge, upon request by the National Tax Authority, blocked on line R\$ 55,654,046.21 in cash, through the BACENJUD system - through which the judge directly accesses all bank accounts in the country. Vale filed an appeal (interlocutory appeal)



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against this decision. The applicability of tax credits under discussion is suspended according to a preliminary order by the STF (item 1.1 above), reason why on May 14, 2012, a court order suspended the lawsuit.

On May 14, 2014, Vale filed a petition claiming the release of the value blocked online. On May 15, 2013, the Surety Bond was returned to the Company and, subsequently, an order was issued determining that the National Tax Authority should comment regarding the claim to release the blocked value. On June 18, 2013, the National Tax Authority commented contrary to the claim to cancel the online blocking. On July 9, 2013, a decision was issued cancelling the online blocking of Vale credits in procedure no. 2003.5101.024181-3, however, the order maintained the online blocking. On December 18, 2013, Vale filed a petition claiming loss of objecting of this collection due to adherence to REFIS.

Probability of loss	Not applicable, as the debt has terminated upon adherence to REFIS
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Based on legal determination, due to adherence to the tax recovery program (REFIS), the value deposited judicially, resulting from money attachment, will be converted into income in favor of the Federal Government, becoming final payment, upon application of reduction factors determined by Law 12.865/13. Possible remaining balance may be raised by Vale
Allocated amount (if any)	None.

5.5) Motion to Stay Collection no. 0013553-28.2012.4.02.5101 regarding the Tax Assessment Notice no. 12897.000023/2010-36 dated 02/12/10

Court	1st Tax Collection Court of Rio de Janeiro
Instance	1st federal instance
Date of filing	03/08/2012
Parties to the claim	National Tax Authority (Defendant) and Vale (Plaintiff)
Values, assets or rights involved	Value already mentioned in item 5.4 above.

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Main factors	<p>On March 8, 2012, Vale filed a defense (motion to stay) against the tax collection in item 5.4 above.</p> <p>The applicability of tax credits being discussed is suspended by a decision by the STF (item 1.1 above), reason why on May 10, 2012 a decision suspended the suit. On December 18, 2013, Vale filed the waiver petition for purposes of adhering to REFIS.</p>
Probability of loss	Not applicable, as the debt has terminated upon adherence to REFIS
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Based on legal determination, due to adherence to the tax recovery program, the value deposited judicially, resulting from money attachment, will be converted into income in favor of the Federal Government, becoming final payment, upon application of reduction factors determined by Law 12.865/13. Possible remaining balance may be raised by Vale.
Allocated amount (if any)	None.

5.6) Development of Notice of Infraction no. 12897.000023/2010-36: Tax Assessment Notice no. 0023974-77.2012.4.02.5101

Court	1st Tax Collection Court of Rio de Janeiro
Instance	1st federal instance
Date of filing	05/08/2012
Parties to the claim	National Tax Authority (Plaintiff) and Vale (Defendant)
Values, assets or rights involved	R\$ 4,609,749,384.28 (November 2013, date adhering to REFIS), value included in the main administrative procedure described in item 5 above, added with legal fees)
Main factors	<p>On May 8, 2012, before publication of the unfavorable decision by the STJ, in the injunction related to item 1 and, thus, when the suspensive effect of the preliminary order granted was still in effect, the National Tax Authority filed a tax assessment notice to collect the amounts of IRPJ and CSLL supposedly due, considering the administrative decision mentioned in item 5 above.</p> <p>The Tax Authority filed a request to block and seize monies through the BACENJUD system, which was denied. Vale informed in the files that the applicability of tax credits is suspended by a preliminary order by the STF (item 1.1 above), which caused the judge to determine suspension of</p>

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the collection.

On May 11, 2012, Vale filed a petition informing about the attribution of suspensive effect to the extraordinary appeal filed in the writ of mandamus no. 0002937-09.2003.4.02.5101 due to preliminary order request filed in the (items 1 and 1.1 above) and requesting suspension of the enforcement, which was granted on the decision on May 17, 2012. On May 22, 2012, Vale filed an appeal (motion for clarification), which was accepted to clarify that the enforcement will remain suspended until notice of the final judgment of the extraordinary appeal filed by Vale (item 1 above). On December 18, 2013, Vale filed the waiver petition for purposes of adhering to REFIS.

Probability of loss	Not applicable, as the debt has terminated upon adherence to REFIS
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable, as the debt has terminated upon adherence to REFIS
Allocated amount (if any)	None.

5.7) Development of Notice of Infraction no. 12897.000023/2010-36: Writ of mandamus no. 35681-31.2012.4.01.3400

Court	1st Tax Collection Court of the Federal District
Instance	1st federal instance
Date of filing	07/13/2012
Parties to the claim	Vale (Defendant) and National Tax Authority (Plaintiff)
Values, assets or rights involved	Not applicable
Main factors	On July 13, 2012, Vale filed a writ of mandamus to annul the measure taken by the President of the 3rd Chamber of the 1st CARF Section, which ordered the early dismissal of administrative process no. 12897.000.023/2019-36 (item 5).

On July 19, 2012, a decision denied the injunction that had not been requested by the Company. Vale filed a petition for reconsideration, in an attempt to correct the decision that, by mistake, rejected an alleged request of preliminary order which was not even made. However, the request was denied.

In view of this decision on August 22, 2012, Vale

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filed an appeal, which was not granted. On July 8, 2013, the decision was published determining the claim was inapplicable and extinguishing the suit. Vale filed an appeal (motion for stay) and, after submission of an opinion by the Federal Prosecution Office, the files were remitted to the judge's office. On July 8, 2013, an unfavorable decision was issued, and on July 25, 2013, Vale filed an appeal. Files were received by the Federal Regional Court on October 18, 2013 and we are waiting the judgment on the petition notifying adherence to REFIS.

Probability of loss	Not applicable, as the debt has terminated upon adherence to REFIS
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable, as the debt has terminated upon adherence to REFIS
Allocated amount (if any)	None.

6) Administrative Proceeding no. 16682.721173/2013-04

Court	Office of Large Taxpayers - DEMAC / RJ
Instance	1st Administrative Instance
Date of filing	11/14/2013
Parties to the claim	Federal Revenue (plaintiff) and Vale (defendant)
Values, assets or rights involved	R\$ 1,158,135,533.96 (December/2013REFIS).
Main factors	On November 14, 2013, the Office for Large Taxpayers - body of the Federal Tax Authority - filed an Act of Infringement to collect a fine due to alleged omissions and errors in data presented in magnetic files, related to operations carried out in calendar years 2008, 2009, and 2010. Magnetic files were presented to prove the relation between entrance and exit tax documents supporting the PIS and COFINS credit operation requested in the refund claim. On December 13, 2013, Vale submitted its defense (impugnation), based on the following arguments: (i) the fine was applied in a wrong way; (ii) this is an alleged continuous infringement, which would cause reduction to the fine; (iii) infringement against the principles of proportionality and reasonability; (iv) contradiction

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between the checking term and the fiscal statement generating the act of infringement and decisions regarding claimed PIS and COFINS credits, (v) impossibility to apply a fine due to insufficient description of goods; and (vi) mistakes made by the supervision, while calculating gross income. On December 16, 2013, the files were forwarded to the Judgment Unit of the Federal Revenue Office of Brazil, in Ribeirão Preto - SP, where they wait to be appreciated.

Probability of loss	Possible.
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable.
Allocated amount (if any)	Not applicable.
Notes	Resulting from Civil Investigation conducted by the Federal Prosecution Office no. 0718500.2012.0059

7) Administrative Proceeding no. 16682.721227/2013-23

Court	Office of Large Taxpayers - DEMAC / RJ
Instance	1st Administrative Instance
Date of filing	11/14/2013
Parties to the claim	Federal Revenue (plaintiff) and Vale (defendant)
Values, assets or rights involved	R\$ 607,344,889.57 (December/2013REFIS)
Main factors	On November 14, 2013, the Office for Large Taxpayers - body of the Federal Tax Authority - filed an Act of Infringement to collect a 50% fine over a declined claim related to PIS and COFINS credit refund linked to exporting operations in the period between the first quarter 2008 and the fourth quarter 2010. On December 13, 2013, Vale submitted its defense (impugnation), based on the following arguments: (i) lack of final credit creation, (ii) controversial case law regarding the concept of input for purposes of PIS and COFINS credit and difficulties faced by the Company regarding its right to credit and compensations applied; (iii) lack of proportionality in the fine; (iv) fine applied separately, as a means to threaten the taxpayer. On December 16, 2013, the files were forwarded to

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the Judgment Unit of the Federal Revenue Office of Brazil, in Ribeirão Preto - SP. On March 21, 2014, the files were forwarded to the Guiding and Tax Assessment Division of the Office for Large Taxpayers of the Federal Revenue of Brazil in Rio de Janeiro - DEMAC/RJ, where they wait to be appreciated.

Probability of loss	Possible.
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable.
Allocated amount (if any)	Not applicable.
Notes	Derived from MPF nº 0718500.2012.00599

**(iii) Civil**

The tables below present a description of individual civil nature processes considered relevant to the business of the company and/or its subsidiaries.

1) Claim no. 0063023-34.2008.8.19.0001

Jurisdiction	41st Civil Court of the Court of Justice of Rio de Janeiro
Instance	1st Instance
Date of filing	03/17/2008
Parties in the suit	Vale (plaintiff) and Movimento dos Sem Terra - MST (defendant)
Amounts, goods or rights involved	Protection of the company's assets and guarantee of its operations
Main facts	Vale filed a suit with a request for anticipated relief obliging the defendant to cease attacks, violent acts or incitements which cause the operational stoppage of the company by the MST. The claim for anticipated relief was granted, establishing that the MST must refrain from such acts. The MST failed to comply with the decision, reason why Vale

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	requested an increase in the established fine in the event of noncompliance, which was granted by the court.
	Recently, both parties engaged into an effort to come to a possible settlement for this case.
Chances of loss	Remote
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	The lawsuit was initiated in order to ensure the protection of the assets of the company and its operational activities. A possible unfavorable decision can increase the exposure of the company to MST attacks.
Amount provisioned (if any)	None.
2) Claim no. 0015963-69.2006.4025101	
Jurisdiction	7th Specialized Panel of the Federal Circuit Court of Appeals of the 2nd Region (Court of Origin: 30th Court of the Federal Court of Rio de Janeiro)
Instance	2nd Instance
Date of filing	08/18/2006
Parties in the suit	Federal Rail Network (Rede Ferroviária Federal S.A.), succeeded by the Federal Union (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	R\$ 3,885,191,684.41
Main facts	The plaintiff filed a claim against the Company to receive an indemnity claiming that it suffered losses arising out of contractual default on the part of Vale.
	The contract concluded between the parties involved railway transposition in the city of Belo Horizonte.
	The parties have reached a settlement, through which the construction costs of the new railroad segment will be offset from an eventual conviction of Vale, if any, if the claim is judged in favor of the Federal Government. This agreement was legally approved. On June 25, 2012, a sentence rendered the lawsuit unfounded. The Federal Government filed an appeal that is awaiting judgment.
Chances of loss	Remote
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	Any unfavorable decision could generate a financial loss for the company, in the light of the amounts involved.





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Amount provisioned (if any)	None
3) Claim no. 0009362-71.1997.4.02.5001	
Jurisdiction	5th Panel of the Federal Circuit Court of Appeals of the 2nd Region
Instance	2nd Instance
Date of filing	11/10/1997
Parties in the suit	Federal Public Prosecutor Espírito Santo (plaintiff) and Federal Union, Gerdau, Açominas S.A., Companhia Siderúrgica de Tubarão, Usinas Siderúrgicas de Minas Gerais S.A., Vale, Odacir Klein, Luis Andre Rico Vicente, Jorge Eduardo Brada Donato, José Armando Figueiredo Campos, Rinaldo Campos Soares, João Jackson Amaral, Claudio José Anchieta de Carvalho Borges, Ivo Costa Serra and Companhia Docas do Espírito Santo - CODESA (defendants)
Amounts, goods or rights involved	Incalculable amount application for annulment of the concession contract for use of port terminals for the Tubarão Complex.
Main facts	This is a Public Civil Action which aims to annul the authorization by which Vale and some of the other defendants operate the Port Terminal at Praia Mole, in the State of Espírito Santo. In November 2007, after 10 years of conducting the proceedings, there was a decision judging the requests to be inapplicable and recognizing the validity of concession contracts that allow exploitation of port terminals located in Praia Mole. On July 3, 2012, the decision was upheld by the Federal Circuit Court of Appeals of the 2nd Region (TRF2) when the appeal filed by the Prosecutor's office was heard, filed against the decision by the TRF2, on October 23, 2012, special (STJ) and extraordinary (STF) appeals. Both appeals await at the TRF2 to be analyzed regarding applicability and subsequent forwarding to the STJ and STF, respectively to be appreciated.
Chances of loss	Remote
Analysis of impact in the case of losing the suit/ Reasons why it is relevant to the Company	Incalculable amount
Amount provisioned (if any)	None

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4) Claim no. 0024892-89.2011.8.13.0570

Court	1st Civil Court of the District of Salina / MG
Instance	1st Instance
Date of filing	09/14/2011
Parties in the suit	Minas Gerais State's Prosecutor (Plaintiff), Vale S.A., Minas Gerais Land Institute - ITER, Manoel da Silva Costa Junior, Evandro Carvalho, Mauro Eurípedes Rocha Mendes, Ricardo de Carvalho Rocha, Luciana Rocha Mendes, Orozino Marques de Carvalho, Adelzuih Marques Santos, Altemar Alves Ferreira, Breno Rodrigues Mendes (Defendants).
Amounts, goods or rights involved	Compensation for damages to the State of Minas Gerais in the minimum amount of R\$ 200 million, civil fine in an amount of no less than R\$ 600 million, plus the lands acquired by Vale.
Main facts	<p>This is a Public Civil Action filed by the State's Prosecutor (MP) against Vale and other 10 defendants, in which the Prosecutor claimed that <i>an organized group of people acted with the intention of illegally taking ownership of lands belonging to the State of Minas Gerais</i>. The MP requested an injunction determining defendants' <u>unavailability, with the exception of Vale's</u>, up to R\$ 200,000,000.00, in addition to the search and seizure of tangible properties and the lifting of tax and bank secrecy. The petition was granted by the court and upheld by Minas Gerais' Court of Justice.</p> <p>At the end, the Prosecutor petitioned the <i>stay of all effects with consequent annulment of all agricultural title that had been issued by the ITER involving the lands located in the Municipalities of Salinas, Santa Cruz de Salinas, Padre Carvalho, Fruta de Leite, Rubelita, between January 2007 and August 2011</i>; that the ITER was convicted <i>to hire, at their own expense, a specialized company to audit all legitimate titles issued by the State of Minas Gerais, whose amount could correspond to R\$ 200,000,000.00, a civil fine in the amount of no less than R\$ 600,000,000.00, the loss of public roles and positions, the stay of political rights, and a ban from providing service or benefitting in any way from the government</i>. Vale filed its defense (objection) on March 15, 2012 and the decision has not been issued yet.</p>
Chances of loss	Possible
Analysis of impact in the case of losing the suit/ Reasons why it is relevant to the	Damages to the Company's image as its name is associated with land-grabbing in the Northern region of the State of Minas Gerais, and due to the annulment of acquisition and loss of amounts paid

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Company	by Vale (approximately R\$ 35 million)
Amount provisioned (if any)	None
5) Special Appeal 1.262.401 - BA	
Court	Superior Court of Justice
Instance	3rd instance
Date of filing	08/26/2005
Parties in the suit	Interunion Capitalização S.A. (plaintiff) and Companhia Paulista de Ferro Ligas CPFL (defendant)
Amounts, goods or rights involved	R\$ 921,165,598.90.
Main facts	Interunion filed a collection claim against CPFL (Vale affiliate) to receive R\$248,968,222.18, corresponding to 200 debentures object of the agreement that, although named Forward Purchase and Sale of Debentures, was indeed a debenture Lease Agreement. The defense (motion for stay) filed by CPFL was rejected, causing the filing of an appeal to the Court of Justice of Bahia. While judging this appeal, the Court of Justice of Bahia sustained the rejecting decision, causing the filing of a special appeal (STJ) by CPFL. STJ accepted the special appeal by CPFL, determining extinction of the claim, understanding that Interunion failed to appropriately show the calculation performed, which is not dispensable to file a collection claim. Against the ZSTJ decision, Interunion filed a series of appeals (motion for stay, motion of difference, interlocutory appeal and new motion for stay), which were all rejected successively. Interunion, then, filed an extraordinary appeal (addressed to the STF). Upon analysis of admissibility, the STJ understood that the appeal was not applicable, rejecting it, that is, its remittance to the STF to have analysis of the merit, under the terms in the decision published on March 10, 2014. Against this inadmissibility decision, Interunion filed an appeal (interlocutory appeal) waiting to be judged by the Vice-presidency of the STJ, and eventual remittance to the STF.
Chances of loss	Probable (15.8%) and Remote (84.22%)
Analysis of impact in the case of losing the suit/ Reasons why it is relevant to the	Eventual unfavorable decision in the process would cause financial losses to the Company.

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Company

Amount provisioned (if any) R\$ 145,335,483.98.

**(IV) Environmental**

The tables below present a description of individual environmental nature processes considered relevant to the business of the company and/or its subsidiaries.

1) Claim no. 0317.02.002974-8

Jurisdiction	2nd Civil Court of Itabira - Minas Gerais
Instance	1st Instance
Date of filing	09/26/1996
Parties in the suit	City of Itabira (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	R\$ 3,706,892,276.82

Main facts The municipality of Itabira seeks compensation for expenses that it alleges to have incurred with public services rendered as a consequence of Vale's mining activities. The case was suspended, pending judgment of a writ filed by Vale to be used in this lawsuit, so that favorable evidence produced in another lawsuit could be used (item 2 below). On January 2012, the writ was judged against Vale.

However, this case remains suspended because the court in the first degree has not yet received from the Court of Justice of Minas Gerais information on the writ. After this communication, the lawsuit may resume its normal course. However, the parties filed a joint petition on March 12, 2013 requesting suspension of the suit to attempt a settlement.

Chances of loss Total amount divided into possible loss (15%) and remote loss (85%).

Analysis of impact in the case of losing the suit/ Reasons for importance for the Company Any unfavorable decision in the lawsuit would generate great financial losses for the Company, although there is no risk of stoppage of activities.

Amount provisioned (if any) None.

2) Claim no. 0317.02.007032-0

Jurisdiction	1st Civil Court of Itabira - Minas Gerais
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Instance	1st Instance
Date of filing	08/22/1996
Parties in the suit	City of Itabira (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	R\$ 3.201,227,083.78
Main facts	Suit filed in the municipality of Itabira, in the State of Minas Gerais, in which the plaintiff claims that the operations of the iron mines in Itabira caused environmental and social damage and requires the restoration of the site and the implementation of environmental programs in the region. Expert witnesses were used in this case, and the report issued jointly by IBAMA and FEAM was favorable to Vale. Nevertheless, the Municipality requested the production of new expert evidence, which was accepted by the judge. For this purpose, a multidisciplinary team from the Federal University of Lavras as appointed. On November 6, 2012, there was a settlement hearing in which the petition to stay the lawsuit was granted until May 6, 2013 in order to form the parties. The parties filed a joint petition on March 12, 2013 requesting suspension of the suit to attempt a settlement.
Chances of loss	Total amount divided into possible loss (7%) and remote loss (93%).
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	Any unfavorable decision in the lawsuit would generate great financial losses for the Company, although there is no risk of stoppage of activities.
Amount provisioned (if any)	None.
3) Process no. 26.295.47.2012.4.3700	
Jurisdiction	8th Federal Court of São Luís Maranhão
Instance	1st instance
Date of filing	07/22/2012
Parties in the suit	Sociedade Maranhense de Direitos Humanos, Conselho Indigenista Missionário (CIMI), Centro de Cultura Negra do Maranhão CNN (plaintiffs) and IBAMA and VALE (defendants).
Amounts, goods or rights involved	R\$ 720,000,000.00 or higher
Main facts	The public civil action aims the suspension of the licensing process for the Expansion of Carajás Railroad. For that, plaintiffs claim that the environmental licenses granted by IBAMA are based

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on an environmental study which is insufficient to characterize globally impacts caused by the work, as well as fragmenting environmental licenses in order to uncharacterized the company's obligation for environmental compensation due in view of the enterprise. In the end, after criticisms to the required licensing model, plaintiffs claim the nullity of the process and licensing.

In July 2012, the court granted a preliminary order, determining suspension of all Works and activities related to the expansion of the Carajás Railroad. Vale and IBAMA filed appeals (interlocutory appeals), aiming to reverse the decision, and filed before the Presidency of the TRF of 1st Region (DF) a claim to suspend the preliminary order, claiming that (i) the risk of serious irreversible economic losses arising out of any eventual maintenance of such preliminary decision, as well (ii) as the fact that the environmental study prepared by Vale fully complied with the terms in CONAMA RES 237, while there are no grounds for the claim regarding the serious risk of social-environmental unbalance. The suspension request was accepted by the Presidency of the TRF of the 1st Region, and the plaintiffs appealed against this decision (interlocutory), but were not successful and the decision favorable to Vale was maintained.

At the first instance, Vale and IBAMA filed their defenses claiming (a) the regular nature of the licensing process, (b) the clear definition, in the study, of all diagnosis regarding the impacts on areas and communities under direct and indirect influence of the work (including traditional communities), and (c) the need to respect the competence and technical skills held by IBAMA to carry out and conclude the environmental study. In recent decision, the federal judge accepted the claim by the Federal Public Defense Office to appear as plaintiff. Vale filed an appeal (interlocutory) against this decision, aligned with the opinion by the Federal Prosecution Office (MPF), in the sense of lack of legitimacy of the Public Defense to be party in the claim.

Chances of loss

Remote.

Analysis of impact in the case of losing the suit/ Reasons for importance for the Company

Eventual decision unfavorable to Vale, may compromise the licensing process for the expansion of EFC, with impacts on logistic operations of VALE to deploy the production transportation plan for Project S11D.

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Amount provisioned (if any)	None.
4) Process no. 0021337-5220114.01.3700	
Jurisdiction	8th Federal Court of São Luís Maranhão
Instance	1st instance
Date of filing	11/04/2011
Parties in the suit	Federal Prosecution Office (plaintiff) and IBAMA and VALE (defendants)
Amounts, goods or rights involved	R\$ 700,000.00 or more
Main facts	<p>Public Civil Action that aims to impose onto the company and to IBAMA the duty of redoing part of the environmental study that was used as basis to the licensing process for the expansion of Carajás Railroad, due to alleged failure of indication of impacts caused by the expansion of EFC onto <i>quilombolas</i> communities located close to segment 20 of the EFC, in Maranhão (communities of Monge Belo and Santa Rosa dos Pretos).</p> <p>On March 8, 2012, the Court approved the agreement entered by and between the parties, under which, Vale agreed upon: (i) transfer the amount of R\$700,000.00, to be managed by the Cultural Foundation Palmares and applied in the structural and cultural development of communities which protection is the object of this claim; (ii) carry out environmental studies of environmental recovery actions with hydric bodies located in the inside of quilombolas lands of Monge Belo and Santa Rosa dos Pretos; (iii) build, subsequently, four bridges in the inside of segment 20 of EFC, each one within a maximum period of 18 months, starting on the date of licensing by IBAMA; (iv) alter all the level passages related to each bridge to be built, signaling and lighting the passages to be used by the communities; (v) place fences on both sides of the EFC at the segment 20, protecting the areas used as crossing by people and animals.</p>
Chances of loss	Probable.
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	Despite of an agreement signed in this claim, under which the company agrees upon several obligations related to the social-economic aspects of the area, eventual non-compliance of such agreement may, in the worst scenario, motivate judicial decisions that suspend expansion and operation of EFC in the area,

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compromising logistic operations of the railroad for indefinite period.

Amount provisioned (if any) R\$700,000.00

**4.4 In-court, administrative or arbitration proceedings that are not confidential involving managers, former managers, controllers, former controllers or investors**

1) Claim no. 005530-40.2007.8.19.0001

Jurisdiction	Prosecution in progress before 48th Civil Court of the Justice Court of Rio de Janeiro. Interlocutory Appeal before the 2nd Section of the Special Court of the STJ and Extraordinary Appeal still not delivered to the STF.
Instance	3rd Instance
Date of filing	05/09/2007
Parties in the suit	Petros (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	Vale was requested to make an escrow deposit as payment on March 8, 2010 in the amount of R\$ 346,773,910.20, due to the temporary collection claim filed by Petros. Although no final decision has been rendered yet, on August 23, 2011, Petros, to increase the amount deposited in escrow, presented a surety bond issued by Banco Bradesco in the amount of R\$ 497.0 million.
Main facts	Petros filed an action claiming the receipt of purges made because of inflation arising from the economic plans called Plano Verão and Plano Collor on amounts paid under forward contracts for buying and selling gold concluded with Vale from 1988.

These contracts were paid up and settled by Petros at that time. However, Petros started legal proceedings aimed at applying the decision on a matter taken in the STJ for savings accounts books, to contracts concluded with Vale. Vale maintains that the inflationary adjustments are not due; however, all decisions have been unfavorable to the company. Currently the original process is in the provisional implementation stage, as there are appeals waiting to be judged. The special appeal filed by Vale was rejected by the STJ. Currently, there is an appeal (interlocutory appeal) filed by the Company waiting to be judged by the STJ. The preliminary decision, - as there are appeals waiting to be judged - Vale was determined to pay R\$ 346,773,910.20 claimed by PETROS in the lawsuit.



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Chances of loss	<p>To increase the amount deposited in escrow, Petros presented a bank surety bond in the amount of R\$ 497 million. Should the appeal is successful and there are changes in the merit of the case, Vale may be entitled to recover the amount provided to Petros. There also is an extraordinary appeal filed by Vale to be processed and judged by the STF.</p> <p>Probable</p>
Analysis of impact in the case of losing the suit	<p>If a decision unfavorable to Vale becomes final (res judicata), the Company shall not have to pay anything else taking into account the escrow deposit of R\$ 346,773,910.20 mentioned above.</p> <p>Additionally, such a decision can open a precedent for similar judgments in other cases where future contracts for sale of gold are in dispute (total of 12 cases, including this one. For more details see item 4.6 of this Reference Form).</p>
Amount provisioned (if any)	<p>No amount has been allocated given the escrow deposit made by Vale, which was withdrawn by Petros, upon the presentation of bank guarantee.</p>
2) Claim no. 0079940-46.2010.4.01.3800	
Jurisdiction	18th Federal Court of Belo Horizonte Minas Gerais
Instance	1st Instance
Date of filing	02/18/2004
Parties in the suit	<p>Transger S/A (plaintiff) and Ferrovia Centro Atlântica S/A, Mineração Tacumã Ltda, KRJ Participações S/A, CPP Participações S/A, Carmo Administração e Participações Ltda, Fundação Vale do Rio Doce de Seguridade Social - Valia and Companhia Siderúrgica Nacional - CSN (defendants)</p>
Amounts, goods or rights involved	<p>Incalculable Request for annulment of the General Meeting.</p>
Main facts	<p>The plaintiff brought a lawsuit requesting additionally to compensation, annulment of the General Meeting authorizing the capital increase of Ferrovia Centro-Atlântica S.A. ( FCA ) in 2003 on the grounds of alleged practice of abusive acts by FCA s controlling group. The decision that judged the action to be well founded, was annulled by the Court of Justice of Minas Gerais, and determined the production of new expert evidence. During the preparation of the new expert evidence, the National Agency of Land Carriage (ANTT, according to the initials in Portuguese) stated its interest in participating in the case and, for this reason, the</p>

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jurisdiction in this procedure was transferred to the Federal Justice of Minas Gerais.

The judge of the 18th Federal Court of Belo Horizonte issued a decision recognizing the jurisdiction of the Federal Courts to judge the case because of ANTT's interest in the maintenance of the concession and accurateness of the administrative act. ANTT appeared in the files, ratifying its understanding regarding the validity of the act authorizing increase of FCA's capital stock.

All parties were summoned to present final arguments, including ANTT, and the files were forwarded to the judge on October 30, 2013 to prepare the decision.

Chances of loss	Possible
Analysis of impact in the case of losing the suit / Relevance to the Company	Incalculable amount
Amount provisioned (if any)	None

3. Procedure No. 0529364272010.8.13.0145

Jurisdiction	7th Civil Court of Juiz de Fora/Minas Gerais
Instance	1st Instance
Date of filing	August 20, 2010
Parties in the suit	SUDFER (plaintiff), and MRS Logística S.A., Companhia Siderúrgica Nacional S.A., Minerações Brasileiras Reunidas S.A. (MBR), Usiminas Usinas Siderúrgicas de Minas Gerais, Gerdau S.A. and Vale S.A. (defendants)
Amounts, goods or rights involved	Incalculable
Main facts	Plaintiff filed a claim alleging that MRS Logística adopted a tariff policy aiming to favor its controlling group, specifically the defendants; a complaint was even filed before CVM, which through the appointed Committee of Inquiry- acknowledged that the complaint filed by Clube SUDFER on the irregularities of the group was true. Based on this claim, plaintiff requested: 1) to order the defendants to hire with a subsidiary on equal terms, taking into consideration the maximum allowable tariff; 2) to order the Defendants to pay any and all direct material damages imposed on MRS Logística until the improper practice has been stopped, due to the

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unfair reduction of the profits of the company, due to the non-payment of dividends, and due to the payment of less dividends in view of the reduced tariffs charged to the controlling group.

In January 2011, Vale and MBR filed their pleas.

Main proceedings will be suspended until final decision on procedural issues (incompetence exception) claimed by the defendants, thus aiming that the justice if the court is competent to hear the case or whether in fact the competent forum is Rio de Janeiro. The motions were received by the Court of Justice of the State of Minas Gerais. We are waiting for the decision to be final (res judicata) and for the files to be sent to the Court of Justice of the State of Rio de Janeiro.

Chances of loss	Possible
Analysis of impact in the case of losing the suit / Relevance to the Company	Any unfavorable decision in the lawsuit would generate financial losses for the Company and would damage its image.
Amount provisioned (if any)	None

4) Procedure No. 0497166342010.8.13.0145

Jurisdiction	8th Civil Court of Juiz de Fora Minas Gerais
Instance	1st Instance
Date of filing	August 23, 2010.
Parties in the suit	SUDFER (plaintiff) and Júlio Fontana Neto, Henrique Aché Pillar, José Paulo de Oliveira Alves, Pablo Javier de La Quintana Bruggemann, Lauro Henrique Campos Rezende, Wanderlei Viçoso Fagundes, Hugo Serrado Stoffel, Guilherme Frederico Escalhão, Delson de Miranda Tolentino, Marcus Jurandir de Araújo Tambasco, Chequer Hanna Bou-Habib, Roberto Gottschalk, Joaquim de Souza Gomes, Luiz Antônio Bonaguara, Companhia Siderúrgica Nacional S.A., Minerações Brasileiras Reunidas S.A., Usiminas Usinas Siderúrgicas de Minas Gerais, Gerdau S.A., and Vale S.A. (defendant)
Amounts, goods or rights involved	Incalculable

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Main facts	The Plaintiff requires compensation for moral damages based on the claim that the image of Clube SUDFER was enormously damaged for 9 years, and that said company did not receive dividends, and thus, was in pre-insolvency status. Plaintiff also requires shares to be sold under same conditions as it had the right to purchase at the time of the 2nd offer of shares made by MRS Logística, besides the loss of earnings by the dividends not received. MBR, like Vale, is one of the defendants because it is the controlling shareholder of MRS. On March 15, 2012, Vale, MBR and the managers Chequer Hanna Bou-Habib, Guilherme Frederico Escalhão, Hugo Serrado Stoffel and Roberto Gottschalk submitted their arguments. Vale also raised procedural issues (lack of competence exception), aiming to have the claim remitted to Rio de Janeiro. There was a decision accepting this claim and determining remittance of the files to the court in Rio de Janeiro. As appeals are applicable, this decision is not final yet. While the decision is not final, the discussions on merits are suspended.
Chances of loss	Possible
Analysis of impact in the case of losing the suit / Relevance to the Company	Any unfavorable decision in the lawsuit would generate financial losses for the Company and would damage its image.
Amount provisioned (if any)	None
5) Procedure No. 2010.51.01.002548-3	Writ of Mandamus
Jurisdiction	32nd Federal Court of Rio de Janeiro
Instance	1st Instance
Date of filing	10/25/2012
Parties in the suit	Clube SUDFER (Plaintiff) and the President of the Tangible Values Commission - CVM, Alberto Regis Távora, Chequer Hanna Bou-Habib, Vale S.A., Companhia Siderúrgica Nacional S.A., Delson de Miranda Tolentino, George Josef Schmidt, Godofredo Mendes Vianna, Henriq Ache Pillar, Inacio Clemente da Silva, Joao Paulo do Amaral Braga, Joaquim de Souza

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Gomes, Jose Paulo de Oliveira Alves, Julio Cesar Pinto, Julio Fontana Neto, Klaus Helmut Schweizer, Lauro Henrique Campos Rezende, Luiz Antonio Bonaguara, Marcus Jurandir de Araujo Tambasco, Marianne von Lachmann, Minerações Brasileiras Reunidas S.A. (MBR), Pablo Javier de la Quintanna Bruggemann, Rinaldo Campos Soares, Valter Luis de Sousa, Wanderlei Vicoso Fagundes, Otavio de Garcia Lazcano, Andreas Walter Brehm, Guilherme Frederico Escalhão, Hugo Serrado Stoffel, Oscar Augusto de Camargo Filho, Roberto Gottschalk, Estela Maria de Almeida Palombo, Mauro Rolf Fernandes Knudsen (defendants).

Amounts, goods or rights involved

Incalculable

Main facts

Plaintiff requested a preliminary order to determine, until decision on the merits of this writ of mandamus, to immediately suspend sanctioning administrative case no. 14/05 to avoid the National Finance System's Appeals Council from examining the mandatory review filed by the CVM, in that administrative procedure. Additionally to the suspension preliminary order on merits, the plaintiff requested recognition of irregularities in the sanctioning administrative case no. 14/05, and consequent annulment of the judgment pronounced by that sanctioning administrative case, thus determining that the records are sent back to the CVM for a new trial, which shall be presided by a new panel, and recognizing all of the barred and /or suspicious directors who participated in the 1st trial, for they rendered their vote in a lawsuit that, according to the plaintiff, is clearly fraudulent, and violated the principles of impartiality, morality, legitimacy, impersonality, adversarial proceedings and full defense, in addition to the disposition of the Federal Constitution from 1988 and of law no. 6.404/76. The injunction was granted determining the sanctioning administrative proceeding no. 14/2005 was suspended under referred terms. The CVM president filed an appeal (interlocutory appeal) against this decision. The appeal was granted, and the decision determining suspension was annulled.

Appearing in this lawsuit, the Federal Prosecution Office (MPF) expressed an opinion that all defendants should be cited in the administrative proceedings in question, since the outcome of this

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writ of mandamus will directly affect all the parties, and the right to a full defense and of adversarial proceedings, must be ensured, given their interest in the case. The judge ordered the inclusion of all parties as defendants and citation of the companies' shareholders and managers.

On June 8, 2011 Vale, MBR and the following managers - Andreas Walter Brehm, Guilherme Frederico Escalhão, Hugo Serrado Stoffel, Roberto Gottschalk, Oscar Augusto de Camargo Filho, Inácio Clemente da Silva and Chequer Hanna Bou-Habib - presented their defenses. The plaintiff must provide for the citation of other defendants to move the procedure along.

Without a judicial decision determining suspension of the process, the CRSFN, in September 2013, judged CVM's mandatory appeal ( *de oficio* ), confirming the decision issued by CVM Panel, absolving all the defendants.

Chances of loss	Remote
Analysis of impact in the case of losing the suit / Relevance to the Company	Any unfavorable decision in the lawsuit would generate financial losses for the Company and would damage its image.
Amount provisioned (if any)	None

6) Procedure no. 0393909-98.2012.8.19.0001

Jurisdiction	3rd Corporate Court of Rio de Janeiro
Instance	1st instance
Date of filing	10/05/2012
Parties in the suit	Carteira Administradora Coletiva Dynamo, Ruth Cazal, Fernanda Cazal, Roberto Amaral de Almeida Rocha, Alexandra Lima Alves Derenzi, Breno Wajchenberg, Roka Fundo de Investimento Multimercado, and Investier Clube de Investimentos (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	Around R\$ 50 million.
Main facts	Plaintiff's claim that Vale had issued debentures based on deeds that provided for security deadline conditions other than those agreed upon at general meeting, reason why they claim Vale is condemned to pay the debentures according to the estimated

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compensation at the general meeting minutes. Vale was cited on May 27, 2013 and filed its defense on June 17, 2013. The court of the 13th Civil Court understood that, due to the issue within, the procedure should proceed at one of the corporate courts. The process was forwarded to the 3rd Corporate Court.

Chances of loss	Possible
Analysis of impact in the case of losing the suit / Relevance to the Company	Eventual unfavorable decision in the procedure would cause financial losses to the Company.
Amount provisioned (if any)	None.

**4.5 Relevant confidential claims**

On December 31, 2013, the Company was not a party in any relevant and sensitive cases.

**4.6 Publicly known and relevant repeated or related in-court, administrative or arbitration proceedings**

**(i) Labor**

This item 4.6 of the Reference Form highlights the amount allocated in relation to repeated or related claims. Given the size of the company, the number of employees and service providers and the number of labor claims, only those repetitive processes that represent more than 5% (five percent) of all claims filed against the Company on December 31, 2013, described in the table below, namely: joint/subsidiary liability (13%), overtime (10%), additional payment due to unhealthy or risky work environments (7%), fines (7%) and commuting hours (6%).

<b>Fact and/or legal cause</b>	The more recurring objects are subsidiary/joint liability, overtime, additional payment for hazardous/unhealthy conditions, hours <i>in itinere</i> and fines.
<b>Amounts involved</b>	R\$ 3.4 billion
<b>Amount provisioned</b>	R\$ 852.4 million
<b>Company practice or that of subsidiary which caused the contingency</b>	Difference of interpretation between the Company, employees and unions to various facts, legal and regulatory instruments concerning the issues above.

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(ii) Tax

<b>Fact and/or legal cause</b>	Discussion about the taxable base for the calculation of the Financial Compensation for Exploring Mineral Resources – CFEM (for its acronym in Portuguese)
<b>Amounts involved</b>	R\$ 4,568 billion (including interest and fines by December 31, 2013).
<b>Amount provisioned (if any)</b>	R\$ 141.4 million.
<b>Company practice or that of subsidiary which caused the contingency</b>	Vale is involved in many administrative and legal proceedings concerning the collection of CFEM credits. Such claims result from tax assessments by the National Department of Mineral Production DNPM, an independent government agency under the control of the Ministry of Mines and Energy and involve discussions on the alleged difference in values resulting from tax deductions and travel expenses, arbitration and prescription term for collection, incidence of CFEM on pellets and on final clients sales invoicing abroad and irretroactivity of IN 6/00.. In 2013, the Company paid values related to external transportation and, additionally, values analyzed by the Workgroup (comprised by Vale and DNPM members) went down.
<b>Fact and/or legal cause</b>	Collection of State VAT (ICMS) on interstate transfer of ore.
<b>Amounts involved</b>	<u>Pará:</u>  Original total amount: R\$ 1.2 billion (12/31/2013)
<b>Amount provisioned (if any)</b>	None.
<b>Company practice or that of subsidiary which caused the contingency</b>	Vale contests the ICMS (value-added tax) allegedly due to the State of Pará because there were disagreements in the calculation basis of the taxes due in the interstate transfer of iron between Pará and Maranhão, resulting in six (6) acts of infringement filed in 2010 and 2013. The first three (3) acts of infringement, which total updated value sums R\$ 610 million, related to generating facts occurring in 2007 to 2009, are judicially claimed.
	Vale has presented a surety bond as well as its



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defense, which is waiting to be appreciated by the judge. Regarding the other three (3) acts of infringement, related to generating facts occurring in 2010 to 2011, summing R\$ 583 million, Vale presented administrative defense and waits for judgment. In any case, Vale claims that the ICMS, in interstate transfer, should incur on the cost price under the terms of the Complementary Law (LC) no. 87/96, as the goods are produced and are not non-industrialized product.

**(iii) Civil**

<b>Fact and/or legal cause</b>	Twelve pension funds claim receipt of purges made because of inflation arising from economic plans called Plano Verão and Plano Collor on amounts paid under contracts for buying and selling gold concluded with Vale from 1988. More specifically, in the Petros case, which is the most significant one in amount terms, Vale was condemned to pay the R\$ 346,773,910.20 (item 4.4, table 1, above).
<b>Amounts involved</b>	R\$ 186,872,375.96, corresponding to the total amount from the other 11 cases, that is, excluding the Petros case, which is dealt with separately.
<b>Amount provisioned (if any)</b>	R\$ 5,336,727.00 related to the ELETROS case.
<b>Company practice or that of subsidiary which caused the contingency</b>	The contingency has been generated according to the edition of economic plans called Plano Verão and Plano Collor, both created by the Federal Government between 1989 and 1991. The contracts in discussion around these were all paid by Vale and considered to be settled by the plaintiffs at the time. However, the plaintiffs started legal proceedings aimed at extending application of the decision on a matter judged in the STJ for savings accounts books, to contracts concluded with Vale. The Company maintains that repayment of inflationary purges is not due.

**4.7 Other significant contingencies**

Vale was involved in discussion with Swiss authorities regarding the granting of tax benefits to its Swiss subsidiary, Vale International. The dispute was resolved in December 2012 when Vale International paid the additional federal taxes

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claimed by the Swiss federal authorities, in four payments in the total amount of CHF 212 million Swiss francs. The first payment of CHF 53.2 million was made in January 2013 and payment of the last installment is expected in 2015.

Vale International's federal and regional tax exemptions were renewed at a rate of 80% through 2015, and are subject to certain conditions related to employment, real estate investment, and collaboration with Swiss universities.

**Relevant Conduct Modification Agreements and Terms of Commitment**

The Company is a party in the following relevant terms of commitment and conduct modification agreements:

**Cooperation Agreement not resulting from Administrative / Legal Proceeding**

**Origin: Terms of Engagement signed with the Indigenous Community (TI) Mãe Maria**

- |    |  |   |
|----|--|---|
| a) | <b>Parties</b>   | Vale, Indigenous Association Te Mêmppapytarkate Akrätikatêjê da Montanha, Jê Jôkrityiti (Akrâkaprekti) Association, Indigenous Association Parkatêjê Amjip Tar Kaxuwa and Indigenous Association Kyikatêjê and Fundação Nacional do Índio FUNAI, with the Federal Prosecution Office at Marabá, acting as intervening party.  |
| b) | <b>Agreement Date</b>  | 03/01/2012, 07/27/2012, 07/24/2012, and 08/02/2012  |
| c) | <b>Description of the facts that have led to entering this agreement</b> | Based on its social accountability policy, Vale already had entered into Engagement Agreements with the indigenous individuals from the Mãe Maria TI, which expired in 2012.<br><br>Therefore, due to the influence of the Carajás Railroad (EFC) on this community, Vale decided to continue to send funds to meet the urgent needs of the individuals from this community, making sure that the Indigenous Component study and Basic Environmental Plan (PBA) were conducted, documents that are required for the licensing process to expand the Carajás Railroad, now, with FUNAI, helping communities to manage funds. |
| d) | <b>Commitments made</b>  | To continue to invest in the implementation of projects in productive activities. On the other hand, indigenous communities commit not to stop any productive activity or invade Vale facilities, in particular the Carajás Railroad, and they also authorize the Indigenous Component  |

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		study and the Basic Environmental Plan (PBA), documents required for the licensing process to the project to expand the Carajás Railroad.
e)	<b>Deadline, if any</b>	Many different deadlines, with commitment to be met up to the end of the study of Indigenous Component and Basin Environmental Plan (PBA).
f)	<b>Information about the conduct adopted to comply with the commitments made in the agreement</b>	The Community Relations Director had two focal points monitoring compliance with the commitment made in the Engagement Agreement, in particular the transfer of financial resources.
g)	<b>Consequences in the event of noncompliance</b>	Failure to comply with the commitments made would immediately lead to social/indigenous movement that may have implications on the company's railroad operations (interference in the railroad line). Said manifestations by the indigenous people also tend to restrict freedom of access of Vale's teams and hired third parties who run diagnostics or conduct studies on the environment and communities under the direct and indirect influence of the activities developed by the Company in the regions covered by the agreement, threatening the environmental licenses granted by the environmental entity, weakening Vale's position at the institutional level, with not prejudice to the executive measures to be taken by the Federal Prosecution Office, IBAMA, FUNAO, and the other autarchies involved with the protection of indigenous rights.
h)	<b>Other notes</b>	-

**Legal Agreement**

**Origin: Proceeding no. 21337.52.2011**

a)	<b>Parties</b>	Vale, Federal Prosecution Office, Palmares Cultural Foundation, National Institute for Colonization and Land Reform, and the Brazilian Institute for the Environment and Renewable Natural Resources.
b)	<b>Agreement Date</b>	03/08/2012
c)	<b>Description of the facts that have led to entering this</b>	The Federal Prosecution Office has accused Vale, who subsidized the licensing process for the Carajás Railroad expansion project, of

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<b>agreement</b>	lacking the environmental study investigating the diagnostic impact of the expansion on the two <i>quilombo</i> communities located in the State of Maranhão.
<b>d) Commitments made</b>	(i) Transfer the amount of R\$ 700,000.00 to the Palmares Foundation to help with the construction of clinics and of an educational center; and  (ii) Development of a study of the local environmental impact, recovery of waterways, and the building of overpasses in the next four years, as specified in the legal agreement schedule.
<b>e) Deadline, if any</b>	Sparse deadlines, with commitment to be met through the end of the Carajás Railroad expansion project. Among them are: (i) the already made payment of R\$ 700,000.00 to the communities to finance the building of social devices in the community and Palmares Foundation; (ii) development of an environmental study already done and the adoption of measures to mitigate the impact of the Company's operations and activities in the region; (iii) building of four overpasses for the communities that are parties in the agreement and with a deadline of construction extending over four years; and (iv) improvement of the current passageways until the overpasses are built in the region. These commitments are underway.
<b>f) Information about the conduct adopted to comply with the commitments made in the agreement</b>	The General Manager of Project Relations, who works under the Director of Northern Logistic Projects (DIPL), focuses on engineering and public relations, monitoring compliance with the activities developed by Vale. The commitments and deadlines reflect the item above.
<b>g) Consequences in the event of noncompliance</b>	The Federal Prosecution Office may request that the Company comply with the commitments made, under penalty of a fine determined by a competent federal judge.
<b>h) Other notes</b>	-

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**Conduct Modification Agreement (TAC) no. 283/2004**

**Origin: Preparation Proceeding no. 0203/01 - Regional Labor Public Prosecution Office of the 1st region Rio de Janeiro**

- |    |   |   |
|----|---|---|
| a) | <b>Parties</b>  | Labor Prosecution Office and Vale S.A.  |
| b) | <b>Agreement Date</b>   | 12/15/20014   |
| c) | <b>Description of the facts that have led to entering this agreement</b>                          | Legal obligation to train and hire people with disabilities to meet legal requirements, including regarding the quota set forth in article no. 93 of Law no. 8.212/91   |
| d) | <b>Commitments made</b>   | Initially, professionally train about 34 to 40 disabled people to start. To develop a national program. To enter into partnerships with Organization like SENAI for training. During training, to provide transportation, food, and medical care. After training, to hire people with disabilities. |
| e) | <b>Deadline, if any</b>   | The TAC is renewed yearly and it indicates the year's quota for training and hiring.  |
| f) | <b>Information about the conduct adopted to comply with the commitments made in the agreement</b> | Development of an inclusion program for people with disabilities.   |
| g) | <b>Consequences in the event of noncompliance</b>   | R\$ 1,000.00 per worker that is not trained and hired, within the quota for that particular year  |
| h) | <b>Other notes</b>  | The TAC allows Vale to fail to fully comply with the quote set forth by Law no. 8.212/91, while complying with obligations set forth therein. If there is noncompliance with the TAC, Vale must immediately meet the quote specified by the Law, losing this requirement provided by the Agreement. |

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**Environmental Obligation Agreement: TCA at do Pico do Itabirito**

**Origin: Public Civil Investigation no. 319.02.0001-8 MPMG**

- |    |   |   |
|----|---|---|
| a) | <b>Parties</b>  | Minerações Brasileiras Reunidas S.A., Vale S.A., Ministério Público Estadual-MG, Instituto Estadual de Florestas, Secretaria de Estado do Meio Ambiente e Desenvolvimento Sustentável de Minas Gerais, and AngloGold Ashanti Brasil Mineração Ltda. |
| b) | <b>Agreement Date</b>   | 7/9/2010  |
| c) | <b>Description of the facts that have led to entering this agreement</b>                          | Agreement signed for the enforcement of protection measures to the area known as Pico do Itabirito and archeological site of Cata Branca.   |
| d) | <b>Commitments made</b>   | Environmental and landscape remediation in protected areas.   |
| e) | <b>Deadline, if any</b>   | Schedule presented to the State Prosecution Office expected conclusion: July 2015.  |
| f) | <b>Information about the conduct adopted to comply with the commitments made in the agreement</b> | Procedures to recover areas in progress, with fencing and signage as archeological site, environmental education programs and environmental remediation project at the area known as Pico do Itabirito.   |
| g) | <b>Consequences in the event of noncompliance</b>   | Fine R\$2,500.00/day delaying enforcement of the agreed and non-complied with portion.  |
| h) | <b>Other notes</b>  | -   |

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**4.8 Rules of the country of origin and of the country in which the securities are held in custody**

Not applicable to the Company, as it is not a foreign issuer.

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**5.1 Description of the main market risks**

Considering the nature of the business and operations of the Company, the main factors of market risk to which the company is exposed are:

- exchange rates and interest rates;
- product and inputs prices;

**Exchange risk and interest rate**

The Company's cash flow is subject to the volatility of several currencies, since its products prices are indexed predominantly on the US dollar while a significant portion of its costs, expenses and investments are indexed in other currencies, in particular in Brazilian real and Canadian dollars.

The company is also exposed to interest rates on loans and financing. Debts with floating interest rate in US dollars consist mainly of loans that include exportation pre-payment operations and loan from commercial banks and multilateral organizations. Overall, these debts are indexed with rates that are subject to Libor (London Interbank offered Rate) variations. While considering the effect of interest rate volatility onto cash flow, the Company considers possible effect of natural hedge between fluctuations in US interest rates and prices of commodities in the decision making process for financial investments.

On December 31, 2013, 71% of our debt was in American dollars (US\$), corresponding to R\$ 47,887.4 million, of which R\$ 32,575.0 million were tied to fixed interest rates and R\$ 15,312.4 million were tied to Libor. Another 22% of the debt is in Brazilian Real (R\$), corresponding to R\$ 15,188.3 million, of which R\$ 6,250.0 million were tied to the IBR Rate, R\$ 8,201.7 million were tied to the TJLP (long term interest rates) and R\$ 736.6 million to fixed interest rates.

For more information about risks on exchange and interest rates, see item 4.1 in this Reference Form.

**Risk of product and inputs prices**

The company is exposed to market risks related to price volatility for commodities and inputs. The Company's main products are: iron ore and pellets, nickel, copper products, fertilizers and coal. The Company's main input are different material and equipment, including tires, transporting belts, parts and components of mining equipment, rail equipment, industrial facilities and workshop maintenance, fuels and gases, and electric power.



For more information on the risk of product prices, see item 4.1 in this Reference Form.

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**5.2 Description of the policy for management of market risks**

The Company understands that risk management is essential to support its growth plan, strategic planning and financial flexibility. Therefore, Vale has developed its risk management strategy with the objective of providing an integrated view of risks to which it is exposed. To do this, it not only assesses the impact of variables negotiated in the financial market on business results (market risk), but also those arising from a liquidity risks, risks from the obligations assumed by third parties to the Company (credit risk), those inherent to inappropriate and deficient internal processes, personnel, systems or external events (operational risk), and others.

Vale's Board of Directors established a policy of corporate risk management for purposes of supporting the growth plan, the strategic planning, and continuity of Company businesses, in addition to strengthening the Vale Group's capital structure and asset management, ensuring an appropriate flexibility in financial management, maintaining the necessary level of solidity for the level of investment, as well as strengthening corporate governance practices.

The policies of corporate risk management determine that Vale should measure and monitor its corporate risk in a consolidated manner, for purposes of ensuring that the total level of corporate risk is aligned with guidelines set by the Board of Directors and the Executive Directors.

The Risk Management Executive Committee, created by the Board of Directors, is responsible for supporting the Executive Directors in risk assessment and for issuing opinions related to Company risk management. It is also responsible for supervising and reviewing the principles and instruments used in corporate risk management.

The Executive Directors are responsible for approving the developments of policies in rules, regulations and responsibilities and informing the Board of Directors on such procedures.

Rules and guidelines used in risk management complement the corporate risk management policy and define Company practices, procedures, controls, roles and responsibilities related to risk management.

When needed, the company may allocate specific risk limits to management activities requiring those, including, without limitation, limits on market risk, corporate and sovereign risks, according to acceptable limits to corporate risk.

**a. Risks for which protection is sought**

Vale is exposed to the behavior of several market risk factors (especially the price of products and input, exchange rates and interest rates) that could impact its cash flow. Assessment of this potential impact, arising out of the volatility of risk factors and its correlations, is performed periodically to support



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the decision making process, the Company growth strategy, ensuring financial flexibility and monitoring volatility of future cash flows.

Thus, when needed, market risk mitigation strategies are assessed and deployed in line with such goals. Some of these strategies use financial instruments, including derivatives. Portfolios comprised of financial instruments are monthly monitored in a consolidated manner, allowing the follow-up of financial results and their impact on cash flow.

**b. Asset protection strategy (hedge)**

In line with Vale risk management policy, commodities-related risk mitigation strategies may also be used to adequate the risk profile and reduce the cash flow volatility. For these mitigation strategies, the company mainly uses forwards, future, or zero-cost collars operations.

In the case of cash flow exchange hedge involving income, costs, expenses and investments, the main risk mitigation strategies are currency and swap operations.

Vale deployed hedge operations to protect its cash flow against market risk from its debts especially exchange risk. Swap operations are used to convert debts in reais and euros into US dollars that mature on similar dates or, in some cases, earlier - than debt final maturity date. Their amounts are similar to the payment of interest and principal, according to market liquidity risks.

Swap operations that mature earlier than debts final maturity are renegotiated through time in order to have matching or close - maturity dates. Therefore, on the settlement date, the swap results will compensate part of the Exchange rate variation on Vale obligations, helping to stabilize the cash flow.

In the case of debt instruments denominated in reais, if there is real (R\$) increase (decrease) before the North-American dollar (US\$), the negative (positive) impact in Vale's debt service (interest and/or principal payment), in North-American dollars, will be partially offset by the positive (negative) effect from the swap operation, regardless of the US\$/R\$ Exchange rate on the date of payment. The same reasoning is applicable to debts denominated in other currencies and their respective swap operations.

**c. Instruments used for asset protection (hedge)**

Protection programs and hedge programs employed by Vale, and their objectives include:

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- Protection program of loans and financing in reais, indexed to CDI: In order to reduce the volatility of the cash flow, swap transactions have been made in order to convert the cash flow of debt, indexed to the CDI to U.S. dollars, in loans and financing contracts. In these operations, Vale pays fixed

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and / or floating rates (Libor) in U.S. dollars and receives remuneration linked to the CDI.

- Protection program of loans and financing in reais, indexed to TJLP: In order to reduce the volatility of the cash flow, swap transactions have been made in order to convert the cash flow of debt indexed to the TJLP(1) to U.S. dollars, in loans and financing contracts with BNDES. In these operations, Vale pays fixed and/or floating rates (Libor) in U.S. dollars and receives remuneration linked to the TJLP.
- Protection program of loans and financing in reais with fixed rates: In order to reduce the volatility of the cash flow, swap transactions have been made in order to convert the cash flow of debt denominated in reais at fixed rate to US dollars in loans contracts with BNDES. In these operations, Vale pays fixed rates in U.S. dollars and receives fixed rates in reais.
- Protection Program for loans and financing in Euros: In order to reduce the volatility of the cost of debt in US dollars, swap transactions were made to convert the cash flow of debts in euros for U.S. dollars. These operations were used to convert the flow of part of the debts in euros, with nominal value of up to 750 million each, issued in 2010 and 2012 by Vale. In these operations, Vale receives fixed rates in Euros and pays compensation linked to fixed floating rates in US dollars.

On December 31, 2013, the amount of the principal and of the debt's interest rate in Brazilian real converted through swaps in US dollars was R\$ 14,295.0 millions (US\$ 6,102.2 millions) and the amount of the principal and of the debt's interest rate in Euros converted through swaps into US dollars was 1,000 million (US\$ 2,148.9 millions). The average cost of these operations was 2.87% per year after the swapping. Due to the market's liquidity conditions, the average term of swap operations may be lower than the debt's average term.

- Exchange hedge program for disbursements in Canadian dollars: In order to reduce the volatility of cash flow, forward operations were made to mitigate the exchange exposure arising out of the unmatched currencies in US dollars revenue and Canadian dollars disbursements.
- Protection program for nickel operations: The objective of this program is to reduce the volatility of cash flows, and eliminate the decoupling between the pricing of the nickel purchase (concentrated, cathode, sinter, and other types) and the resale period of the processed product. The products purchased are raw material used in the process of production of refined nickel. In this case, operations usually made are the selling of nickel for future liquidation either in the Stock Market (LME) or over-the-counter.

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(1) Due to liquidity restrictions in the TJLP derivative markets, some swap operations were contracted according to CDI equivalence.

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- Sales program for nickel at a fixed price: aiming to maintain its exposure to fluctuations in the price of nickel, it has been carried out derivative transactions to convert to a floating-price basis commercial nickel contracts with those clients seeking to fix the price. The operations are intended to ensure that prices for these sales are equivalent to the average price of the London Metal Exchange (LME) upon physical delivery to the customer. Typically, operations made within this program are purchases of nickel for future liquidation, either in the Stock Market (LME) or over-the-counter. These operations are reverted before the original maturity date in order to match with the dates of liquidation of the commercial contracts that had a fixed price.
- Protection program for selling of copper scrap: Hedge operations were made in order to reduce the volatility of the cash flow and eliminate the mismatching between the pricing period of the purchase of copper scrap. Copper scrap bought is combined with other inputs in order to manufacture copper for final customers. In this case, operations usually made are sales for future liquidation either in the Stock Market (LME) or over-the-counter.
- Hedge Program for purchase of fuel oil - Bunker Oil: In order to reduce the impact of fluctuations in the price of fuel oil (Bunker Oil) when procuring freight, and hence reduce the volatility of Company's cash flow, hedge operations were carried out. The operations are usually made by the contracting of future purchases.

*Hedge Accounting*

According to the Accounting for Derivative Financial Instruments and Hedging Activities pronouncement, all derivatives, assigned in hedge relations or not, are recorded in the balance sheet at fair value and gains and losses in fair value are recorded in the current result, unless when qualified as hedge accounting. A derivative should be assigned in hedge to be qualified as hedge accounting. These rules include determining which portions of hedge are deemed to be effective or non-effective. In general, a hedge relation is effective when a change in fair value is compensated by an equal and contrary change in the fair value of the hedged item. According to these rules, effectiveness tests are run to evaluate the effectiveness and quantify the non-effectiveness of the hedges.

A cash flow hedge is a protection against the exposure to volatility in the expected future cash flow, attributable to a specific risk, as a future purchase or sale. If a derivative is designated as cash flow hedge, the effective portion in the changes of derivative fair value is recorded in other comprehensive income, and recognized in the result when the hedged item affects the period result. The non-effective portion of the changes in derivative fair value designated as hedge is recorded in result. If a portion of the derivative contract is excluded for effectiveness test purposes (for instance the value in time), the value of such excluded portion is included in the result.

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**d. Parameters used for managing those risks**

The parameters used to check the qualification or disqualification of the Company's exposure are:

- (i) verification of execution of the programs mentioned in 5.2(c) above;
- (ii) analysis and constant monitoring of the contracted volumes, and
- (iii) adjustment to the adequacy of maturity dates, taking into account their corresponding protection or hedge strategies, guaranteeing the framing of our exposures. The failure to match exposure and protection strategies may occur if:
  - a. the protection volumes/amounts are higher than the respective exposure volumes/amounts;
  - b. the exposure that is protected ends; or
  - c. the maturity dates of protection strategies and the respective exposures no longer match.

To avoid potential non-matching due to item (iii.a) above, the criterion adopted is periodic follow up of volumes/amounts to be realized used as basis to propose strategy proposals. In the case of protection of input prices, for instance, if consumption updated estimates point to a decrease in volumes compared to initial estimates used to propose protection strategies, protection strategy volumes will be adjusted accordingly.

To avoid potential non-matching due to item (iii.b) above, if during periodic follow up the initial exposure fails to be realized, the protection strategy ends immediately (unwind position).

To avoid potential non-matching due to item (iii.c) above, the company constantly checks the alignment between protection strategies and the initially estimate exposure maturity.

**e. If the Company uses various financial instruments with various objectives for asset protection (hedge) and what these goals are**



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When needed, the company may allocate specific risk limits to management activities requiring those, including, without limitation, limits on market risk, corporate and sovereign risks, according to acceptable limits to corporate risk.

- Sale of Vale's future gold production (byproduct): Vale Switzerland S.A. concluded, after approval by the Board of Directors, final contracts with Silver Wheaton Corp. (SLW), a Canadian company with shares negotiated in the Toronto Stock Exchange and New York Stock exchange, to sell 70% of the payable gold flow produced as a byproduct in certain nickel mines in Sudbury for 20 years, and with Silver Wheaton (Caymans) Ltd. to sell 25% of the payable gold flow produced as a

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byproduct in the Salobo copper mine for the longevity of the mine. In addition to the original payment of US\$ 1.9 billion in cash, Vale Switzerland received 10 million SLW warrants at a strike price of US\$ 65.00 for 10 years. Additionally, Vale will receive cash payments in the future for every ounce (oz.) of gold delivered to SLW as per the agreement, at the lowest value between US\$ 400 per ounce (plus an annual adjustment for the 1% inflation starting in 2016 in the Salobo case) and the market price. The transaction releases a considerable amount contained in the Vale's world class base metal assets, to the extent that it attributes to the payable gold flow produced as a byproduct of Salobo the amount of US\$ 5.32 billion, in addition to the payment of US\$ 400 per ounce of gold delivered, given that there will be no additional expenses for extracting the gold found in the copper concentrate produced in Salobo.

- Position in embedded derivatives: Vale's cash flow is also vulnerable to several market risks associated with contracts that contain embedded derivatives or that work as derivatives. From Vale's perspectives, these include, but are not limited to, commercial contracts, purchase agreements, lease agreements, bonds, insurance policies and loans. The embedded derivatives observed on December 31, 2013 were the following: 1) Purchase of intermediate products and raw materials. Purchase agreements for raw materials and nickel concentrate that contain price provisions based on the future price of copper and nickel. These provisions are considered embedded derivatives. 2) Gas purchase for the pelleting company in Oman. The *Companhia de Pelotização Vale Omã* (LLC), a Vale subsidiary, has a natural gas purchase agreement with a clause establishing an award that may be paid if the sale price for Vale's pellet is greater than a specific price pre-determined in the gas supply contract. This clause is considered an embedded derivative.

**f. Organizational structure for risk management control**

The Executive Board for Risk Management, created by the Board of Directors, is the main body in the risk management structure, being responsible for supporting the Executive Board in risk assessment and for issuing opinions on the risk management at Vale Group. It is also responsible for monitoring and managing corporate risks, as well as supervising and reviewing the main corporate risk management principles and instruments, in addition to periodically reporting to Vale Executive Directors on the main risks and respective exposures. For more information about the members of our Executive Board for Risk Management, see item 12.7 in this Reference Form.

The financial committee is responsible for issuing opinions on Vale corporate risk policies. The Board of Directors is responsible for approving such policies.

The Executive Board is responsible for approving policy developments into rules, regulations and responsibilities and for notifying the Board of Directors on such procedures.

Risk management guidelines and instructions complement the corporate risk management policy and define practices, processes, controls, roles and responsibilities in the Company regarding risk management.

In Vale, the area formally responsible for risk management is the Corporate Risk Management Department, directly responding to the Financial and Investor Relations Executive Directors, and includes Market and Credit Risk Management,



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Operational Risk Management, Internal Controls and Insurance. Depending on the type of risk, management is centralized or decentralized. Several other departments act jointly in the integrated risk management process.

The recommendation and implementation of derivative-related financial operations are carried out by independent areas. It is the responsibility of the area of risk management to define and propose to the Executive Board for Risk Management operations or measures to mitigate market risk consistent with Vale's strategy. It is the responsibility of the financial area to carry out the transactions involving derivative contracts. The independence between areas ensures effective control over these operations.

**g. Adequacy of the operational structure and internal controls to verify the effectiveness of the policy adopted**

In case of market risks, the monitoring and periodic assessment of Vale's consolidated position of financial instruments used to mitigate market risks allow it to keep pace with the financial results and the impact on cash flow and ensure that the goals originally outlined are met. The fair value calculation of the positions is made available monthly for management monitoring.

Several areas act as *compliance* in the process of risk management: the back-office, part of the General Board of Financial, is responsible for confirming the financial characteristics of transactions as well as the counter-parties with which the operations were performed, report the fair value of the positions. This area also assesses whether the operations were performed according to internal approval given. As well as this area, the area of internal controls, which is part of the Department of Corporate Risk Management, acts to verify the integrity of the controls that mitigate risks in the contracted transactions within the above mentioned governance criteria.

In case of other risks, additionally to the risk management area, there are several other areas responsible for risk management.

Additionally, internal audit also participates in the compliance process with regulations.

**5.3 Significant changes in key market risks**

There were not significant changes in the main market risks during the period.

**5.4 Other relevant information**

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In line with the integrated view of risks exposure, Vale considers in risk management, additionally to market risk management, liquidity risk, the risk from the obligations assumed by third parties to the Company (credit risk),

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those inherent to inappropriate and deficient internal processes, personnel, systems or external events (operational risk), and others.

**Credit Risk**

Vale's credit risk arises from potential negative impacts in its cash flow due to uncertainty in the ability of having counterparts meet their contractual obligations, and transaction with derivative warrants, deposit payments to suppliers, and cash investments. To manage that risk, Vale has procedures and processes, such as credit limits control, obligatory exposure diversification through several counterparts and monitoring the portfolio's credit risk.

Vale's counterparts may be divided into three categories: clients, responsible for obligations represented by receivables related to sales in installments; financial institutions with whom Vale maintains its cash investments or acquires transactions with derivatives; and suppliers of equipment, products and services, in case of anticipated payments.

Regarding credit risk, the company adopts the following management standards:

*Credit Risk Assessment for commercial operations (sales to customers)*

For the commercial credit risk, which arises from sales of products and services to final customers, the Risk Management Department, according to current powers, approves or requests the approval of credit risk limits for each counterpart. Besides that, the Executive Board annually sets global commercial credit risk limits for client portfolio.

Vale attributes a credit risk classification for each client based on a credit risk assessment quantitative method, using three main information sources: i) the expected default frequency ( Expected Default Frequency or EDF ) found by the KMV model (Moody's); ii) credit ratings attributed by the main international rating agencies; and iii) client's financial statements to make an economic-financial analysis based on financial indicators.

Whenever deemed appropriate, the quantitative credit analysis is complemented by a qualitative analysis which takes into consideration the payment history of that counterpart, the time of relationship with Vale and the strategic position of the counterpart in its economic sector, and other factors.

Depending on the counterpart's credit risk or the consolidated credit risk profile of Vale, risk mitigation strategies are used to minimize the Company credit risk in order to achieve the acceptable risk limit approved by the Executive Board. The main credit risk mitigation strategies include credit insurance, mortgage, credit letter and corporate collaterals.



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Vale has a well-diversified accounts receivable portfolio from a geographical standpoint, China, Europe, Brazil and Japan being the regions with more significant exposures. According to each region, different guarantees can be used to enhance the credit quality of the receivables.

The Company controls its account receivables portfolio through Credit and Cash Collection committees, in which representatives from risk management, cash collection and commercial departments periodically monitor each counterpart position. Additionally, Vale maintains credit risk systemic controls that block additional sales to counterparties with past due receivables.

*Credit Risk Assessment for treasury operations (cash flow investments and derivative operations)*

The control of the exposure from cash investments and derivatives instruments is done through the following procedures: annual approval by the Executive Board on credit limits by counterpart, control of portfolio diversification, counterparties' spread variations and overall credit risk of treasury portfolio. There is also a monitoring of all positions, control of exposure versus limits, and periodical reporting to the Executive Board for Risk Management.

The calculation of exposure to a specific counterpart that has derivative transactions with Vale, we consider the sum of exposures of each derivative acquired with this counterpart. The exposure for each derivative is defined as the future value calculated by the due date, considering a variation of market risk factors affecting the value of the derivative instrument.

Vale also uses a risk assessment classification to evaluate the counterparties in treasury operations, following a method similar to that used for commercial credit risk management, for purposes of calculating the possibility of counterpart default.

According to the type of counterpart (banks, insurance companies, countries or corporations), different variables are used: i) the expected default frequency from the KMV model; ii) credit spreads found in CDS (Credit Default Swaps) or in the Bond Market; iii) credit ratings attributed by the main international rating agencies; and iii) client's financial statements to make an economic-financial analysis based on financial indicators.

**Liquidity Risk**

The liquidity risk arises from the possibility that Vale might not perform its obligations on due dates, as well as face difficulties to meet its cash flow requirements due to market liquidity constraints.

To mitigate such risk, Vale has a revolving credit facility to help manage short term liquidity and to enable more efficiency in cash management, being consistent with the strategic focus on cost of capital reduction. The revolving





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credit lines available were acquired from a syndicate of several global commercial banks

**Operational Risk**

Operational risk management is the structured approach Vale uses to manage the uncertainties related to the eventual deficiency or default in internal processes, personnel, systems, and external events, in compliance with the ISO 31000 s principles and guidelines.

The main operational risks are monitored periodically, securing the effectiveness of current key controls in of prevention/mitigation and the execution of risk treatment strategy (establishment of new controls and action plans, changes in environmental risk, transfer of part of the risk by acquiring insurance, etc.).

Therefore, it is Vale policy to maintain a clear perspective of the main risks, allocating capital to approach them systematically and efficiently way.

**Capital Management**

The purpose of the Company capital management policy is to seek a structure that ensures continuity of its business, in the long term. In this view, the Company has been able to generate value to shareholders, through the payment of dividends and capital gains, while maintaining a debt profile appropriate to its activities, with well-distributed amortization along the years (on average 10 years), thus avoiding concentration in a specific period.

**Insurance**

Vale acquires several types of insurance policies, including: operational risk insurance, engineering (project) insurance, credit risk insurance, liability, life insurance for employees, etc. The coverage of these policies, similar to those used in general in the mining industry, are acquired according to company s defined goals, the corporate risk management practices and limitations imposed by the global insurance and reinsurance markets.

Insurance management is done with the support of insurance committees existing in different operational areas of the Company. Management instruments used by Vale include captive reinsurers that allow for the retention of part of the risk, acquiring insurances on competitive basis, as well as direct access to the main insurance and reinsurance international markets.



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**6.1/6.2/6.4 Establishment of the Company. Company Lifetime and Date of Filing with CVM**

<b>Date of Establishment of Issuer</b>	01.11.1943
<b>Legal Form of the Issuer</b>	Mixed economy Company
<b>Country of Establishment</b>	Brazil
<b>Company Lifetime</b>	Company lifetime Undetermined
<b>Date of Filing with CVM</b>	01.02.1970

**6.3 Brief History**

Vale was initially founded by the Brazilian Federal Government (Government of Brazil) on June 1, 1942, through Decree-Law No. 4352, and definitively on January 11, 1943, by the Assembly for the Definitive Constitution of the Companhia Vale do Rio Doce S.A., in the form of mixed economy company, aiming to mine, trade, transport and export iron ore from the Itabira mines, and run the Vitória-Minas Railroad (EFVM), which carried iron ore and agricultural products from Vale do Rio Doce, in south-eastern Brazil, to the port of Victoria, located in Espírito Santo.

The privatization process was initiated by the Company in 1997. Under Privatization Decree PND-A-01/97/VALE and the Resolution of the National Privatization Council - CND paragraph 2, of March 5, 1997, the Extraordinary General Assembly approved on April 18, 1997 the issue of 388,559,056 participatory non-convertible debentures, with a view to guaranteeing its pre-privatization shareholders, including the Federal Government itself, the right to participation in revenues from Vale's and its subsidiaries' mineral deposits, which were not valued for purposes of fixing the minimum price in the auction for the privatization of Vale. The Participatory Debentures were allocated to the shareholders of Vale in payment of the redemption value of preferred class B shares issued as bonus, in the proportion of one share owned by holders of class A common and preferred shares at the time, through the part capitalization of Vale's revenue reserves. The Participatory Debentures could only be traded with prior authorization of CVM, as of three months from the end of Secondary Public Offering of Shares under the privatization process.

On May 6, 1997 the privatization auction was held, when the Brazilian government sold 104,318,070 Vale common shares, equivalent to 41.73% of the voting capital for Valepar SA (Valepar), for approximately R\$ 3.3 billion.

Later, under the terms of the Bid, the Brazilian government sold another 11,120,919 shares representing approximately 4.5% of the outstanding common shares and 8,744,308 class A preferred shares, representing 6.3% of class A shares in circulation, through a limited offer to the employees of Vale.

On March 20, 2002 a Secondary Public Offering of Shares issued by Vale was held, in which the Brazilian Government and the National Bank for Economic and Social Development (BNDES) each sold 34,255,582 Vale common shares.

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The demand by investors in Brazil and abroad was substantial, exceeding supply by about three times, which led to the sale of the entire batch of 68,511,164 shares. A portion of about 50.2% was posted in the Brazilian market and the remainder was sold to foreign investors. Later, on October 4, 2002, the proper certification of the Participatory Debentures was obtained from CVM, the Securities Commission, allowing their trading on the secondary market.

**Vale in 1997**

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**Vale in 2013**

The following describes the most significant historical events in the history of the Company since its incorporation:

**1942**

- President Getulio Vargas, by Decree-Law n° 4352 of June 1, 1942, sets out the basis on which

Companhia Vale do Rio Doce SA would be organized. By Decree-Law, the Brazilian Company for Mining and Metallurgy and Mining Company Itabira would be expropriated.

**1943**

- Vale is constituted on January 11, 1943, as mixed economy Company, pursuant to Decree-Law n ° 4.352/42.

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- Listing of Vale shares on the Rio de Janeiro Stock Market (BVRJ) in October 1943.

### 1944

- First business with Vale shares on the BVRJ occurred in March 1944.

### 1952

- The Brazilian Government takes definitive control of Vale's operational system.

### 1953

- First shipment of iron ore to Japan.

### 1954

- It revises its business practices abroad, and proceeds to directly contact steel mills, without the intermediation of traders.

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**1962**

- Signed long-term contracts with Japanese and German steel mills.

**1964**

- Opening of Vale's first office outside of Brazil in Dusseldorf, Germany.

**1966**

- Opening of the Port of Tubarão, in Vitória, in Espírito Santo. This is connected to the iron ore mines by the Vitoria to Minas Railroad.

**1967**

- Geologists of the Southern Mining Co., a subsidiary of United States Steel Corp. (U.S. Steel), record the occurrence of iron ore in Carajás, Pará State.

**1968**

- Vale shares become part of the IBOVESPA index.

**1969**

- Inauguration of Vale's first Pellet Plant in Tubarão, in Espírito Santo, with capacity for 2 million tons/year.

**1970**



- Agreement makes Vale the majority shareholder of the Carajas venture in Para State, along with U.S. Steel.

**1972**

- Vale signs agreement with Alcan Aluminum Ltd. of Canada for a project to mine bauxite in Rio Trombetas, where Mineração Rio do Norte (MRN) was set up.

**1974**

- Vale becomes the largest exporter of iron ore in the world, with 16% of seaborne iron ore market.

**1975**

- For the first time, Vale issues bonds in the international market, worth 70 million marks, with the intermediation of Dresdner Bank.

**1976**

- Decree No. 77.608/76 grants Vale the concession to construct, use and operate the railroad between Carajás and São Luís, in Pará and Maranhão states, respectively.

**1977**

- Vale announces priority for the Carajas Project, in order, from 1982, to start the export of iron ore through the Port of Itaqui (MA).

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**1979**

- Beginning of the effective implementation of the Carajás Iron Ore Project, adopted as the main goal of Vale's business strategy.

**1980**

- Federal Government approves the Carajas Iron Project and gives financial backing.

**1982**

- With the start of Valesul Alumínio SA operations in Rio de Janeiro, Vale joins the aluminum sector and helps to reduce imports of the metal into Brazil.

**1984**

- Inauguration of Vale office in Japan.

**1985**

- On February 28, the Carajás railroad (EFC) is inaugurated and handed over to Vale.
- Inauguration of the Carajás Iron Ore Project, which increases the productive capacity of the company, now organized in two separate logistic systems (North and South).

**1986**

- Start of operation of the Port Terminal of Ponta da Madeira, in São Luís in the state of Maranhão.

**1987**

- The EFC begins operating on a commercial scale.

**1989**

- Implementation of the Profit Sharing Program for Vale employees.

**1994**

- In March, Vale launches its program for American Depositary Receipts (ADR) Level 1, negotiable on the OTC market of the United States.

**1995**

- Vale is included in the National Privatization Program by Decree No. 1510 of June 1, signed by the President.

**1996**

- On October 10, the National Privatization Council (CND) approves the model for privatization of Vale.

**1997**

- BNDES releases on March 6, the terms of the bidding for the privatization of VALE.
- On April 18, Vale issues 388,559,056 Participatory Debentures that can only be traded with prior authorization of the CVM, as of three months from the end



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of Secondary Public Offering of Shares under the terms of the privatization process.

- On May 6, Vale is privatized in an auction held at the Stock Exchange of Rio de Janeiro. Valecom consortium, put together by the Votorantim Group, and the Brazil Consortium, led by Companhia Siderurgica Nacional (CSN) took part in the auction. The Brazil Consortium buys 41.73% of common shares of VALE for US\$ 3,338 million at present-day values.

**1998**

- In the first year after privatization, Vale reaches 46% growth in profit over 1997.

**1999**

- It has the largest profit in its history so far: US\$ 1.251 billion.

**2000**

- On February 2, Vale opened the Container Terminal of the Port of Sepetiba.
- In May, Vale acquires Mineração Socoimex S.A. and S.A. Mineração da Trindade (Samitri), companies producing iron ore, initiating the consolidation of the market for Brazilian iron ore.
- On June 20, Vale announced the listing of its American Depositary Receipts (ADRs), representing preferred shares of the Company on the New York Stock Exchange (NYSE) in a DR Level II program approved by the CVM.
- On August 31, the Extraordinary General Meeting approves the merger of a wholly owned subsidiary Mineração Socoimex S.A, without issuing new shares, aiming to add to the assets of the Company the Gongo Soco mine, with reserves of high grade hematite in the iron quadrangle in Minas Gerais.

**2001**

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- In February, the Board of Directors of Vale authorizes the start of the process of divesting its holdings in the sector of pulp and paper.
- On February 19, the shares of S.A. Mineração da Trindade (Samitri) are incorporated by Vale, with no increase of capital and without issuing new shares, by using shares held in treasury, as authorized by the CVM.
- In March, shareholdings involving Vale and CSN are unwound.
- In April, Vale acquires 100% shareholding in Ferteco Mining SA, the third largest producer of iron ore in Brazil at the time.
- On October 1, the General Assembly of Shareholders approves the incorporation of wholly owned subsidiary S.A. Mineração da Trindade (Samitri), in line with guidelines for administrative and financial streamlining.

### 2002

- In March, the pellet plant in Sao Luis, in Maranhão state, is officially opened.
- On March 21, the comprehensive sale offer of 68,511,164 Vale common shares owned by the Brazilian Government and BNDES is concluded, of which approximately 50.2% was placed in the Brazilian market and the remainder sold to outside investors. The selling price in Brazil was R\$ 57.28 per share and abroad US\$ 24.50 per ADR.

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- Vale common shares start to be traded on the NYSE in the form of ADRs, in program level III.
- The Company's common shares also start to be traded on the Madrid Stock Exchange - Latibex.
- The foundation stone of the Sossego Copper Project, State of Pará, is laid.
- On October 4, VALE obtains from the CVM the registration of Publicly Traded Participatory Debentures.
- On December 16, the General Assembly of Shareholders approves Vale's Dividend Policy in order to increase both transparency and financial flexibility, taking into account the expected path of the Company's cash flow.
- On December 27, the Extraordinary General Meeting approves the Amendment to the Bylaws in order to (i) expand the Company's activities in energy and logistics, (ii) adjust the Statutes to the new rules introduced by Law No. 10303 of October 31, 2001 and (iii) introduce the principles of best corporate governance practices.

**2003**

- On February 14, Vale completes the acquisition of 100% stake in Elkem Rana AS (Rana), a Norwegian producer of ferroalloys, for the price of US\$ 17.6 million.
- On March 31, Vale acquires 50% stake in Caemi Mineracao e Metalurgia S.A. (Caemi) for US\$ 426.4 million.
- On August 29, Vale incorporates the wholly owned subsidiaries Celmar S.A. - Indústria de Celulose e Papel S.A. and Ferteco Mineração S.A.
- On November 7, Vale completes the restructuring of shareholdings in logistics companies, which was aimed at the elimination of the relationship between Vale and CSN in the shareholding structure of the Ferrovia Centro-Atlantica SA (FCA), Companhia Ferroviária do Nordeste (CFN) and CSN Aceros S.A. (CSN Aceros).

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- On December 12, Vale adheres to Level 1 of the Program for Differentiated Corporate Governance Practices established by the BM&F Bovespa Exchange.

- Continuing the process of simplifying its operating structure, on December 30, Vale incorporates the following wholly owned subsidiaries: Rio Doce Geologia e Mineração S.A. Docegeo (Docegeo), Mineração Serra do Sossego S.A. (MSS), Vale do Rio Doce Alumínio S.A. Aluvale (Aluvale) and Mineração Vera Cruz S.A. (MVC).

### 2004

- On July 02, the Sossego mine, the first copper mine in Brazil, opens in the State of Pará. This project was completed in record time.

- In November, Vale wins an international bidding for coal mining in the Moatize region of northern Mozambique.

- In December, Vale signs a memorandum of understanding with ThyssenKrupp Stahl AG (ThyssenKrupp) for the construction of an integrated steel slab plant with a capacity of 5 million tons in the State of Rio de Janeiro.



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**2005**

- Vale is the first Brazilian company to achieve a risk score greater than the host country and the only one to have this recognition for three different rating agencies: reaching, thus, Investment Grade, given by Moody's, and confirmed by Standard & Poor's and Dominion Bond.

- In July, Vale Belvedere Pty Ltd. signs an agreement with two Australian mining companies to carry out studies to exploit the Belvedere Underground Coal Project, located in the State of Queensland, Australia.

- On September 22, it launches *Vale Investir*, a program that allows investors to automatically reinvest Brazilian funds from shareholders payments - dividends and/or interest on capital - to buy shares of the Company.

- In November, Vale agrees to acquire a minority stake in Ceara Steel, a steel slab project aimed at exporting from the state of Ceará, with a nominal capacity of 1.5 million tons of slabs per year.

- The Company consolidates its entry into the copper concentrate industry, with the first full year of operation of the Sossego Mine and sales to 13 customers in 11 different countries.

- In the last quarter of 2005, Vale acquires 99.2% of Canico Resources Corp. (Canico), which owns the lateritic nickel project Onça Puma, located in Para State, for approximately US\$ 800 million.

**2006**

- In January, Vale acquires mineral resources, land and mining equipment from the Rio Verde Mineração (Rio Verde) for US\$ 47 million.

- In February, the acquisition of all shares of Canico is completed, these being removed from trading on the Toronto Stock Exchange.

- In March, it inaugurated the expansion of production capacity is inaugurated of alumina refinery Alunorte - Alumina do Norte do Brazil S.A. (Alunorte), located in Barcarena in the State of Pará.

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- On May 3, Vale completes incorporation of shares of Caemi, now holding 100% of the shares.
- On July 3, Vale buys 45.5% stake in Valesul Alumínio S.A. and now owns 100% of the shares.
- On August 11, the Company announces that it intends to offer to acquire all common shares of Inco Limited (Toronto Stock Exchange - TSX and New York Stock Exchange - NYSE under the symbol N) (Inco). The offer is consistent with long-term corporate strategy and strategy for the non-ferrous metals business of Vale.
- In the third quarter, Vale divides the administration of former Southern System for production and distribution of iron ore into two departments: the South-eastern System and the Southern System, and began to report production separately for each system.
- In September, Mineracoes BR Holdings GmbH buys 25% stake in a joint venture, Zhuhai YPM, to build a new pellet plant in Zhuhai, in the region of Guandong, China.
- On October 5, Vale opens the Brucutu Project, the largest mine/plant complex in the world for initial production capacity of iron ore, located in São Gonçalo do Rio Abaixo in Minas Gerais.

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- On October 26, Vale concludes the financial settlement of a major part of the acquisition of Canadian miner Inco Ltd., the second largest nickel producer in the world, effecting payment of US\$ 13.3 billion for the purchase of 174,623,019 shares issued by Inco. On November 6, Vale joins the control group of Usinas Siderúrgicas de Minas Gerais S.A. - Usiminas.

**2007**

- In January, Vale completed the expansion of iron ore production capacity in Carajás, which now reaches 100 million tons per year.
- On January 30, the acquisition of Inco (now Vale Canada Limited) is ratified at Vale Extraordinary General Meeting. The nickel business is now managed from Toronto as well as activities related to marketing and sales of metals. With the completion of its acquisition of Inco, Vale becomes the second largest mining and metals company in the world by market value.
- On February 16, Vale announces secondary public offering of shares of Log-In Logística Intermodal SA (Log In).
- On February 26, Vale signs a sale and purchase agreement to acquire the Australian AMCI Holdings Australia Pty Ltd. (AMCI), which operates and controls coal assets through holdings in joint ventures.
- In March, Vale acquires an 18% stake in Ferro-Gusa Carajás S.A. (FGC), which belonged to Nucor do Brasil S.A for 20 million dollars, and now holds a 100% stake in FGC.
- In May, Vale signs a usufruct contract, and now controls the entire capital of the MBR, for the following 30 years.
- On May 2, Vale signs a freight contract for 25 years with Bergesen Worldwide (B.W. Bulk), which provides for the construction of the four largest bulk carriers in the world, each with a capacity of 388 thousand tons.
- On June 28, the Government of Mozambique approved the mining contract for the operation, by Vale, of the Moatize coal project in the province of Tete in the northwest of the country.
- On August 30, shareholders meeting at an Extraordinary General Meeting, ratify the acquisition of control of AMCI by the Company.

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- On November 29, Vale begins to use the brand Vale in all countries where it operates and at the same time takes on a new global identity.
- On December 21, Vale signs an agreement for commercial exploitation for 30 years of 720 km of the Norte-Sul Railroad (FNS).

### 2008

- In the first half of 2008, Vale launches operations to increase capacity in the production of pellets in Samarco, a (50% -50%) joint venture with BHP Billiton in the Brazilian State of Espírito Santo.
- Vale leases three pellet plants in the Tubarão complex, in Vitória, State of Espírito Santo, owned by the JVs in which it participates (Itabasco, Kobrasco and Nibrasco).

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- On May 5, Vale signs a sale and purchase agreement to acquire the mining and surface rights in the municipalities of Rio Acima and Caeté, State of Minas Gerais.
- In July, Vale makes a global offering of 256,926,766 ordinary shares and 189,063,218 preferred shares, including ADSs, in order to promote investment and strategic acquisitions as well as maximizing the financial flexibility of the Company. The aggregate value of Vale's global offer, after underwriting discounts and commissions, including the values of the exercise of further stock options, was US\$ 12.2 billion. In August, exercising the option of complementary lot, Vale issues 24,660,419 class A preferred shares.
- In connection with the offer above, Vale lists and trades its common and preferred ADSs on Euronext Paris.
- On August 3, Vale orders the building of 12 large ships for carrying iron ore, buys used vessels and signs long term freight contracts. The total investment was US\$ 1.6 billion for the construction of new ships and US\$ 74 million for the purchase of used ships.
- On August 14, Vale announces its intention to invest in building a new steel plant in Marabá in Para State, with an annual production capacity of 2.5 million metric tons of semi-finished steel.
- On October 31, Vale announces a reduction in its rate of production of iron ore, pellets, nickel, manganese, ferro-alloys, aluminum and kaolin, in the face of the impact of global economic crisis on the demand for minerals and metals.
- On December 16, Vale signs with African Rainbow Minerals Limited (ARM) and its subsidiary TEAL Exploration & Mining Incorporated (TEAL) a contract providing for the acquisition of 50% of the capital of a joint venture to hold TEAL subsidiaries for CAD \$ 81 million, therefore increasing the strategic options for Vale to grow in the copper business in Africa.
- On December 23, Vale signs a sale and purchase agreement to acquire 100% of the coal exporting assets of Cementos Argos SA (Argos) in Colombia for US\$ 306 million.

**2009**

- On January 30, Vale signs with Rio Tinto plc (Rio Tinto) a sale and purchase agreement for the acquisition, through cash payment, of iron ore and potash assets, located in Brazil, Argentina and Canada.

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- On March 24, Vale completes the previously announced transaction, and creates a 50%-50% joint venture with ARM for future development and operation of the assets of TEAL, expanding in December 2008 the strategic options for growth in the copper business in Africa.

- On March 27, Vale initiates the construction of the Moatize project, in Tete province, Mozambique. The project involves investments of US\$ 1.3 billion and has a nominal production capacity of 11 million metric tons (Mt) of coal, comprising 8.5 Mt of metallurgical coal and 2.5 Mt of thermal coal.

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- On April 1, the Company concluded the acquisition of the assets of export thermal coal with Argos in Colombia.
- On April 16, Vale completes the sale of all of its 14,869,368 common shares issued by Usiminas and linked to the steel mill's existing shareholders agreement.
- On May 21, the Board of Directors of Vale approve the revised 2009 investment budget for US\$ 9.035 billion as compared with the US\$ 14.235 billion announced on October 16, 2008.
- On May 22, the Extraordinary General Meeting of Vale approves the proposal to change its name from Companhia Vale do Rio Doce SA to Vale SA.
- On June 23, Vale launches a project to produce biodiesel to fuel its operations and projects in northern Brazil, to begin in 2014, using palm oil (dende oil) as feedstock, which will be produced by a consortium between Vale and Biopalma Amazonia SA (Biopalma).
- On July 13, the Company announces that its unionized employees in Sudbury and Port Colborne in Ontario, Canada, are on strike. The same happens on the 1st of August, with the unionized employees of its operation in Voisey's Bay in the province of Newfoundland and Labrador, Canada.
- On July 22, Vale signs a memorandum of understanding (MOU) with ThyssenKrupp to raise its stake in ThyssenKrupp CSA Siderurgica do Atlantico Ltda. (TKCSA) from 10% to 26.87% through a capital injection of EUR \$ 965 million.
- On September 18, Vale completes the acquisition of the operations of iron ore in Corumbá, located in Mato Grosso do Sul, owned by Rio Tinto PLC (Rio Tinto) and other controlled entities.
- On October 19, the Board of Directors of Vale approves the investment budget for 2010, including expenditures of US\$ 12.9 billion dedicated to sustaining existing operations and promoting growth through research and development (R & D) and project execution.

**2010**

- On January 22, integrated subsidiary Valesul Alumínio S.A. (Valesul) enters into an agreement to sell its aluminum assets located in Rio de Janeiro to Alumínio Nordeste S.A., a Metalis group company, for US\$ 31.2 million.

- On the same date, Vale approves at a Special Shareholders Meeting the incorporation of integrated subsidiaries Sociedade de Mineração Estrela de Apolo S.A. (Estrela de Apolo) and Mineração Vale Corumbá S.A. (Vale Corumbá).
- During the first half of the year, Vale closes agreements with its customers in the iron ore business to shift from annual contracts to contracts with values adjusted on a quarterly basis. The new contracts offer more efficiency and transparency for iron ore prices and make it possible to differentiate qualities,



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which help stimulate long-term investment. Besides, customers can learn in advance the price to be paid in the following quarter.

- In the second quarter, Vale acquires a 51% interest in VBG - Vale BSGR Limited ( VBG ) (formerly BSG Resources (Guinea) Limited), which holds iron ore concession rights in Simandou South (Zogota) and iron ore exploration permits in Simandou North (Blocks 1 & 2), Guinea.

- Through a series of transactions in 2010, Vale acquires the phosphate operations of Vale Fertilizantes S.A. (Vale Fertilizantes, formerly Fertilizantes Fosfatados S.A. Fosfertil) and Vale Fosfatados S.A. (formerly Bunge Participações and Investimentos S.A.). The total cost of these acquisitions was US\$ 5.829 billion. The sellers included Bunge Ltd., the Mosaic Company (Mosaic), Yara Brasil Fertilizantes S.A. and other Brazilian companies.

- In May, Vale Internacional S.A. enters into an agreement with Oman Oil Company S.A.O.C. (OOC), an integrated subsidiary of the government of the sultanate of Oman, for the sale of a 30% interest in Vale Oman Pelletizing Company LLC (VOPC), for US\$ 125 million.

- In July, Vale sells to Imerys S.A. 86.2% of its interest in Pará Pigmentos S.A. (PPSA), a kaolin producer, along with other kaolin mining rights, for US\$ 71.3 million (equivalent to R\$ 126.1 million).

- In July, Vale concludes the transaction announced on March 31, 2010, by virtue of which it sells 35% of the total capital of MVM Resources International B.V. (MVM) to Mosaic for US\$ 385 million, and 25% of the total capital of MVM to Mitsui, for US\$ 275 million. MVM manages and operates Bayóvar phosphate rock project in Peru.

- In August, Vale Emirates Ltd. acquired 51% interest in Sociedade de Desenvolvimento do Corredor Nacala S.A. (SDCN) from the Mozambican company Insitec SGPS SA (Insitec) for US\$ 21 million (equivalent to R\$ 36.6 million on the date of disbursement).

- In the fourth quarter, Vale lists Depositary Receipts representing its common and preferred Class A shares (HDRs) on Hong Kong Limited Stock Exchange (HKEX). The HDRs start to be traded on December 8, 2010.

**2011**

- On February 28, Vale announces the completion of the operation with Norsk Hydro ASA (Hydro), announced on May 2, 2010, to transfer all its interests in Albras - Alumínio Brasileiro S.A. (Albras), Alunorte - Alumina do Norte do Brasil S.A. (Alunorte) and Companhia de Alumina do Pará (CAP), receiving in return, through the subsidiary Vale Austria Holdings GmbH, currently known as Vale International Holdings GmbH (Vale Austria), 22% of the outstanding common shares of Hydro and US\$ 503 million in cash. Additionally, Vale Austria sold 60% of Mineração Paragominas S.A. (Paragominas) to Hydro for US\$ 578 million in cash. The remaining 40% will be sold in 3 and 5 years.



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- In February 2011, Vale pays US\$ 173.5 million to acquire the control of Biopalma, in the State of Pará, to produce palm oil (dende oil) as feedstock to manufacture biodiesel.
- On April 28, the Board of Directors approves the acquisition, subject to certain conditions, of up to 9% of the capital of Norte Energia S.A. (NESA), a stake previously held by Gaia Energia e Participações S.A (Gaia). NESA is a company whose sole purpose is the implementation, operation and management of Belo Monte hydroelectric power plant in Pará. In June 2011, Vale concluded the acquisition of 9% of the equity of NESA.
- In June 2011, Vale Emirates Ltd. acquired additional 16% equity of Sociedade de Desenvolvimento do Corredor Nacala S.A. (SDCN) for US\$ 8 million, equivalent to R\$ 12.8 million. The acquisition is aligned with the Company strategy to develop the logistic corridor of Nacala, and continued with the acquisition of 51% of SDCN in September 2010. SDCN has a concession to create the required logistic structure for the flow resulting from coal production expansion in Moatize.
- In July 2011, Vale Logística Integrada S.A. signed an agreement to create a joint venture with Vale Fertilizantes for purposes of exploring the concession of Terminal Portuário da Ultrafertil (TUF), in the city of Santos, State of São Paulo, with imported cargos of sulfur, ammonia and fertilizers in general, being strategically linked to Vale's railroads, upon payment of R\$150 million to Vale Fertilizantes and capital investment in the joint venture of R\$432 million to fund TUF investment project.
- In December 2011, Vale concluded, by its wholly-owned subsidiary Mineração Naque S.A. a public offer auction (IPO) to acquire outstanding shares issued by Vale Fertilizantes. As a result of the IPO, Vale acquired 211,014 common shares and 82,919,456 preferred shares issued by Vale Fertilizantes, representing 83.8% of outstanding common shares and 94.0% outstanding preferred shares of Vale Fertilizantes. Common and preferred shares were acquired by the par value of R\$25.00, in a total amount of R\$2.078 billion.

**2012**

- On February 9, the Board of Directors approved the execution of a lease agreement of potassium mining rights and assets with Petróleo Brasileiro S.A. - Petrobras, for 30 years, which allows continuing with potassium extraction in Taquari-Vassouras and development of the Carnalita Project in the State of Sergipe.
- In April, Vale sold its 61.5% interest in Cadam S.A. concluding the divestment operation by selling the kaolin business beginning in 2010 with the sale of the interest in Pará Pigmentos S.A.
- In June, together with Vale International GmbH and Vale Internacional S.A., Vale concluded the sale of its thermal coal operations in Colombia to CPC S.A.S., an affiliated company of Colombian Natural Resources S.A.S. (CNR), for US\$ 407 million in cash.

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- In May, Vale entered into an operational lease with its affiliate Hispanobras, where Vale leases its pelleting plants owned by Hispanobrás for three years, subject to automatic renewal. The operation was concluded in July 2012.

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- On June 7, Vale Emirates Ltd. acquired an additional 18% interest in Sociedade de Desenvolvimento do Corredor Nacala S.A. (SDCN), holder of the concessions to create the logistic corridor of Vale in Nacala, Mozambique, for US\$ 18.5 million. Consequently, Vale holds 85% of the shares of SDCN.
- On June 27, Vale was granted the prior license (LP) for the iron ore project Carajás S11D, the largest project in the history of Vale, and the largest project in the history of iron ore, with nominal capacity of 90 million annual metric tons (Mtpa) of iron ore. The LP is part of the first phase of licensing of this enterprise. This license signals the approval of its location, conception, and environmental feasibility, establishing the basic requirements to be complied with in the subsequent deployment phase.
- In August, Vale Internacional has informed that it signed a sale agreement for US\$ 600 million and subsequent long term freight agreement for 10 large ore carriers with Polaris Shipping Co. Ltd. (Polaris).
- In October, Vale and Vale Internacional completed the sale of its manganese and ferroalloy operations in Europe to subsidiaries of Glencore International Plc. (Glencore), for US\$ 160 million in cash. Vale also retained Glencore as its marketing agent outside Brazil for metallurgic manganese ore for a five-year period.
- On October 4, the first copper concentrate was produced, upon conclusion of the commissioning of the copper mine processing plant in Lubambe, in the Konkola North project, that includes an underground mine, plant, and related infrastructure, located in the copper belt in Zambia, with estimate nominal capacity of 45,000 metric tons per year of copper concentrate. This operation is part of a joint venture with African Rainbow Minerals Limited, holding 80% of the operation, and the remaining 20% is held by Zambia Consolidated Copper Mines Ltd.
- On December 20, Vale concluded the annual evaluation of Onça Puma and aluminum assets, implying recognition of the impairment before tax of US\$8.2 billion, with accounting impact on 2012 4Q.

**2013**

- On January 31, Vale concluded the option exercised in June 2010, acquiring an additional 24.5% interest in the Belvedere coal project (Belvedere) from Aquila Resources Limited (Aquila), for A\$150 million (equivalent to US\$ 156 million using the AUD/USD rate of 1.04). As a whole, Vale paid US\$338 million for 100% of Belvedere. Belvedere is a future opportunity of growth and is comprised of an underground coal mine located in the South of Bowen Basin, close to the town of Moura, in the State of Queensland, Australia.
- On February 28, Vale concluded the final agreements with Silver Wheaton Corp. (SLW), Canadian company with shares negotiated at the Toronto Stock Exchange and the New York Stock Exchange, to sell 70% of payable gold flows produced as byproduct of some Sudbury nickel mines for 20 years and with Silver Wheaton (Caymans) Ltd. to sell 25% of payable gold flows produced as byproduct of the Salobo copper mine during the mine lifetime, for the initial payment of US\$ 1.9 billion in cash, 10 million in SLW warrants with exercise price of US\$ 65 and 10 year term. Additionally, Vale will receive cash payments



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in the future for each ounce (oz) of gold provided to SLW under the terms in the agreement, at the lowest value between US\$ 400 per ounce (plus annual inflation adjustment of 1% starting in 2016 for Salobo) and the market price.

- On March 11, Vale informed the Government of the Republic of Argentina that the company had suspended deployment of the Rio Colorado project in Argentina.
- On March 14, Vale exercised the preemptive right provided for in the incorporation agreement of Consórcio Capim Branco, acquiring a 12.47% interest of Suzano Papel e Celulose S.A for R\$ 223,030,470.52 in the capital of hydroelectric plants Capim Branco I & II. Consequently, Vale holds 60.89% on Capim Branco I & II, capable of generating 1,524 gigawatts hour per year of power by the end of the concession in 2036.
- On April 29, Vale received the environmental operation license (LO) for railroad terminal Ponta da Madeira (PDM), in the state of Maranhão, issued by the State Secretary of Environment and Natural Resources of Maranhão. The PDM railroad terminal is part of CLN 150, which allows expansion of Carajás logistic capacity to 150 million annual metric tons.
- On May 6, Vale received the environmental installation license (LI) and authorization to remove vegetation for the railroad branch to connect Serra Sul de Carajás to Estrada de Ferro Carajás (EFC), in the State of Pará, issued by the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), which allows beginning the construction of the 101 km railroad branch to connect the storage yard of S11D to EFC. The railroad branch is part of the CLN S11D project, which allows expansion of Carajás logistic capacity to 230 million annual metric tons of iron ore.
- On September 18, Vale entered into agreements to sell 20% of the total capital of VLI S.A. ( VLI ) to Mitsui & Co. Ltd. (Mitsui) for R\$ 1.5 billion and 15.9% of the capital of VLI for R\$ 1.2 billion to the Investment Fund of the Severance Fund – FGTS (FI-FGTS), which is managed by Caixa Econômica Federal.
- On November 14, Vale announced the sale of all its 22% interest in Norsk Hydro ASA (Hydro) for NOK 25.00 per share, summing NOK 11.196 billion, equivalent to US\$ 1.822 billion (equivalent to R\$ 4.218 billion).
- On November 27, Vale announces adherence to the federal tax refinancing agreement (REFIS) related to the payment of income tax and social contribution on net profit of affiliates abroad on profit generated abroad in the period between 2003 and 2012, according to terms set forth by Law 12.865/2013 and Provisional Order no. 627/ 2013. Adherence to REFIS implied the payment to the Federal Revenue Secretariat of R\$ 5.965 billion by the end of November and R\$ 16.360 billion in 179 months, where monthly installments are adjusted according to the SELIC interest rate. Thus, the current net value of payments was estimated by Vale at R\$ 14.425 billion.
- On December 12, Vale concluded the sale of Sociedad Contractual Minera Tres Valles, cathode copper production company in the area of Coquimbo in Chile, for US\$ 25 million (equivalent to R\$ 54 million) to Inversiones Porto San Giorgio S.A (ISG), company controlled by the Chilean group Vecchiola S.A.

- On December 19, Vale entered into agreements with CEMIG Geração e Transmissão S.A. to sell 49% of its 9% interest in Norte Energia S.A. (Norte



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Energia), company responsible for building, operating and exploring the hydroelectric plant of Belo Monte for approximately R\$ 200 million, and creation of a joint venture comprised of power generation assets.

- On December 20, Vale signed an agreement with Israel Chemicals Ltd. (ICL) to sell its 44.25% interest in Fosbrasil, company producer of purified phosphoric acid, located in Cajati, State of São Paulo, for US\$ 52 million.
- On December 23, Vale entered into an agreement with a fund managed by Brookfield Asset Management (Brookfield) to sell 26.5% of its interest in the capital of VLI, for R\$ 2 billion.
- On December 23, Vale informed that it filed with the Superior Court of Justice (STJ) on December 19, a petition for partial dismissal in the process discussing the legality of taxation of profit from affiliates abroad. This dismissal refers to the period between 2003 and 2012. Vale informed that it will continue questioning taxation applicable to the period between 1996 and 2002 and 2013. Should there be a winning decision, Vale will claim immediate return of values paid relative to the period between 2003 and 2012, according to installment payment under the terms in Provisional Order no. 627/2013 and as mentioned in relevant fact published on November 27, 2013, and it will suspend payments for outstanding installments.
- On December 26, Vale promoted an auction, under the terms in CVM Instruction no. 168/1991, as amended, to sell 28,737,367 common shares issued by Log-in Logística Intermodal S.A. (Log-in), company listed in BM&FBOVESPA (ticker symbol: LOGN3), corresponding to all common shares issued by Log-in then held by Vale, for R\$ 8.11 per share, totaling R\$ 233 million. This transaction was concluded on January 2, 2014.

**2014**

- In January, Vale updated its Code of Ethics and Conduct for purposes of obtaining better alignment with its mission, vision, and values, reinforcing ethical standards and updating aspects of the anticorruption and antitrust laws.
- On February 18, Vale closed the offer of infrastructure debentures for R\$ 1 billion and will use net funds from this offer on investments related to the Company infrastructure projects deemed to be priority, under the terms in article 2 in law no. 12.431/2011, as amended.
- In March, the National Bank of Social and Economic Development (BNDES) approved the funding agreement for R\$ 6.2 billion for the deployment of the Carajás Serra Sul S11D and CLN S11D projects. The funding term is for ten years and funds will be disbursed in up to three years, according to the project schedule.

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- On April 14, the transaction announced on September 18, 2013 was concluded, with the transfer of 20% of the capital stock of VLI to Mitsui by R\$ 1.5 billion and 15.9% to Fundo de Investimento do Fundo de Garantia do Tempo de Serviço - FGTS (FI-FGTS), which assets are managed by Caixa Econômica Federal, for R\$ 1.2 billion.
  
- In April, the Republic of Guinea revoked the mining rights for the Simandou and Zogota concession areas held by VBG.

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**6.5 Main corporate events with the company and its affiliates**

**2011**

Sale of aluminum assets

On February 28, 2011, Vale announced the completion, of the operation with Norsk Hydro ASA (Hydro), company listed in the Oslo Stock Exchange and London Stock Exchange (ticket symbol: NHY), to transfer, through subsidiary Vale Austria Holdings GmbH ( Vale Austria ), all its interests in Albras - Alumínio Brasileiro S.A. (Albras), Alunorte - Alumina do Norte do Brasil S.A. (Alunorte) and Companhia de Alumina do Pará (CAP), along with their respective rights of exclusivity, commercial agreements and net debt of US\$ 655 million (equivalent to R\$ 1.0888 billion) for 22% of the outstanding common shares of Hydro, after issuance on February 28, 2011, and US\$ 503 million (equivalent to R\$ 836 million) in cash, after adjustments.

Besides, Vale Austria created a new company, Mineração Paragominas S.A. (Paragominas), and transferred the bauxite mine of Paragominas and all the other mining rights relating to bauxite in Brazil. As a part of this operation, Vale Austria sold 60% of Paragominas to Hydro for US\$ 578 million in cash (equivalent to R\$ 960 million) after adjustments to the working capital. The remaining portion will be sold in two equal parts, 3 and 5 years after conclusion of the transaction, for US\$ 200 million in cash each.

Pursuant to the terms of the agreement, Vale Austria transferred to Hydro: (a) 51% of the total capital of Albras; (b) 57% of the total capital of Alunorte; (c) 61% of the total capital of CAP; and sold (d) 60% of the total capital of Paragominas.

Vale Austria subscribed 447,834,465 shares of Hydro or 22% of its 2,035,611,206 outstanding shares, approximately US\$ 3.5 billion (equivalent to R\$ 5.866 billion) according to the closure price of Hydro, and NOK/USD exchange rate on February 25, 2011.

Acquisition of Biopalma in Brazil

In February 2011, Vale acquired the majority stock of Biopalma da Amazônia S.A. Reflorestamento, Indústria e Comércio, in the State of Pará (Biopalma). The amount of the transaction was R\$ 173.5 million, paid in cash and at present Vale owns a 70% interest in this partnership. The right to vote is regulated by the shareholder s agreement. Biopalma will produce palm oil (dende oil) as feedstock to manufacture biodiesel, and most of the production will be used for a B20 blend (a mixture of 20% of biodiesel and 80% of regular diesel oil), as a fuel for our fleet of locomotives, equipment and heavy machinery. Our investment in production of biodiesel forms part of our strategic

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focus on global sustainability. The operation was approved by Brazilian regulating authorities on May 18, 2011.

Acquisition of interest in the Usina Hidrelétrica de Belo Monte

On April 28, 2011, the Board of Directors approved the acquisition of up to 9% of the capital of Norte Energia S.A. (NESA), a stake then held by Gaia Energia e Participações S.A (Gaia). NESA is a company whose sole purpose is the implementation, operation and management of Belo Monte hydroelectric power plant in the Brazilian State of Pará. Vale reimbursed Gaia for its capital contributions to NESA and undertook to make future capital contributions as a result of the acquired stock interest, estimated at R\$ 2.3 billion (equivalent to US\$ 1.4 billion). This acquisition is consistent with the Company strategy to reduce operating costs and minimize the price of power and the risks of supply. The operation was completed on June 30, 2011, upon transfer to Vale of 9% of the shares issued by NESA, held by Gaia, and execution of the amendment to NESA's shareholders' agreement to regulate the entrance of Vale, and other terms. The operation was filed before CADE - the Administrative Board for Economic Defense and approved with no restrictions on August 31, 2011.

Takeover to acquire shares of Vale Fertilizantes S.A.

In June 2011, Vale announced submission to the Board of Directors of a proposal by the executive directors for a takeover of up to 100% of shares issued by the subsidiary Vale Fertilizantes, aiming to close its capital. The takeover was approved by the Board of Directors on June 30, 2011 and was registered before the Brazilian Securities Commission (CVM) on July 15, 2011. The offer's tender was issued on November 10, 2011. The Takeover comprised the payment for shares in cash by the subsidiary Mineração Naque S.A., at R\$25.00 per share, either common or preferred shares issued by Vale Fertilizantes, corresponding to a 41% premium over the average price of preferred shares traded in the last 20 trading days prior to the disclosure of the offer, in June 2011. On December 12, 2011, Vale concluded the Offer, resulting in the acquisition of 211,014 common shares and 82,919,456 preferred shares issued by Vale Fertilizantes, representing 83.8% of the common shares and 94.0% of preferred shares. On December 23, 2011 a Fertilizantes has its registration as open capital company cancelled before CVM. On January 24, 2012, Vale Fertilizantes redeemed 5,314,386 shares, balance of shares issued by the company, and Vale now holds, through subsidiaries, 100% of common and preferred shares issued by Vale Fertilizantes. The total disbursement by Vale and Vale Fertilizantes was R\$2.2 billion.

Agreement to explore concession of port terminal in Santos

In July 2011, Vale Logística Integrada S.A. signed an agreement to incorporate TUF Empreendimentos e Participações S.A., a *joint venture* with Vale Fertilizantes for purposes of exploring the concession of the Terminal

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Integrador Portuário Luiz Antonio Mesquita (TIPLAM – former TUF). TIPLAM is located in the city of Santos, State of São Paulo, and moves imported cargo of sulfur, ammonia and fertilizers in general, strategically connected to Vale's railroads. The joint venture positions Vale to serve, in a competitive way, the agribusiness growth in Brazil.

**2012**

Lease of mining potash rights and assets

On April 23, 2012, Vale signed with Petróleo Brasileiro S.A. (Petrobras) the renewal of the lease agreement for potash mining rights and assets in Sergipe for a thirty-year period that allows continuing to mine potash in Taquari-Vassouras and the development of the Carnalita project. In the production phase, there is an estimate that Carnalita will be the largest potash operation in Brazil, with estimate production capacity of 1.2 million tons of potash per year. The agreement is in line with Vale's growth strategy to become one of the world leaders in the fertilizing industry.

Sale of interest in CADAM

On April 26, 2012, Vale signed the sale agreement for its 61.5% interest in Cadam S.A (CADAM), for US\$ 30.1 million (equivalent to R\$ 58.0 million on the transaction date), to KaMin LLC (a North-American closed capital company). CADAM is a producer of kaolin operating with open pit mines in the state of Amapá, a processing plant and a private port, both in the state of Pará. The mine and the plant are connected by a 5.8 km pipeline. Vale will receive US\$ 30.1 million for the shareholding control of CADAM, to be paid in five years. Operation was concluded on May 7, 2012. The sale of CADAM is part of the Company's continuous efforts to optimize its asset portfolio. With the sale of Pará Pigmentos S.A. (PPSA), in 2010, the sale of CADAM consolidates the sale of the kaolin business. Vale's growth strategy to create sustainable value encompasses several options and active portfolio management is very important to optimize capital allocation and focus administration.

Sale of Coal Assets from Colombia

On May 25, 2012, with Vale International Holdings GmbH and Vale Internacional S.A., Vale signed an agreement to sell its thermal coal operations in Colombia to CPC S.A.S, a subsidiary of Colombian Natural Resource S.A.A (CNR), a private company, for US\$ 407 million in cash (equivalent to R\$ 843 million on the transaction date), and subject to regulatory approval. The sale was concluded on June 25, 2012.

The thermal coal operations in Colombia are an integrated mine-railway-port system that consists of: (a) 100% of the El Hatillo coal mine and the coal deposit in Cerro Largo, both of which are located in Cesar's department; (b) 100% of Sociedad Portuária Rio Córdoba (SPRC), a coal port operation on



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Colombia's Atlantic Coast; and (c) participation in 8.43% of the Ferrocarriles Del Norte de Colombia S.A. (FENOCO) railway, which has the concession and operated the railways that connect the coal mines to SPRC.

The sale of the thermal coal operation in Colombia is part of continued efforts to optimize the company portfolio of assets. Vale's strategy for sustainable growth and value creation encompasses multiple options, and management of its portfolio of assets is important to optimize the allocation of capital and focus the attention of the administration.

Sale of manganese ferroalloy assets in Europe

On July 10, 2012, with Vale Internacional S.A., Vale signed an agreement to sell its manganese ferroalloy operations in Europe to Glencore Internacional Plc. subsidiaries, a company listed in the London and Hong Kong stock markets, for US\$ 160 million (equivalent to R\$ 325 million) in cash. The manganese ferroalloy operations in Europe consist of: (a) 100% of Vale Manganese France SAS, located in Dunkirk, in France; and, (b) 100% of the Vale Manganese Norway AS, located in Mo I Rana, Norway. The sale was concluded on October 31, 2012, upon checking compliance with all conditions. The sale of the manganese ferroalloy operations in Europe is part of continued efforts to optimize the company portfolio of assets. Vale's strategy for sustainable growth and value creation encompasses multiple options, and management of its portfolio of assets is important to optimize the allocation of capital and focus the attention of the administration.

Sale of marine transport assets

On August 31, 2012, Vale Internacional signed an agreement to sell, for US\$ 600 million and posterior chartering, of 10 large ore carrier ships with Polaris Shipping Co. Ltd. (Polaris). These ships were acquired in 2009 / 2010 and converted from oil tankers to ore carriers, each with an approximate capacity of 300,000 DWT, so that Vale Internacional would have at its disposal a marine fleet dedicated to the transport of iron ore to its clients. The sold ships will be chartered by Vale through long term chartering contracts signed with Polaris. In addition to freeing capital, the transaction preserves Vale's ability to transport iron ore by sea having the ships at its disposal, but eliminating the risks involved in ownership and operation. This transaction is part of continued efforts to optimize the company portfolio of assets, improving capital allocation and reinforcing the balance sheet.

Sale of fertilizer assets

On December 18, 2012, Vale Fertilizantes S.A. signed with Petrobras an agreement to sell Araucária Nitrogenados S.A. (Araucária), a nitrogen production operation located in Araucária in the state of Paraná, for US\$ 234 million. The purchase price will be paid by Petrobras in quarterly payments, 100% adjusted by the Interbank Deposit Certificate (CDI), in amounts that are

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equivalent to the royalties owned by Vale Potássio do Nordeste S.A. relative to the potash assets leasing and mining rights at Taquari-Vassouras and the Carnalita project. Araucária has an annual production capacity of approximately 1.1 million tons of ammonia and urea. The divestment of assets like Araucária, which do not have synergy with the Company's portfolio, is consistent with efforts to improve the allocation of capital and revenue generation to complement the financing of investments considered a priority, with great potential for value generation. The Araucária sale also contributed to a reduction in investments to sustain existing operations in the amount of US\$ 50 million per year.

The operation was approved without restrictions by CADE on May 15, 2013.

Sale of participation in oil and gas concession

On December 21, 2012, Vale signed an agreement with Statoil Brasil Óleo e Gás Ltda (Statoil) to sell its 25% participation in the BM-ES-22A concession in the Espírito Santo Basin for the amount of US\$ 40 million (equivalent to approximately R\$ 90 million), in cash. Besides, the sale exempts Vale from investment liabilities in the amount of US\$ 60 million until the end of 2013. The completion of this transaction was on March 19, 2014. Vale's strategy for sustainable growth and value generation encompasses multiple options, and the active management of its portfolio is an important action to optimize the allocation of capital and to focus management efforts.

**2013**

Increase in interest on the Belvedere coal project

On January 31, 2013, Vale Belvedere Pty Ltd. signed agreements to conclude a purchase option exercised in June 2010, through which it acquired an additional 24.5% interest in the Belvedere coal project from a subsidiary of Aquila Resources Limited (Aquila). The purchase price of A\$ 150 million (equivalent to US\$ 156 million using the AUD/USD rate of 1.04), is equivalent to the market value determined by an independent evaluator retained by Vale and Aquila at the time. As result of this transaction, Vale Belvedere Pty Ltd. increased its interest in Belvedere to 100%. Additionally, Vale Belvedere Pty Ltd. agreed upon paying A\$ 20 million (equivalent to US\$ 21 million) to settle litigations and disputes related to Belvedere with Aquila.

As a whole, Vale paid US\$338 million for 100% of Belvedere. Belvedere is a future opportunity of growth and is comprised of an underground coal mine located in the South of Bowen Basin, close to the town of Moura, in the State of Queensland, Australia. The project was approved by Vale's Board of Directors. According to preliminary estimates, the Belvedere project has the potential to reach a production capacity of 7.0 million metric tons per year, mostly of metallurgical coal.



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Increased interest in hydroelectric plants of Capim Branco I & II

On March 14, with Cemig Capim Branco Energia S.A., upon exercising the preemptive right provided for in the incorporation agreement of Consórcio Capim Branco, Vale acquired for R\$ 223,030,470.52 a 12.47% interest of Suzano Papel e Celulose S.A. and Suzano Holding S.A. in the capital of hydroelectric plants Capim Branco I & II. Consequently, Vale holds 60.89% on Capim Branco I & II, capable of generating 1,524 gigawatts hour per year of power by the end of the concession in 2036. The acquisition of additional interest in hydroelectric plants Capim Branco I & II adds value to the extent that it provides an immediate reduction in the power cost for our operations, being a low risk investment and with return clearly higher than the capital cost for Vale.

Sale of interest in VLI

On September 18, Vale entered into agreements to sell 20% of the total capital of VLI to Mitsui & Co. Ltd. (Mitsui) for R\$ 1.509 billion and 15.9% of the capital of VLI for R\$ 1.2 billion to the Investment Fund of the Severance Fund – FGTS (FI-FGTS), which is managed by Caixa Econômica Federal. This transaction was concluded on April 14, 2014. Values arising out of the sale to FI-FGTS and R\$ 800 million of the sale funds to Mitsui will be comprised by a capital investment in VLI, who issued new shares for Mitsui and FI-FGTS. Values invested in VLI will be used to fund part of VLI investment plan. The remaining funds from this transaction, R\$ 709 million, was paid directly to Vale by Mitsui.

Additionally, on December 23, 2013, Vale entered into an agreement with a fund managed by Brookfield Asset Management (Brookfield) to sell 26.5% of its interest in the capital of VLI, for R\$ 2 billion. The conclusion of this transaction is subject to the approval by competent government authorities, including the Administrative Council of Economic Defense – CADE and ANTT – National Agency of Terrestrial Transportation. Upon conclusion of this transaction, Vale's interest in VLI will be reduced to 37.6%. Vale, Mitsui FI-FGTS, and Brookfield will jointly control VLI, under a shareholders' agreement.

Sale of all shares of Norsk Hydro

On November 14, Vale announced the sale of all its 22% interest in Norsk Hydro ASA (Hydro), held by its subsidiary Vale Austria Holdings GmbH, currently known as Vale International Holdings GmbH (Vale Austria), for NOK 25.00 per share, summing NOK 11.196 billion, equivalent to US\$ 1.822 billion (equivalent to R\$ 4.243 billion). Vale Austria has held such shares since 2011, when it restructured the portfolio of aluminum assets. Upon conclusion of this transaction, Vale Austria no longer holds interest in Hydro.

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Sale of interest in Tres Valles

On December 12, 2013, Vale concluded the sale of Sociedad Contractual Minera Tres Valles (Tres Valles) for US\$ 25 million (equivalent to R\$ 54 million) to Inversiones Porto San Giorgio S.A (ISG), company controlled by the Chilean group Vecchiola S.A.

Tres Valles is a cathode copper production company in the area of Coquimbo in Chile. The transaction included the entire 90% interest held by Vale in the capital of Tres Valles and some specific mining rights held by Vale in the area of Coquimbo. Tres Valles owns underground and open-air mines and has a production capacity of up to 18,500 metric tons per year of cathode copper.

Sale of power generation assets

On December 19, 2013, Vale entered into agreements with CEMIG Geração e Transmissão S.A. (CEMIG GT) to sell 49% of its 9% interest in Norte Energia S.A. (Norte Energia), company responsible for building, operating and exploring the hydroelectric plant of Belo Monte for approximately R\$ 200 million, and creation of a joint venture comprised of power generation assets.

For this purpose, two different enterprises were created to cover power generation projects and assets. In the first one, Aliança Norte Energia Participações S.A., Vale will hold 51% of the capital, arising out of the investment of its current 9% interest in the total capital of Norte Energia and later sale of 49% of the capital of such enterprise to CEMIG GT. Thus, Vale's interest in the capital of Norte Energia will be reduced to 4.59% and Vale will proportionally reduce the provision of guarantees associated to the funding structure of project Belo Monte.

The second enterprise, Aliança Geração de Energia S.A., will be incorporated by Vale and CEMIG GT, respectively holding 55% and 45% of the total capital, upon investment of their interest on the following power generation assets: Porto Estrela, Igarapava, Funil, Capim Branco I & II, Aimorés, and Candonga. Such plants have attributable installed capacity of 1,158 MW and insured power of an average of 652 MW. The provision of power for Vale operations is ensured under a long term agreement with Aliança Geração de Energia S.A., in order to maintain the same amount of power currently provided to our operations.

The transaction is subject to regulatory approval and other usual terms applicable to similar transactions. Final values of these operations are subject to specific adjustments, under the terms and conditions set forth in investment agreements.

Sale of purified phosphoric acid assets

On December 20, 2013, Vale signed an agreement with Israel Chemicals Ltd. (ICL) to sell its 44.25% interest in Fosbrasil, company producer of purified phosphoric acid, located in Cajati, State of São Paulo, for US\$ 52 million. The



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effectiveness of such transaction is subject to compliance with current prior terms and approvals, including approval by the Administrative Council of Economic Defense (CADE).

Sale of Log-in shares

On December 26, Vale promoted an auction, under the terms in CVM Instruction no. 168, dated December 23, 1991, as amended, to sell 28,737,367 common shares issued by Log-in Logística Intermodal S.A. (Log-in), company listed in BM&FBOVESPA (ticker symbol: LOGN3), corresponding to all common shares issued by Log-in then held by Vale, for R\$ 8.11 per share, totaling R\$ 233 million. This transaction was concluded on January 2, 2014.

Acquisition of Tecnoled Desenvolvimento Tecnológico S.A. (Tecnoled)

On February 27, 2014, Vale acquired the interest held by BNDESPAR and Logos Tecnoled, representing respectively 31.8% and 19.0% of the capital of Tecnoled. The transaction value was R\$38.1 million, to be adjusted between July 1, 2013 and the date of payment), with possible additional payment of up to R\$ 138.9 million to be done between 2019 and 2029, subject to the successful deployment of the developed technology. As result of this transaction, Vale increased its interest to 100% in Tecnoled. The technology used by Tecnoled may help extend the use life of Vale mines and reduce the environmental impact, as it allows the production of pig iron with different concentration grades and quality, even ultrafine ore, which currently are deposited in rejection basins.

**6.6 Information on bankruptcy filing based on relevant values, or judicial or extrajudicial recovery**

Not applicable. There are no bankruptcy filings based on relevant values, or judicial or extrajudicial recovery of the Company.

**6.7 Other relevant information**

Review of the iron ore project Simandou, in the Republic of Guinea.

On April 30, 2010, Vale acquired from BSG Resources Ltd. ( BSGR ) a 51% stake in BSG Resources (Guinea) Ltd. (currently named VBG - Vale BSGR Limited ( VBG ), which at the time held concessions for iron ore in Guinea, Simandou South (Zogota) and exploration permits for Simandou North (Blocks 1 & 2), in the Republic of Guinea. In April, 2014, the Republic of Guinea revoked the mining rights for the Simandou and Zogota concession areas held by VBG. For more information, see item 7.5 (a) in this Reference Form.



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**7.1 Description of activities engaged by the issuer and its subsidiaries**

Vale is one of the largest mining companies in the world and the largest in the Americas by market value. The Company is the largest iron ore producer and second largest nickel producer in the world. Vale also produces manganese ore, ferroalloys, copper, thermal and metallurgical coal, phosphates, potash, cobalt, and platinum group metals (PGMs), gold, silver, cobalt, potash, phosphates, and other fertilizers. To sustain its growth strategy, Vale is actively engaged in mineral exploration in 11 countries. The Company operates large logistics systems in Brazil and in other areas of the world integrated with its mining operations, including railroads, maritime terminals and ports. In addition, the Company has a portfolio of maritime freight, floating transfer stations and a distribution center to support distribution of iron ore worldwide. Vale also has significant investments in the sectors of energy and steel, directly or through subsidiaries and joint ventures.

**7.2 Information on operational segments**

**a. Products and services marketed in each operating segment**

*(i) Bulk Materials* Includes extraction of iron ore and production of pellets, as well as the North, Southern and Southeastern transportation systems, including railroads, ports, maritime terminals, and ships linked to these operations. Manganese ore and the production of ferroalloys and coal are also included in this segment.

(ii) *Base metals* Includes the production of non-ferrous minerals, including production of nickel (co-products and by-products), copper and investments in aluminum partnerships.

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(iii) *Fertilizers* Includes three important nutrient groups: potassium, phosphates and nitrogen. This is a business segment, reported as of 2010, that is being formed through acquisitions and organic growth.

(iv) *Logistics* Includes the system of cargo transportation for third parties, divided into ports, rail and maritime transport and shipping services.

(v) *Other investments* Includes investments in joint ventures and affiliates in other businesses.

The information presented to upper management regarding performance of each segment are usually originated from accounting records maintained according to generally accepted accounting principles in Brazil, with some minimum relocations between segments.

**b. Revenue from the segment and its participation in the Company's net revenues**

In R\$ thousands	Fiscal year ending on December 31					
	2013		2012		2011	
Segment	Net Revenue	% of total	Net Revenue	% of total	Net Revenue	% of total
Bulk Materials	77,856,142	76	69,369,114	76	78,129,764	77
Base Metals	15,745,886	16	13,933,389	15	16,069,590	16
Fertilizers	6,037,774	6	7,008,169	8	5,551,489	6
Others	1,849,945	77	958,810	1	804,837	1
<b>Total Revenue</b>	<b>101,489,747</b>	<b>100</b>	<b>91,269,482</b>	<b>100</b>	<b>100,555,680</b>	<b>100</b>

**c. Profit or loss resulting from the segment and its participation in the Company's net income**

In R\$ thousands	Fiscal year ending on December 31					
	2013		In R\$ thousands		2013	
Segment	Profit/Loss	% of total	Profit/Loss	% of total	Profit/Loss	% of total
Bulk Materials	7,060,036	n/a	19,914,832	201	36,566,000	97
Base Metals	(781,142)	679	(9,009,025)	-91	3,008,738	8
Fertilizers	(6,088,378)	n/a	2,346,358	24	42,000	
Others	(71,823)	62	(3,226,950)	-33	(1,652,013)	-4
Discontinued operations - General load	(3,602)	3	(133,519)	-1	(139,000)	-1
<b>Net Profit of the Period</b>	<b>(115,091)</b>		<b>9,891,696</b>		<b>37,825,725</b>	

**7.3 Information on products and services related to the operating segments**



- a. Characteristics of the production process
- b. Characteristics of the distribution process
- c. Characteristics of the markets, in particular:
  - i. competition conditions in the markets

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- ii. participation in each market
- d. Possible seasonality

**1. Bulk materials**

The Company’s bulk materials business includes iron ore prospecting, pellet production, coal production, manganese prospecting, and ferroalloy production. Each activity is described below.

1.1 Iron Ore and pellets

1.1.1 *Iron ore operations*

Vale runs the majority of its iron ore operations in Brazil mainly through Vale S.A. and our wholly-owned subsidiary Mineração Corumbaiense Reunida S.A. (MCR) and our subsidiary MBR. Our mines, which are all open-pit and our operations are concentrated essentially in three systems: the Southeastern System, the Southern System and the Northern System, each with its own transportation capacity. Vale also has mining operations in the Central western System through the joint venture Samarco Mineração S.A. (Samarco), a joint venture with BHP Billiton plc, where Vale holds 50% interest. All iron ore operations in Brazil are held under concession by the federal government, which are granted for undetermined period.

Vale Northern System	Carajás, Pará	Open-pit mines and ore processing plants. Divided into North Range, South Range, and East Range. Since 1985, we have been conducting mining activities in the Serra Norte, which is divided into three main mining bodies (N4W, N4E and	High grade hematite (66.7% on average).	One-pit mining operations. The beneficiation process consists simply of sizing operations, including screening, hydrocycloning, crushing and filtration. The beneficiation process produces sinter feed, pellet feed, and granulated ore.	Power provided by the national power network, acquired from regional power companies.	The iron ore is transported by the Carajás Railroad ( <u>EFC</u> ) to the Ponta da Madeira maritime terminal in the state of Maranhão.
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N5). A new processing plant has started in the last quarter 2013.

<p>Southeastern System</p>	<p>Iron Quadrangle region of the state of Minas Gerais</p>	<p>Three locations: Itabira (two mines, with three important processing plants), Minas Centrais (three mines, with three important processing plants and one secondary plant) and Mariana (three mines and four processing plants).</p>	<p>The ore reserves have high ratios of itabirite ore relative to hematite ore. Itabirite ore has iron grade between 35% and 60% and requires concentration to achieve shipping grade.</p>	<p>Open-pit mining operations. We generally process the run-of-mine ( ROM ) by means of standard crushing, followed by classification and concentration steps, producing sinter feed, lump ore and pellet feed in the beneficiation plants located at the mining sites.</p>	<p>Power provided by the national power network, acquired from regional utility companies or produced directly by Vale.</p>	<p>The Vitória a Minas Railroad ( <u>EFVM</u> ) connects these mines to the Tubarão port.</p>
<p>Southern</p>	<p>Iron</p>	<p>Three major</p>	<p>The ore reserves have</p>	<p>Provided by the</p>	<p>Power</p>	<p>Our affiliate MRS</p>

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<b>Firm / Mining System</b>	<b>Location</b>	<b>Description / History</b>	<b>Mining</b>	<b>Operations</b>	<b>Power source</b>	<b>Access / Transportation</b>
System	Quadrangle region of the state of Minas Gerais	locations: Minas Itabirito (four mines, with three major beneficiation plants and three secondary beneficiation plants); Vargem Grande (three mines and two major beneficiation plants); and Paraopeba (four mines and three beneficiation plants).	high ratios of itabirite ore relative to hematite ore. Itabirite ore has iron grade between 35% and 60% and requires concentration to achieve shipping grade.	national power grid. Acquired from regional power companies or directly produced by Vale.	provided by the national power network, acquired from regional power companies or produced directly by Vale.	transports our core products from the mines to Guaíba Island and Itaguaí maritime terminals in the state of Rio de Janeiro.
Central western System (1)	State of Mato Grosso do Sul	Comprised of Urucum and Corumbá mines. Open-pit mining operations.	The iron ore reserves in Urucum and Corumbá contain a high level of hematite ore that mainly generates granulated ore.	Open-pit mining operations. The mine operates through standard crushing, followed by classification, producing granulated and fine.	Power provided by the national power network, acquired from regional power companies.	The iron ore products from the Urucum and Corumbá mines are delivered to clients through Vale barges sailing on Paraguay and Paraná rivers.
Samarco	Iron Quadrangle region of the state of Minas Gerais	Integrated system comprised of two mines, two processing plants, two pipelines, three pellet plants and a port.	Itabirite	Open-pit mining operations. Both processing plants located in the facility process ROM by means of standard crushing, classification and concentration steps, producing sinter feed, lump ore and pellet feed.	Power provided by the national power network, acquired from regional power companies.	Samarco mines serve Samarco processing plants by two pipelines of approximately 400 km. These pipelines transport the iron ore from the processing plants to the pelleting plants and from the pelleting plants to the port, in the State of Espírito Santo.

(1) Part of our operations in the Central western System is conducted by MCR.

## 1.1.2. Iron Ore Production

The following table sets forth information about our iron ore production.

Mine/Plant	Type	Production for fiscal year ended on December 31			Recovery Process (%)
		2011 (million metric tons)	2012	2013	
<b>Southeastern System</b>					
Itabira					
Cauê	Open pit	18.6	17.8	15.9	62,3
Conceição	Open pit	21.4	19.9	18.1	68,8
Minas Centrais					
Água Limpa(1)	Open pit	5.0	4.6	4.4	47,5
Gongo Soco (3)	Open pit	5.3	4.4	4.7	100,0
Brucutu	Open pit	30.9	31.7	28.7	73,7
Mariana					
Alegria	Open pit	14.7	14.7	15.8	82,7
Fábrica Nova	Open pit	13.2	13.0	12.5	67,3
Fazendã	Open pit	11.1	9.5	9.3	100,0
<b>Total Southeastern System</b>		<b>120,2</b>	<b>115.6</b>	<b>109.5</b>	
<b>Southern System</b>					
Minas Itabirito					
Segredo/João Pereira	Open pit	11.8	12.2	12.0	75,6
Sapécado/Galinheiro	Open pit	18.6	19.6	19.0	69,2

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Mine/Plant	Type	Production for fiscal year ended on			Recovery Process (%)
		2011	December 31 2012 (million metric tons)	2013	
<b>Vargem Grande</b>					
Tamanduá(8)	Open pit	8.8	9.7	6.7	81,3
Capitão do Mato	Open pit	7.3	7.3	9.9	81,3
Abóboras	Open pit	5.3	5.6	5.4	100,0
<b>Paraopeba</b>					
Jangada	Open pit	5.1	6.1	6.9	94,2
Córrego do Feijão	Open pit	6.8	6.8	5.8	94,2
Capão Xavier(9)	Open pit	8.4	9.6	9.2	87,1
Mar Azul (3)	Open pit	4.1	3.3	4.2	100,0
<b>Total Southern System</b>		<b>76,3</b>	<b>80,3</b>	<b>79,0</b>	
<b>Centralwestern System</b>					
Corumbá	Open pit	4.1	4.6	4.5	79,8
Urucum	Open pit	1.5	1.8	2.0	69,3
<b>Total Centralwestern System</b>		<b>5,6</b>	<b>6,4</b>	<b>6,5</b>	
<b>Northern System</b>					
<i>Serra Norte</i>					
N4W	Open pit	38.9	39.3	31.3	93,5
N4E	Open pit	20.1	18.7	19.9	93,5
N5	Open pit	50.8	48.8	53.6	93,5
<b>Total Northern System</b>		<b>109,8</b>	<b>106,8</b>	<b>104,9</b>	
Vale		311,8	309,0	299,8	
Samarco (2)		10,8	10,9	10,9	
<b>Total</b>		<b>322,6</b>	<b>320,0</b>	<b>310,7</b>	

(1) *The mine and the Água Limpa plant are owned by Baovale, in which we own 100% of the voting shares and 50% of the total shares. Production figures for Água Limpa were not adjusted to reflect our ownership interest*

(2) *Production figures for Samarco, in which we have a 50% interest, have been adjusted to reflect our ownership interest.*

(3) *Production numbers for these mines or plants include minor operations elsewhere with low production levels and reserves.*

### 1.1.3. Iron Ore Pellet Operations

Directly and through joint ventures, Vale produces iron ore pellets in Brazil, in Oman and in China, as shown in the table below. Our estimated total nominal capacity is 57.2 million tons per year ( Mtpa ), including the full capacity of our Oman pelleting plants, but without our joint ventures Samarco, Zhuhai YPM Pellet Co., Ltd. ( Zhuhai YPM) and Anyang Yu Vale Yongtong Pellet Co., Ltd. ( Anyang ). Of our total 2013 pellet production, including the production from our joint ventures, 61.4% corresponded to blast furnace pellets, and 38.6% corresponded to direct reduction pellets, which are used in steel mills that employ the direct reduction process rather than blast furnace technology. We meet all the iron ore needs of our pelletizing plants and part of the iron ore needs for Samarco and Zhuhai YPM. In 2013, we sold 10.2 million metric tons to Samarco and 1.2 million metric tons to Zhuhai YPM.

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<b>Firm / Plant</b>	<b>Description / History</b>	<b>Nominal capacity (Mtpa)</b>	<b>Power source</b>	<b>Other information</b>	<b>Our participation (%)</b>	<b>Partners</b>
<u>Brazil:</u> Vale Tubarão (State of Espírito Santo)	Our two wholly-owned pelleting units (Tubarão I and II) and leasing of five plants. The iron ore is received from our mines in the Southeastern	29.2	Power provided by the national power network, acquired from regional power	Pelleting operations held in Tubarão I and II are suspended since November 13, 2012, due to changes in the demand of the	100.0	

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Firm / Plant	Description / History	Nominal capacity (Mtpa)	Power source	Other information	Our participation (%)	Partners
	System and distribution is done by our logistics infrastructure.		companies or produced directly by Vale.	steel industry for raw material (reduction in pellet consumption in favor of <i>sinter feed</i> )		
Fábrica (State of Minas Gerais)	Part of the Southern System. Receives iron ore from the mine Fábrica. Production is transported through MRS and EFVM.	4.5	Power provided by the national power network, acquired from regional utility companies or produced directly by Vale...		100.0	
Vargem Grande (State of Minas Gerais)	Part of the Southern System. Receives iron ore from the Pico and Vargem Grande mines, and production is transported through MRS.	7.0	Power provided by the national power network, acquired from regional power companies or produced directly by Vale..		100.0	
São Luís (State of Maranhão)	Part of the Northern System. Receives iron ore from Carajás and production is delivered to customers through our Ponta da Madeira maritime terminal.	7.5	Power provided by the national power network, acquired from regional power companies or produced directly by Vale..	On October 8, 2012, we suspended operations at the pelleting plant in São Luís, for reasons similar to the ones that led to the suspension of operations at the Tubarão I and II plants.	100.0	
Samarco	Three pelleting units with nominal capacity of 22.3 Mtpa. Pelleting units are located at Ponta Ubu, in Anchieta, Espírito Santo.	22.3	Power provided by the national power network, acquired from regional power companies or produced directly by Samarco.	In 2014, we started operation of a fourth pelleting plant with capacity of 8.3 Mtpa, to increase Samarco's pelleting nominal capacity to 30.5 Mtpa.	50.0	BHP Billiton plc
<u>Oman:</u> Vale Oman Pelletizing Company LLC ( <u>VOPC</u> )	Vale Industry Complex. Two pelleting plants (total capacity of 9.0 Mtpa for direct reduction pellets). Pelleting	9.0	Power provided by the national power network.	In the last quarter of the year, the unit reached monthly nominal capacity. Total volume produced in 2013	70.0	Oman Oil Company S.A.O.C.



plants are integrated  
to our distribution  
center with nominal  
capacity of 40.0

was 8.28 million tons  
per year.

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Firm / Plant	Description / History	Nominal capacity (Mtpa)	Power source	Other information	Our participation (%)	Partners
	Mtpa.					
<b>China:</b>						
Zhuhai YPM	Part of the Yueyufeng Steel Complex. Port facilities, we use to receive <i>pellet feed</i> from our mines in Brazil. Main customer is Zhuhai Yueyufeng Iron & Steel ( <u>YYF</u> ), also located in the Yueyufeng Steel Complex.	1.2	Power provided by the national power network.		25.0	Zhuhai Yueyufeng Iron and Steel Co. Ltd., Halswe Enterprises Limited
Anyang	Pelleting operation in China with production capacity of 1.2 Mtpa and which production started in March 2011.	1.2	Power provided by the national power network.		25.0	Anyang Iron & Steel Co. Ltd.

*1.1.4 Pellet Production*

The table below provides information regarding our main pellet production.

Firm	Fiscal year ending on December 31		
	2011	2012	2013
	(million metric tons)		
Vale(1)	39.0	43.3	39.0
Hispanobras(2)	2.1	1.1	
Samarco (3)	10.7	10.7	10.6
Zhuhai YPM (3)	0.3	0.2	0.2
Anyang (3)	0.2	0.2	0.2
<b>Total Production</b>	<b>52.3</b>	<b>55.6</b>	<b>50.0</b>

(1) The figure includes actual production, including the full production from our pellet plants in Oman and four pelleting plants we leased in 2008. We signed a 10-year operating lease contract for Itabrasco's pellet plant in October 2008. We signed a five-year operating lease contract for Kobrasco's pellet plant in June 2008, renewed for another five years in 2013. We signed a 30-year operating lease contract for Nibrasco's two pellet plants in May 2008.

(2) On July 1, 2012, we signed a three-year operating lease contract for Hispanobras' pelleting plant, and started consolidating production.

(3) Production figures for Samarco, Zhuhai YPM, and Anyang were adjusted to reflect our ownership interest.

1.1.5. *Clients, sales, and marketing*

We supply all of our iron ore and pellets (including our share in joint-venture pellet production) to the steel industry. Prevailing and expected levels of demand for steel products affect demand for our iron ore and pellets. Demand for steel products is influenced by several factors, such as global industrial production, civil construction and infrastructure investment.

In 2013, China accounted for 47.7% of our iron ore and pellet shipments, and Asia, as a whole, accounted for 64.9%, while Europe, in turn, accounted for 18.0%, followed by Brazil with 8%. Our ten largest customers collectively purchased 143.6 million metric tons of iron ore and pellets from us, representing 46.7% of our sales volumes of iron ore and pellets in 2013 and

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42.4% of our total iron ore and pellet revenues. In 2013, no individual customer accounted for more than 10.0% of our iron ore and pellet shipments.

In 2013, the Asian market (mainly Japan, South Korea, and Taiwan) and the European market were the primary markets for our blast furnace pellets, while the Middle East, North America and North Africa were the primary markets for our direct reduction pellets.

We strongly emphasize customer service in order to improve our competitiveness. We work with our customers to understand their main objectives and to provide them with iron ore solutions to meet specific customer needs. Using our expertise in mining, agglomeration and iron-making processes, we search for technical solutions that will balance the best use of our world-class mining assets and the satisfaction of our customers. We believe that our ability to provide customers with a total iron ore solution and the quality of our products are very important advantages helping us to improve our competitiveness in relation to competitors who may be more conveniently located geographically. In addition to offering technical assistance to our customers, we operate sales support offices in Tokyo (Japan), Seoul (South Korea), Singapore, Dubai (UAE), and Shanghai (China) which support the sales made by Vale International, wholly owned subsidiary of Vale International Holdings GmbH (former Vale Austria Holdings GmbH), located in St. Prex, Switzerland. These offices also allow us to stay in closer contact with our customers, monitor their requirements and our contract performance, and ensure that our customers receive timely deliveries.

We sell iron ore and pellets under different agreements, including long term agreement with customers and spot sales by means of auctions and business platforms. We adopt different price mechanisms for our sales, usually related to the Chinese spot market, including basically the following systems: (i) daily spot pricing, (ii) spot pricing after delivery, which is a temporary pricing and an adjustment invoice after delivery; (iii) current quarterly and monthly averages; and (iv) three month average with one-month delay.

*1.1.6. Competition*

The global iron ore and iron ore pellet markets are highly competitive. The main factors affecting competition are price, quality and range of products offered, reliability, operating costs and shipping costs.

Our biggest competitors in the Asian market are located in Australia and include subsidiaries and affiliates of BHP Billiton PLC ( BHP Billiton ), Rio Tinto Ltd. ( Rio Tinto ), and Fortescue Metals Group Ltd ( FMG ). Although the transportation costs of delivering iron ore from Australia to Asian customers are generally lower than ours as a result of geographical proximity, we are competitive in the Asian market for two reasons. First, steel companies generally seek to obtain the types (or blends) of iron ore and iron ore pellets that allow them to produce the intended final product in the most economical

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and efficient manner. Our iron ore has low impurity levels and other properties that generally lead to lower processing costs. For example, in addition to its high grade, the alumina grade of our iron ore is very low compared to Australian ores, reducing consumption of coke and increasing productivity in blast furnaces, which is particularly important during periods of high demand. When demand is very high, our quality differential usually is highlighted to customers. Second, steel companies often develop sales relationships based on a reliable supply of a specific mix of iron ore and iron ore pellets.

In terms of reliability, our ownership and operation of logistics facilities in the Northern and Southeastern Systems help us ensure that our products are delivered on time and at a relatively low cost. In addition, we continue developing a low-cost freight portfolio, aimed at enhancing our ability to offer our products in the Asian market at competitive prices and to increase our market share. To support this strategy, we built a distribution center in Oman and two floating transfer stations ( STFs ) in the Philippines and we are investing in another distribution center in Malaysia. We entered into medium and long-term freight contracts, and we own vessels known as Valemax, which reduce power consumption and green-house gas emissions, carrying a larger amount of cargo in a single trip, offering lower freight rates. These investments increase the speed and flexibility for customization and reduce the market time required for our products.

Our principal competitors in Europe are: Kumba Iron Ore Limited; Luossavaara Kiirunavaara AB ( LKAB ); Société Nationale Industrielle et Minière ( SNIM ); and Iron Ore Company of Canada ( IOC ), subsidiary of Rio Tinto. We are competitive in the European market for the same reasons we are competitive in Asia, but also due to the proximity of our port facilities to European customers.

The Brazilian iron market is also competitive. There are several smaller iron ore producers and new companies that are developing projects, such as Anglo Ferrous Brazil, MMX, Ferrous Resources and Bahia

Mineração. Some steel plants, as Gerdau S.A. ( Gerdau ), Companhia Siderurgica Nacional ( CSN ), V&M do Brasil S.A. ( Mannesmann ), Usiminas, and ArcelorMittal, also have iron ore operations. Although price is important, quality and reliability are important factors as well. We believe that our integrated transportation systems, our high quality ore and technical support make us a strong competitor in the Brazilian market.

Regarding pelleting, our main competitors are LKAB, Cliffs Natural Resources Inc., ArcelorMittal Canada (formerly Quebec Cartier Mining Co.), IOC, and Gulf Industrial Investment Co.

## 1.2 Coal

### *1.2.1 Operations*

We produce metallurgic and thermal coal by our subsidiaries Vale Moçambique,



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which operates the Moatize mine, and Vale Australia, which operates coal assets in Australia by wholly-owned subsidiaries and joint ventures. We also hold minority interest in two Chinese companies, Henan Longyu Energy Resources Co., Ltd. ( Longyu ) and Shandong Yankuang International Coking Company Limited ( Yankuang ), as presented in the table below.

Company / Mining complex	Location	Description / History	Mining / Operations	Mining license	Power source	Access / Transportation
<u>Mozambique</u>						
Vale Moçambique Moatize	Tete, Mozambique	Open pit mine developed directly by Vale. Operations started in August 2011 and should achieve nominal production capacity of 11 Mtpa, comprised mainly of metallurgic coal. Vale holds 95.0% interest and the remaining shares are held by Empresa Moçambicana de Exploração Mineira, S.A.	Produces metallurgic and thermal coal. The main brand product of Moatize is Chipanga premium hard coking coal, but there is operational flexibility for other products. The ideal product portfolio will come as result of market surveys. Coal from mines is processed at a coal handling and preparation plant ( <u>CHPP</u> ) with capacity of 4,000 metric tons per hour.	Mining concession ends in 2032, renewable after this date.	Power provided by local utility companies. Supply of local back-up.	Coal is transported from the mine to the Beira Port through railroad Linha do Sena.
<u>Australia</u>						
Integra Coal	Hunter Valley, New South Wales	Open pit and underground mine acquired with AMCI Investments Pty Ltd ( <u>AMCI</u> ) in 2007, located 10 km to the Northeast of Singleton, in Hunter Valley, in New South Wales, Australia. Vale holds 61.2% interest and the remaining shares are held by Nippon Steel ( <u>NSC</u> ), JFE	Produces metallurgic and thermal coal. Operations include a coal underground mine that produces through the <i>longwall</i> methods and an open pit mine. The coal is processed in a coal handling and preparation plant ( <u>CHPP</u> ) with capacity of 1,200	Mining licenses expire in 2023, 2026, 2030, and 2032.	Power provided by the national power network, acquired from regional utility companies.	Production is carried in trains carried for 83 km to the Newcastle Port, New South Wales, Australia.

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		Group ( <u>JFE</u> ), Posco, Toyota Tsusho Australia, Chubu Electric Power Co.	metric tons an hour.			
Carborough Downs	Bowen Basin, Queensland	Acquired with AMCI in 2007, mining concessions in Carborough Downs include Rangal Coal Measures, from Bowen Basin, with the Leichardt and Vermont mines. Both mines offer cock and may be improved to produce metallurgic coal and pulverized injection coal ( <u>ICP</u> ). Vale holds 85.0% interest and the remaining shares are held by JFE, Posco and Tata Steel.	Metallurgic coal. The Leichardt mine is our main development goal and comprises 100% of our reserve and the basis of current resources. The Carborough Downs coal is processed at Carborough Downs CHPP, with processing capacity of 1,000 metric tons an hour, operating seven days a week.	Mining licenses expire in 2035 and 2039.	Power provided by the national power network, acquired from regional utility companies.	Product is carried in trains at the cargo railroad and carried for 163 km to the Dalrymple Bay Coal Terminal, in Queensland, Australia.



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Company / Mining complex	Location	Description / History	Mining / Operations	Mining license	Power source	Access / Transportation
Isaac Plains	Bowen Basin, Queensland	The Isaac Plains open pit mine, acquired with AMCI in 2007, is located close to Carborough Downs, in the center of Queensland. The mine is managed by Isaac Plains Coal Management, on behalf of the parties in the <i>joint venture</i> . Vale holds 50.0% of interest and the remaining shares are held by a Sumitomo subsidiary.	Metallurgic and thermal coal. Coal is classified as medium-volatile bitumen coal, with low sulfur content. Coal is processed at Isaac Plains CHPP, with capacity of 500 metric tons per hour.	Mining licenses expire in 2025.	Power provided by the national power network, acquired from regional utility companies.	Carried for 172 kilometers to the Dalrymple Bay Coal Terminal.
<u>China</u>						
Longyu	Henan Province, China	Longyu has two coal mines in operation, which are located 10 km and 5 km from the town of Yongcheng, in the Henan Province. Vale holds 25.0% and the remaining shares are held by Yongmei Group Co., Ltd. (formerly known as Yongcheng Coal & Electricity (Group) Co. Ltd.), Shanghai Baosteel International Economic & Trading Co., Ltd. and other minor shareholders. Vale acquired an interest in Longyu by acquiring shares recently issued.	Metallurgic and thermal coal and other related products.	Mining concessions end in 2034.	Power provided by the national power network, acquired from regional utility companies.	Products are carried by truck or train directly to customers in China or carried by truck or train to the Lianyungang port
Yankuang	Shandong Province, China	Metallurgic coking plant located 10 km from the town of Yanzhou, Shandong Province. Vale holds 25.0% and the remaining shares are held by Yankuang Group Co. and Itochu Corporation. The plant was comprised by three shareholders.	Metallurgic coking, methanol, tar oil and benzene. Yankuang has production capacity of 1.7 Mtpa of coking and 200,000 tpa of methanol.		Power provided by the national power network, acquired from regional utility companies.	Most of the coking products are transported by train, while other products are carried by truck directly to our customers in China or by train to the Rizhao port.

1.2.2 Production

The table below presents information on our marketing coal production.

Operation	Mine type	Production during fiscal year ending December 31		
		2011	2012 (thousand metric tons)	2013
<b>Metallurgic coal:</b>				
<i>Vale Australia</i>				
Integra Coal(1)	Underground and open pit	467	962	1.410
Isaac Plains(2)	Open pit	635	709	656
Carborough Downs(3)	Underground	1,390	911	2.447
Broadlea (4)	Open pit	0	0	0
<i>Vale Moçambique</i>				
Moatize(5)	Open pit	275	2,501	2.373
<b>Total metallurgic coal</b>		<b>2.766</b>	<b>5,083</b>	<b>6,885</b>
<b>Thermal coal:</b>				
<i>Vale Colombia</i>				
El Hatillo(6)	Open pit	3,565		
<i>Vale Australia</i>				
Integra Coal(1)	Open pit	325	351	87
Isaac Plains(2)	Open pit	274	381	347
Broadlea(4)	Open pit	0	0	0
<i>Vale Moçambique</i>				
Moatize(5)	Open pit	342	1,267	1.444
<b>Total thermal coal</b>		<b>4.506</b>	<b>1,999</b>	<b>1,878</b>

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- (1) *These figures correspond to our participation of 61.2% in Integra Coal, a joint venture constituted as a partnership.*
- (2) *These figures correspond to our participation of 50.0% in Isaac Plains, a joint venture constituted as a partnership.*
- (3) *These figures correspond to our participation of 85.0% in Carborough Downs, a joint venture not constituted as a partnership.*
- (4) *Broadlea Coal has been under repair and maintenance since December 2009*
- (5) *Moatize started production in August 2011.*
- (6) *We sold the El Hatillo mine in the second half of 2012.*

*1.2.3 Clients and sales*

Coal sales at our operations in Australia are basically geared towards the Eastern Asian market. The coal sales from our Moatize operations, in Mozambique, aim global steel markets, including Asia, India, Africa, Europe and Americas. Our Chinese coal joint ventures directed their sales to the Chinese market.

*1.2.4 Competition*

The global coal industry, basically made up by the hard coal (metallurgical and thermal) and brown / lignite coal markets, is highly competitive.

The growing demand for steel, particularly in Asia, continues to promote a strong demand for metallurgical coal. Significant port and railroad limitations in some of the countries where our main providers are located may lead to a limited availability of additional metallurgical coal.

The increased steel demand, especially in Asia, /supports the Strong demand for thermal and metallurgic coal. If there is a strong offer at low prices for metallurgic coal in the new few years, investments in new greenfield projects may be reduced, which may cause unbalance in the offer in the long run. Additionally, port and railroad restrictions in certain supply areas may restrict production of metallurgic coal if there are no significant investments.

Competition in the coal industry is based mostly in production cost savings, coal quality, and transportation cost. Our main strong points are the geographical location of the current and future location of providers and production costs with regard to several other producers.

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The main participants in the transoceanic coal market are subsidiaries and affiliates and joint ventures BHP Billiton, Glencore Xstrata, Anglo American, Rio Tinto, Teck Cominco, Peabody, Walter Energy, and Shenhua Group, and others.

Table of Contents1.3 Manganese ore and ferroalloys*1.3.1 Manganese ore production and operations*

We conduct our manganese operations in Brazil through our wholly-owned subsidiaries Vale Manganês S.A. (Vale Manganês), Vale Mina do Azul S.A. and MCR. The Company's mines produce three types of manganese products:

- metallurgical ore used primarily in the production of ferroalloys;
- natural manganese dioxide, suitable for the manufacturing of electrolytic batteries; and
- chemical ore used in various sectors for the production of fertilizers, pesticides and animal feed, and is also used as pigment in the ceramics industry.

<b>Mining complex</b>	<b>Company</b>	<b>Location</b>	<b>Description / History</b>	<b>Mining</b>	<b>Operations</b>	<b>Power source</b>	<b>Access / Transportation</b>
Azul	Vale Mina do Azul S.A.	Pará	Open pit mining operations and local processing plants.	High content ore (minimum manganese content of 40%)	Crushing, followed by classification, producing granulated and fine.	Power provided by the national power network, acquired from regional utility companies.	Manganese ore is carried in trucks and by EFC to Ponta da Madeira maritime terminal.
Morro da Mina	Vale Manganês	Minas Gerais	Open pit mining operations and a large processing plant.	Low content ore (24% of manganese).	Crushing, followed by average/screening classification, producing granulated and fine for ferroalloy plants in Barbacena and Ouro Preto.	Power provided by the national power network, acquired from regional utility companies.	Manganese ore is carried in trucks to the ferroalloy plants in Barbacena and Ouro Preto.
Urucum	Urucum	Mato Grosso do Sul	Underground mining operations and local processing plants.	High content ore (minimum manganese content of 40%)	Crushing, followed by classification, producing granulated and fine.	Power provided by the national power network, acquired from regional utility companies.	The manganese ore is carried to the Rosario port (Argentina) in barges through the Paraguai and Paraná rivers.

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The table below presents information on our manganese production.

Mine	Type	Production during fiscal year ending December 31			Process Recovery in 2013 (%)
		2011 (million metric tons)	2012	2013	
Azul	Open pit	2,1,	1,9,	1,9,	57,8
Morro da Mina	Open pit	0,1,	0,2,	0,1,	65,6
Urucum	Underground	0,3,	0,3,	0,4,	81,9
<b>Total</b>		<b>2,5</b>	<b>2,4,</b>	<b>2,4,</b>	

Table of Contents*1.3.2 Ferroalloy production and operations*

We conduct our ferroalloy businesses through our wholly-owned subsidiary Vale Manganês.

The production of ferroalloys consumes significant amounts of power, representing 6.3% of our total consumption in 2013. The power supply for our ferroalloy plants is provided through long-term power purchase contracts. For information on risks associated to possible power supply issues, see item 4.1 in this Reference Form.

We produce several types of manganese ferroalloys, such as high carbon and medium carbon manganese and ferro-silicon manganese.

Plant	Location	Description / History	Nominal capacity	Power source
Minas Gerais Plants	Cities of Barbacena and Ouro Preto	Barbacena has 6 furnaces, two refinery stations and a crushing plant. Ouro Preto has 3 furnaces.	74,000 tons are processed per year at the plant in Barbacena and 65,000 tons per year at the plant in Ouro Preto.	Power provided by the national power network. Power also supplied by independent producers under long term agreements.
Bahia Plants	City of Simões Filho	Four furnaces, two conversion process and one sintering plant.	150,000 tons per year	Power provided by the national power network. Power also supplied by independent producers under long term agreements.

The table below presents information on our production of ferroalloys.

Plant	Production during fiscal year ending December 31		
	2011	2012 (thousand metric tons)	2013
Barbacena	67	65	45
Ouro Preto	61	62	48
Simões Filho	76	79	82
<b>Total</b>	<b>204</b>	<b>206</b>	<b>175</b>

*1.3.3. Manganese ore and ferroalloys: market and competition*

The markets for manganese ore and ferroalloys are highly competitive. Competition in the manganese ore market takes place in two segments. High-grade manganese ore competes on a global seaborne basis, while low-grade ore competes on a regional basis. For some ferroalloys, high-grade ore is mandatory, while for others high- and low-grade ores are complementary. The main suppliers of high-grade ores are located in South Africa, Gabon, Australia and Brazil. The main producers of low-grade ores are located in Ukraine, China, Ghana, Kazakhstan, India and

Mexico.

The ferroalloy market is characterized by a large number of participants who compete primarily on the basis of price. The principal competitive factors in this market are the costs of manganese ore, power, logistics and reductants. We compete with stand-alone producers and integrated producers that also mine their own ore. Our competitors are located mainly in countries that produce manganese ore or steel.

## 2. **Basic Metals**

### 2.1. Nickel

#### 2.1.1. *Operations*

We conduct our nickel operations mainly through our wholly-owned subsidiary



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Vale Canada, which operates two nickel production systems, one at the North Atlantic and one in Asia-Pacific. A third nickel production system, Onça Puma, in South Atlantic, has resumed ramp-up activities in the end of 2013. Our nickel operations are presented in the table below.

Mining System / Company	Location	Description / History	Operations	Mining license	Power source	Access / Transportation
<u>North Atlantic</u>						
Vale Canada	Canada Ontario	Sudbury, Integrated mining, crushing, smelting and refining operations to turn ore into refined nickel with nominal capacity of 66,000 metric tons of refined nickel per year and additional <i>feed</i> of nickel oxide to the refinery in Wales. Mining operations in Sudbury started in 1885. Vale acquired Sudbury upon acquiring Inco Ltd. in 2006.	Primarily underground mining operations with sulfate nickel with some copper, cobalt, PGMs, gold, and silver. The construction of the Totten mine concluded in 2013. We also conduct smelting and refining of nickel concentrate at our operations in Voisey's Bay. Additionally to producing finished nickel in Sudbury, we send an intermediate product, nickel oxide, to our nickel refinery in Wales to process it into end products. We also have capacity to send nickel oxide to our Asian refineries.	Patented mining rights with no expiration date; mining leases end in 2014 and 2032; and mining license with undetermined validity term.	Power provided by the Ontario power network and produced directly by Vale.	Located at the TransCanada road and two main railroads cross Sudbury. Finished products are delivered to the North-American market by truck. For customers abroad, products are loaded in containers and travel in intermodal model (truck / train / cargo vessel) for ports in Canada's eastern and western coast.
Vale Canada	Canada Thompson, Manitoba	Integrated mining, crushing, <i>smelting</i> and refining operations to turn ore into refined nickel with nominal capacity of 45,000 metric tons of refined nickel per year. Mining at Thompson was discovered in 1956 and acquired by Vale upon acquiring Inco Ltd. in 2006.	Primarily underground mining operations with sulfate nickel. These resources also contain some copper and cobalt. The local concentrate with nickel concentrate at our operations in Voisey's Bay for smelting and refining aiming to achieve a high quality nickel plate product. We are considering eliminating <i>smelting</i> and refining processes in Thompson, due to new federal rules of sulfur dioxide emissions to be in force in 2015.	Application before the Lease Council matures between 2020 and 2030; mining leases end in 2034.	Power provided by public utilities at the province.	Finished products are delivered to the North-American market by truck. For customers abroad, products are loaded in containers and travel in intermodal model (truck / train / cargo vessel) for ports in Canada's eastern and western coast.
Vale Newfoundland & Labrador Limited	Canada Voisey's Bay, Newfoundland & Labrador	Open pit mine and ore processing into intermediate products nickel and copper	Comprised by the Ovoid open pit mine and deposits with potential for underground	Mining concession end in 2027.	100% provided by Vale diesel generators.	Nickel and copper concentrates are carried to the

concentrate. Voisey Bay operations started in 2005 and were acquired by Vale in 2006.

operations at a later moment. We extract sulfate nickel ore, which also contain some copper and cobalt. Nickel concentrates are currently sent to our operations in Sudbury and Thompson, for final processing (smelting and refinery), while copper concentrate is sold in the market. When the Long Harbour

port by trucks and then are shipped on solid bulk vessels for external markets or our Canadian refining operations.

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Mining System / Company	Location	Description / History	Operations	Mining license	Power source	Access / Transportation
			refinery is operational, our Labrador nickel concentrate will be redirected to the facilities and will be processed as priority.			
Vale Europe Limited	UK Clydach, Wales	Autonomous nickel refinery (producer of refined nickel), with nominal capacity of 40 thousand metric tons per year. The Clydach Refinery started operations in 1902 and was acquired by Vale in 2006.	Processes a nickel intermediate product nickel oxide, provided by Sudbury or Matsuzaka to produce refined nickel as powder or pellets.		Power provided by the national power network.	Transported for the end customer in the United Kingdom and the continental Europe by truck. Products are sent to customers abroad by truck to the ports in Southampton and Liverpool, and shipped into ocean containers.
<u>Asia-Pacific</u>						
PT Vale Indonesia Tbk ( <u>PTVI</u> , formerly known as PT International Nickel Indonesia Tbk)	Indonesia Sorowako, Sulawesi	Open pit mine and respective processing plant (producer of matte nickel, and intermediate product) with nominal capacity of approximately 80,000 metric tons of matte nickel per year. PTVI stock is traded at the Indonesia Stock Exchange. We indirectly hold 59.3% of the capital stock of PTVI and Sumitomo Metal Mining Co., Ltd ( <u>Sumitomo</u> ) holds 20.1% and Sumitomo Corporation hold 0.1% and the public holds 20.5%. PVTI was created in 1968, started operations in 1978 and was acquired by Vale in 2006.	PTVI extracts lateritic nickel ore and produces matte nickel which is sent to refineries in Japan. According to guaranteed sale agreements during the mine use life, PTVI sells 80% of its production to its wholly-owned subsidiary Vale Canada and 20% to Sumitomo.	The employment agreement ends in 2025, and is under negotiation with the Indonesian government.	Power produced at PVTI low cost hydroelectric power plants in the Larona River (there are currently three units). PTVI has thermal generators to complement its power supply with a power source that is not subject to hydrological factors.	Carried by truck for approximately 40 km to the river port, in Malili, and shipped in barges to load cargo ships to send to Japan.
Vale Nouvelle-Calédonie S.A.S ( <u>VNC</u> )	New Caledonia Southern Province	Mining and processing operations (producer of nickel oxide and cobalt carbonate). VNC shares are held by Vale (80.5%), Sumic (14.5%) and Société de Participation	Our nickel operations in New Caledonia are in <i>ramp-up</i> . VNC uses a high-pressure acid leaching process ( <u>HPAL</u> ) to handle lateritic limonitic and lateritic	Mining concession ending between 2015 and 2051.	Power supplied by the national power network and independent producers.	Products are carried into containers and transported by truck for approximately 4 km to the Prony

Minière du Sud  
Caledonien SAS  
( SPMSC ) (5%).

saprolitic ores. We expect to continue with the *ramp-up* in VNC in the next three years to reach nominal production capacity of 57,000 metric tons per year of nickel contained as nickel oxide, to be subsequently processed in our facilities in Asia, as 4,500 metric tons of cobalt as carbonate.

port.

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<b>Mining System / Company</b>	<b>Location</b>	<b>Description / History</b>	<b>Operations</b>	<b>Mining license</b>	<b>Power source</b>	<b>Access / Transportation</b>
Vale Japan Limited	Japan - Matsuzaka	Autonomous nickel refinery (producer of refined nickel), with nominal capacity of 60,000 metric tons per year. Vale holds 87.2% of shares, and Sumitomo holds the remaining stock. The refinery was built in 1965 and acquired by Vale in 2006.	Produces intermediate products to be subsequently treated in our refineries in China, Korea, and Taiwan, and nickel end products using matte nickel provided by PTVI.		Power provided by the national power network. Acquired from regional utilities.	Products are transported by public roads to customers in Japan. For customers abroad, products are carried into containers in the plant and sent through the Yokkaichi and Nagoya ports.
Vale Taiwan Ltd	Taiwan - Kaoshiung	Autonomous nickel refinery (producer of refined nickel), with nominal capacity of 18,000 metric tons per year. The refinery started production in 1983 and was acquired by Vale in 2006.	Produces refined nickel for the stainless steel industry, using intermediate products from our operations in Matsuzaka and New Caledonia.		Power provided by the national power network. Acquired from regional utilities.	Products transported by truck on public roads for customers in Taiwan. For customers abroad, products are carried into containers at the plant and sent through the Kaoshiung port.
Vale Nickel (Dalian) Co. Ltd	China - Dalian, Liaoning	Autonomous nickel refinery (producer of refined nickel), with nominal capacity of 32,000 metric tons per year. Vale holds 98.3% of shares and a Ningbo Sunhu Chemical Products Co., Ltd. holds the remaining 1.7%. The refinery started production in 2008.	Produces refined nickel for the stainless steel industry, using intermediate products mainly from our operations in Matsuzaka and New Caledonia.		Power provided by the national power network. Acquired from regional utilities.	Product carried by truck on public roads and railroads for customers in China. Also provided by containers for some foreign and domestic customers.
Korea Nickel Corporation	South Korea Onsan	Autonomous nickel refinery (producer of refined nickel), with nominal capacity of 30,000 metric tons per year. Vale holds 25.0% of shares and remaining shares are held by Korea Zinc Co., Ltd, Posteel Co., Ltd, Young Poong Co., Ltd. and others. The refinery started	Produces mainly refined nickel for the local stainless steel industry in Korea, using mainly intermediate products that contain about 75% of nickel (as nickel oxide) from our operations in Matsuzaka.		Power provided by the national power network. Acquired from regional utilities.	KNC production is transported by truck in public roads for customers in Korea and is exported in containers for customers abroad, starting at the Busan and Ulsan ports.

production in 1989.

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Mining System / Company	Location	Description / History	Operations	Mining license	Power source	Access / Transportation
<u>South Atlantic</u> Vale/Onça Puma	Brazil - Ourilândia do Norte, Pará	Mining, smelting, and refining operations producing high quality ferro-nickel to be used in the stainless steel industry	The Onça Puma mine is built over a nickel deposit of lateritic and saprolitic ore. The operation produces ferro-nickel through a rotating electric furnace process. We resumed operations with one single line in 2013, with the first production of metal in the fourth quarter in 2013. Nominal capacity of the single line operation is estimated at 25,000 metric tons per year. We will consider opportunities to restart operations at the second line, depending on market perspectives and performance of the single- line furnace.	Mining concession for undetermined period.	Power provided by the national power network, acquired from regional utility companies or produced directly by Vale.	Ferro-nickel is transported by paved public road and by EFC to Itaqui maritime terminal, in the state of Maranhão. Exporting operations are done in ocean containers.

(1) Sumic, a joint venture between Sumitomo and Mitsui, has the option of selling to us all its shares in VNC according to previously agreed upon conditions. Once VNC reaches pre-defined trade levels, Sumic will have an option to buy 6.5% of VNC capital stock, which could offset dilution of Sumic interest in VNC capital stock due to the agreement signed in October 2012. SPMSC must increase its share in VNC to 10% in two years starting at the beginning of the commercial production.

2.1.2 Production

The following table sets forth our annual mine production by operating mine (or on an aggregate basis for PTVI because it has mining areas rather than mines) and the average percentage grades of nickel and copper. The mine production at PTVI represents the product from PTVI's dryer kilns delivered to PTVI's smelting operations and does not include nickel losses due to smelting. For our Sudbury, Thompson and Voisey Bay's operations, the production and average grades represent the mine product delivered to those operations' respective processing plants and do not include adjustments due to beneficiation, smelting or refining. The following table sets forth information about ore production at our nickel mining sites.

	Production during fiscal year ending December 31								
	2011			2012			2013		
	(thousand metric tons, except percentages)								
Production	Grade		Production	Grade		Production	Grade		
	Copper (%)	Nickel (%)		Copper (%)	Nickel (%)		Copper (%)	Nickel (%)	
<b>Ontario operating mines</b>									

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Copper Cliff North	892	1.15	1.03	792	1.09	0.92	913	1.32	1.28
Creighton	991	1.72	2.22	797	1.80	1.84	915	2.01	2.19
Stobie	1,568	0.61	0.74	2,006	0.56	0.66	1,887	0.59	0.65
Garson	640	1.78	2.08	643	1.56	1.61	815	1.42	1.75
Coleman	1,363	3.02	1.77	1,062	2.58	1.51	1,515	3.15	1.52
Ellen	131	0.45	0.90	371	0.44	0.93	109	0.49	1.00
Totten	28	1.01	0.97	6	2.37	1.15	64	1.84	1.92
Gertrude				36	0.27	0.72	196	0.32	0.89
<b>Total Ontario operations</b>	<b>5,612,</b>	<b>1.61</b>	<b>1.45</b>	<b>5,714,</b>	<b>1.29</b>	<b>1.14</b>	<b>6,414,</b>	<b>1.61</b>	<b>1.33</b>
<b><i>Manitoba operating mines</i></b>									
Thompson	1,182		1,76	1,160		1,86	1,175		2,07
Birchtree	721		1,36	643		1,34	613		1,39
<b>Total Manitoba operations</b>	<b>1,903</b>		<b>1,61</b>	<b>1,804</b>		<b>1,67</b>	<b>1,788</b>		<b>1,84</b>
<b><i>Voisey s Bay operating mines</i></b>									
Ovoid	2,366	2,39	3,38	2,351	1,94	3,11	2,318	1,68	2,89
<b><i>Sulawesi operating mining areas</i></b>									
Sorowako	3,848		1,95	3,678		2,02	4,369		2,00



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	Production during fiscal year ending December 31								
	2011			2012			2013		
	Production	Grade		Production	Grade		Production	Grade	
Copper (%)		Nickel (%)	Copper (%)		Nickel (%)	Copper (%)		Nickel (%)	
<b>Mine operations in New Caledonia</b>									
VNC	1,043		1,29	1,179		1,27	1,860		1,36
<b>Mines in operation in Brazil</b>									
Onça Puma	1,466		1,86	1,975		1,87	263		2,28

The following table sets forth information about our nickel production, including: (i) nickel refined at our facilities, and (ii) intermediates designated for sale. The figures below are reported on an ore-source basis.

Mine	Type	Production for fiscal year ending December 31		
		2011	2012	2013
		(Thousands of metric tons)		
Sudbury (1)	Underground	59.7	65.5	69.4
Thompson (1)	Underground	25.0	24.2	24.5
Voisey s Bay(2)	Open pit	68.9	61.9	63.0
Sorowako (3)	Open pit	67.8	69.0	78.8
Onça Puma(4)	Open pit	7.0	6.0	1.9
New Caledonia (5)	Open pit	5.1	4.5	16.3
External (6)		8.0	5.9	6.4
<b>Total(7)</b>		<b>241.5</b>	<b>237.0</b>	<b>260.2</b>

(1) Primary nickel production only (i.e., does not include secondary nickel from unrelated parties).

(2) Includes finished nickel produced at our Sudbury and Thompson operations.

(3) We have a 59.2% interest in PTVI, which owns the Sorowako mines, and these figures include the minority interests.

(4) Primary nickel production only. Nickel found in iron nickel.

(5) We have an 80.5% interest in PTVI, and these figures include the minority interests.

Nickel found in NHC and NiO.

(6) Finished nickel processed at our facilities using feeds purchased from unrelated parties.

(7) These figures tolling of feeds for third-party.

## 2.1.3. Clients and sales

Our nickel customers are broadly distributed on a global basis. On December 31, 2013, 44% of our total nickel sales were delivered to customers in Asia, 28% to North America, 27% to Europe and 2% to other markets. We have short-term fixed-volume contracts with customers for the majority of our expected annual nickel sales. These contracts generally provide stable demand for a significant portion of our annual production.

Nickel is an exchange-traded metal, listed on the London Metal Exchange ( LME ), and most nickel products are priced according to a discount or premium to the LME price, depending primarily on the nickel product's physical and technical characteristics. Our finished nickel products represent what is known in the industry as primary nickel, meaning nickel produced principally from nickel ores (as opposed to secondary nickel, which is recovered from recycled nickel-

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containing material). Finished primary nickel products are distinguishable according to the following characteristics, which determine the product price level and the suitability for various end-use applications:

- Nickel content and purity level: (i) intermediate products present various levels of nickel content, (ii) nickel pig iron has 1.5% to 6% nickel, (iii) ferro-nickel has 10% to 40% nickel, (iv) finished nickel presenting less than 99.8% of nickel, including products such as Tonimet and Utility Nickel, (v) standard LME grade nickel has a minimum of 99.8% nickel, and (vi) high purity nickel has a minimum of 99.9% nickel and does not contain specific elemental impurities;
- Shape (such as pellets, discs, squares, strips and foams); and
- Size.

In 2013, the principal end-use applications for nickel were:

- Austenitic stainless steel (66% of global nickel consumption);
- Non-ferrous alloys, alloy steels and smelting (17% of global nickel consumption);
- Nickel plating (8% of global nickel consumption); and
- Specialty applications, such as batteries, chemicals and powder metallurgy (10% of global nickel consumption).

In 2013, 63% of our refined nickel sales were made into non-stainless steel applications, compared to the industry average for primary nickel producers of 34%, offering better stability for our sales volumes. As a result of our focus on such higher-value segments, our average realized nickel prices for refined nickel have constantly exceeded LME cash nickel prices.

We offer sales and technical support to our customers on a global basis. We have a well-established global marketing network for refined nickel, based in Toronto, Canada. We also have sales and technical support offices in St. Prex (Switzerland), Saddle Brook, New Jersey (United States), Tokyo (Japan), Shanghai (China), and Singapore.

*2.1.4. Competition*

The global nickel market is highly competitive. Our key competitive strengths include our long-life mines, our low production costs compared to other nickel producers, our sophisticated exploration and processing technologies, along with a diversified portfolio of products. Our global marketing reach, diverse product mix, and technical support direct our products to the applications and geographic regions that offer the highest margins for our products.

Our nickel deliveries represented 13% of global consumption for primary nickel in 2013. In addition to us, the largest suppliers in the nickel industry (each with their own integrated facilities, including nickel mining, processing, refining and marketing operations) are: Mining and Metallurgical Company Norilsk Nickel

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( Norilsk ), Jinchuan Nonferrous Metals Corporation ( Jinchuan ), BHP Billiton, and Glencore Xstrata. Together with us, these companies accounted for about 47% of global finished primary nickel production in 2013.

While stainless steel production is a major driver of global nickel demand, stainless steel producers can use nickel products with a wide range of nickel content, including secondary nickel (scrap). The choice between primary and secondary nickel is largely based on their relative prices and availability. In recent years, secondary nickel has accounted for about 44-47% of total nickel used to manufacture stainless steels, and primary nickel has accounted for about 53-56%. Nickel pig iron is a low-grade nickel product made in China from imported lateritic ores (primarily from the Philippines and Indonesia) that is suitable primarily for use in stainless steel production. With nickel being sold at higher prices and a strong demand from the stainless steel industry, domestic production of nickel pig iron and low-content ferro-nickel has experienced ongoing growth in China. It is estimated that in 2013, Chinese production of nickel pig iron and ferro-nickel exceeded 490,000 metric tons, representing 25% of world primary nickel supply. Should the Indonesian mining law restricting exporting ores as raw material come into effect, the Chinese production of pig iron and ferro-nickel may be affected from now on.

Competition in the nickel market is based primarily on quality, reliability of supply and price. We believe our operations are competitive in the nickel market because of the high quality of our nickel products and our relatively low production costs.

## 2.2. Copper

### 2.2.1. *Operations*

We operate our copper businesses in Brazil at the parent-company level and in Canada and Chile through our wholly-owned subsidiaries.

<b>Mining complex / Location</b>	<b>Location</b>	<b>Description / History</b>	<b>Mining / Operations</b>	<b>Mining License</b>	<b>Power source</b>	<b>Access / Transportation</b>
<u>Brazil</u> Vale/Sossego	Carajás, State of Pará	Two main areas of copper, Sossego and Sequeirinho, and a processing facility to concentrate the ore. Sossego was developed by Vale and started production in 2004.	Copper ore is explored in an open pit mine and ROM is processed by primary crushing and transportation, SAG milling (a semiautogene mill using a large rotating drum full of ore, water and steel crushing spheres transform the ore	Mining concession for undetermined period.	Power provided by the national power network, acquired from Eletronorte, under long term power purchase agreement or produced.	The concentrate is transported by truck to the storage terminal in Parauapebas and, subsequently, is taken by the Carajás Railroad (EFC) to the Ponta da Madeira maritime terminal, in São Luís, Maranhão. We built an 85

into a fine paste),  
milling, copper  
fluctuation in  
concentrate,  
waste is disposed  
of, concentrate,

km road  
connecting  
Sossego to  
Parauapebas.

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discharge filter.						
Vale/Salobo	Carajás, State of Pará	Salobo I is in <i>ramp-up</i> to total capacity of 100,000 tpa of concentrate copper. We expect that Salobo will reach total capacity of 200.000 tpa in 2016, after expansion of Salobo II.	Our copper and gold mine in Salobo is an open pit mine and the mine operates by primary and secondary standard crushing, rollers, sphere milling, concentrate copper floating, residue disposal, concentrate closeness, disposal filter.	Mining concession for undetermined period.	Power provided by the national power network, acquired from Eletronorte under the terms of power purchase agreements or produced directly by Vale.	The concentrate is transported by truck to the storage terminal in Parauapebas and, subsequently, is taken by the Carajás Railroad (EFC) to the Ponta da Madeira maritime terminal, in São Luís, Maranhão. We built a 90 km road connecting Salobo to Parauapebas.

Canada

Vale Canada	Canada Ontario	Sudbury, See Basic metals Nickel Operations	We generate two - intermediate copper products: concentrate copper and copper anodes and cathodes of electrolytic copper as by product of nickel refining operations.	See table of our nickel operations.		
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Vale Canada/Voisey s Bay	Canada Voisey s Bay, Newfoundland & Labrador	See Basic metals Nickel Operations	At Voisey s Bay, we produce concentrate copper.	See table of our nickel operations		
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<u>Chile</u>						
Tres Valles	Region of Coquimbo, Chile	Two copper oxide mines: Don Gabriel, open pit mine, and Papomono, an underground mine, as well as an SX-EW plant that produces copper cathodes. Vale holds 90.0% of the stocks and 100% of voting capital, the	We produce copper cathodes at the operation in Tres Valles, located in Salamanca, Coquimbo region. The plant has an annual production capacity estimate in 18,500 metric tons of copper cathode (metal plate) and this is our first cathode plant in industrial scale to	Mining concession for undetermined period.	Power provided by the national power network.	We transport copper cathode by truck from the plant to storage at San Antonio port.

remaining part use  
is held by hydrometallurgical  
Compañía process.  
Minera  
Werenfried.

Zambia

Lubambe	Zambian Copperbelt	Lubambe copper mine (formerly known as Konkola North), includes an underground mine, plant and related	Nominal production capacity of 45,000 metric tons per year of concentrate copper. Production started	Mining concessions end in 2033.	Long term power supply agreement with a Zesco (power supplier	Concentrate copper is transported by truck to local smelters.
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infrastructure. in October 2012. owned by  
 TEAL (our Zambia).  
 50/50 joint  
 venture with  
 ARM) holds  
 80% interest in  
 Lubambe.  
 Zambia  
 Consolidated  
 Copper Mines  
 Investment  
 Holding PLC  
 Ltd. holds the  
 remaining share  
 (20%).

2.2.2. *Production*

The following table provides information about our production of copper.

Mine	Type	2011	Fiscal year ending December 31	
			2012	2013
(million metric tons)				
<b>Brazil:</b>				
Salobo:	Open pit		13	65
Sossego	Open pit	109	110	119
<b>Canada:</b>				
Sudbury	Underground	101	79	103
Voisey's Bay	Open pit	51	42	36
Thompson	Underground	1	3	2
External (1)		31	29	24
<b>Chile:</b>				
Tres Valles (2)	Open pit and underground	9	14	11
<b>Zambia:</b>				
Lubambe (3):	Underground		1	9
<b>Total</b>		<b>302</b>	<b><u>290</u></b>	<b><u>370</u></b>

(1) We process copper at our facilities using third party resources.

(2) We sold Tres Valles in December 2013. 2013 production by the end of October

(3) Vale's attributable production capacity of 40%

2.2.3. *Clients and sales*

The copper concentrate from Sossego and Salobo Phase I is sold under mid and long-term contracts executed with copper smelters in South America, Europe and Asia. We have medium- and long-term copper distribution agreements with Glencore Canada, to sell anode copper and a significant part of copper concentrate produced in Sudbury. Copper concentrate from Voisey's Bay is sold through mid-term agreements with clients in Europe. Electrolytic copper from Sudbury is sold in North America through short-term sale agreement.

2.2.4. *Competition*

The copper global market is highly competitive. It is produced by mining companies and customized smelters that cover all areas of the world; the customers are mostly producers of copper wires, rods and alloy. Competition takes place mostly at a regional level, and it is based mostly in production, quality, distribution reliability and logistics costs. The largest cathode copper

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producers in the world are Corporación Nacional del Cobre de Chile ( Codelco ), Aurubis AG, Glencore Xstrata, Freeport-McMoRan Copper & Gold Inc. ( Freeport-McMoRan ), Jiangxi Copper Corporation Ltd and Xstrata, operating at the parent company level or through subsidiaries. Our participation in the global cathode copper market is negligible.

Copper concentrate and copper anodes are intermediate products in the copper production chain. The concentrate and anode markets are competitive, with several producers, but few participants and smaller volumes than the cathode copper market due to the high levels of integration of large copper producers.

In the copper concentrate market, the main producers are mining companies located in South America, Indonesia, and Australia, while the consumers are smelters located in Europe and Asia. Competition in the copper concentrate market takes place mostly at a global level, and it is based mostly in product cost, quality, logistics costs and distribution reliability. Main competitors in the copper concentrate market are BHP Billiton, Antofagasta plc, Freeport-McMoRan, Glencore Xstrata, Codelco, and Rio Tinto, operating at a parent company level and through subsidiaries. Our market share in 2013 was approximately 4% of the total concentrate market.

The copper anode/blister market is very limited in this industry. In general, anodes are produced to supply the integrated refining of every company. Anode/blister trade is limited to facilities that have more smelting capacity than what the plant can handle or the financial situation regarding logistics costs is an incentive to purchase anodes from other smelters. The main competitors in the anode market in 2013 were Codelco, Glencore Xstrata, China Nonferrous Metals, and Anglo American and Xstrata, operating at a parent company level or through its subsidiaries.

2.3. PGM and other precious metals

As by-products of our Sudbury nickel operations in Canada, we recover significant quantities of metals of the platinum group, as well as small quantities of gold and silver. We also recover gold as a by-product of our operations in Salobo and Sossego, in Carajás, in the State of Pará. We operate a processing facility in Port Colborne, Ontario, which produces PGMs, gold and silver intermediate products, using feeding from our operation in Sudbury. We have a refinery in Acton, England, where we process our intermediate products, as well as feeds purchased from unrelated parties and toll refined products. In the fiscal year ending on December 31, 2013, PGM concentrates from our Canadian operations account for 55% of our production, which also includes metals purchased from unrelated parties. Our base metal commercial department sells our PGMs and other precious metals, as well as products from unrelated parties and toll-refined products, based on commission.

In February 2013, Vale Switzerland S.A. signed an agreement with Silver

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Wheaton Corp. to sell 70% of the gold produced as a byproduct at its nickel mines in Sudbury, in Canada, in the next 20 years, and with Silver Wheaton (Caymans) Ltd. to sell 25% of payable gold flows produced as byproduct at its copper mine in Salobo, in Brazil, during the mine use life. Under the terms in the gold flow agreement, Silver Wheaton received 34,325 troy ounces of gold in 2013.

The following table presents information on production of the Company's precious metals.

Mine(1)	Type	Fiscal year ending December 31		
		2011	2012	2013
(Thousand troy ounces)				
<b>Sudbury:</b>				
Platina	Underground	174	134	145
Paládio	Underground	248	251	352
Ouro	Underground	182	69	91
<b>Salobo:</b>				
Ouro	Open pit		20	117
<b>Sossego:</b>				
Ouro	Open pit	90	75	78

(1) *Production figures exclude precious metals purchased from unrelated parties and toll-refined materials.*

### 2.4. Cobalt

We recover significant quantities of cobalt, classified as a minor metal, as a by-product of our nickel operations. In the year ending on December 31, 2013, we produced 1,550 metric tons of refined cobalt metal at our Port Colborne refinery and 685 metric tons of cobalt in a cobalt-based intermediate at our nickel operations in Canada and New Caledonia, and our remaining cobalt production consisted of 1,297 metric tons of cobalt contained in other intermediate products (such as nickel concentrates). As result of the ramp-up of VNC operations in New Caledonia, our production of intermediate cobalt as by-product of our nickel production will increase. We sell cobalt on a global basis. Our cobalt metal, which is electro-refined at our Port Colborne refinery, has very high purity levels (99.8%), value higher than specified in LME contract. Cobalt metal is used in the production of various alloys, particularly for aerospace applications, as well as the manufacture of cobalt-based chemicals.

The following table sets forth information on our cobalt production.

Mine	Type	Fiscal year ending December 31		
		2011	2012	2013
(Metric tons)				
Sudbury	Underground	593	589	853
Thompson	Underground	158	96	292
Voisey's Bay	Open pit	1,585	1,221	256
New Caledonia	Open pit	245	385	1,117
External sources (1)		93	52	13
<b>Total</b>		<b>2,675</b>	<b>2,343</b>	<b>3,532</b>



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(1) These figures do not include unrelated-party tolling of feeds for unrelated parties.

### 3. Fertilizers

#### 3.1. Phosphates

We operate our phosphate business through our subsidiaries and joint ventures, as presented in the table below.

Firm	System	Our participation (%)		Our partners
		Voting	Total	
Vale Fertilizantes	Uberaba, Brazil	100.0	100.0	-
MVM Resources International, B.V	Bayóvar, Peru	51.0	40.0	Mosaic, Mitsui & Co.
Vale Cubatão	Cubatão, Brazil	100.0	100.0	-

Vale Fertilizantes is a company that produces phosphate rock, phosphate fertilizers ( P ), (e.g. monoammonium phosphate ( MAP ), dicalcium phosphate ( DCP ), triple superphosphate ( TSP ) and single superphosphate ( SSP )) and nitrogen ( N ) fertilizers (e.g., ammonia and ammonium nitrate). It is the largest producer of phosphate and nitrogen crop nutrients in Brazil. Vale Fertilizantes operates the following phosphate rock mines by means of concessions for undetermined term: Catalão, in the state of Goiás, Tapira and Patos de Minas and Araxá, in the state of Minas Gerais, and Cajati, in the state of São Paulo, all in Brazil. In addition, Vale Fertilizantes has nine processing plants for the production of phosphate and nitrogen nutrients located in Catalão, Goiás; Araxá, Patos de Minas, and Uberaba, in Minas Gerais; Guará, Cajati, and three plants in Cubatão, in Sao Paulo. In July 2013, we concluded the sale of Araucária operations for US\$ 234 million dollars to Petrobras.

Since 2010, we also operate the Bayovar phosphate rock, in Peru, with nominal production capacity of 3.9 Mtpa, by means of one concession for undetermined term.

The following table contains information regarding Vale's phosphate rock production.

Mine	Type	Fiscal year ending December 31		
		2011	2012	2013
		(million metric tons)		
Bayóvar	Open pit	2,544	3,209	3,546
Catalão	Open pit	947	1,026	1,057
Tapira	Open pit	2,011	2,068	1,869
Patos de Minas	Open pit	44	44	53
Araxá	Open pit	1,231	1,084	1,111
Cajati	Open pit	582	550	640
<b>Total</b>		<b>7,359</b>	<b>7,982</b>	<b>8,277</b>

The following table contains information regarding our production of phosphate and nitrogen nutrients.

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Product	2011	Fiscal year ending December 31	
		2012	2013
(million metric tons)			
Monoammonium phosphate (MAP)	823	1,201	1,128
Triple superphosphate (TSP)	811	913	905
Single superphosphate (SSP)	2,638	2,226	2,102
Bicalcium phosphate (DCP)	580	511	444
Ammonia	619	475	347
Urea	628	483	219
Nitric acid	468	478	416
Ammonium Nitrate	458	490	419

3.2. Potash

We conduct potash operations in Brazil at the parent-company level, by means of mining concessions for undetermined term. We entered a leasing agreement for Taquari-Vassouras, the only potash mine in Brazil (in Rosario do Catete, in the state of Sergipe), with Petrobras since 1992. In April 2012, we extended the concession for other 30 years. The following table sets forth information on our production of potash:

Mine	Type	2011	Fiscal year ending December 31		2013	Process Recovery in 2013
			(Thousands of metric tons)			
						(%)
Taquari-Vassouras	Underground	625	549	492	85.9	

3.3. *Clients and sales*

All potash sales from the Taquari-Vassouras mine are to the Brazilian market. In 2013, our production represented close to 6% of total potash consumption in Brazil. We have a presence and long-standing relationships with the major players in Brazil, with more than 60% of our sales allocated to four traditional clients.

Our phosphate products are sold mainly to the fertilizer industry. In 2013, our sales represented near 27% of the total phosphate consumption in Brazil, with imports representing a 56% of total supply. In the high concentration segment, Vale supplied over 32% of total consumption in Brazil, with products such as MAP, and TSP. In the low phosphate concentration nutrients segment, our sales represented near 33% of total consumption in Brazil with SSP and DCP products.

3.4. *Competition*



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The sector is divided into three major groups of nutrients: potash, phosphate and nitrogen. There are limited resources of potash around the world with Canada, Russia and Belarus being the most important suppliers, each one with a small number of producers. The sector presents a high level of investment and requires long time for a project to mature. In addition, the potash segment

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is highly concentrated, with 10 major producers holding over 95% of the total global production capacity. While potash is a scarce resource, phosphate is more available, but all major exporters are located in the northern region of Africa (Morocco, Algeria and Tunisia) and in the United States. The five major producers of phosphate rock (China, Morocco, United States, Russia, and Brazil) hold 79% of global production, of which around 14% is exported. Meanwhile, products with great added value, such as MAP and DCP are usually marketed instead of phosphate rock, due to cost-benefit relationship.

Brazil is one of the largest agribusiness markets in the world due to its high production, exportation and consumption of grains and biofuel. It is the fourth-largest consumer of fertilizers in the world and one of the largest importers of phosphates, potash, urea and phosphoric acid. Brazil imports 93% of its consumed potash, which corresponds to 8.1 Mtpa of KCL (potassium chloride) from Canadian, German, Russian, Belarusian, and Israelis in descending order, which represents a 15% increase compared to 2012. In terms of global potash consumption, China, the United States, Brazil, and India represent approximately 58% of global consumption, where Brazil is responsible for 17% of this total. Our fertilizer projects are highly competitive in terms of cost and logistics in the Brazilian market.

Most phosphate rock concentrate is consumed locally by downstream integrated producers, while logistics with the seaborne market correspond to 14% of total phosphate rock production. Major phosphate rock exporters are concentrated in North Africa, mainly through state-owned companies, with the Moroccan OCP Group holding 30% of the total seaborne market. Brazil imports 56% of the total phosphate nutrients it needs in both phosphate fertilizer products and phosphate rock. The phosphate rock imports supply non-integrated producers of phosphate fertilizers such as SSP, TSP and MAP.

Nitrogen-based fertilizers are basically derived from ammonia (NH<sub>3</sub>), which, in turn, is produced from the nitrogen that is present in the air and in natural gas, making it a nutrient with high level of energy. Ammonia and urea are the main consumables of nitrogen based fertilizers. The consumption of nitrogen-based fertilizers presents a regional profile due to the high cost associated with transportation and storage of ammonia, which requires refrigerated and pressurized facilities. Consequently, only 11% of ammonia produced in the world is traded. North America is the largest importer, with 33% of the global market. Major exporters are Central America, Russia, East Europe, and the Middle East.

**4. Infrastructure**

4.1. Logistics Services

We have developed our logistics business based on the transportation needs of our mining operations, while we also provide transportation services for other customers.

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We conduct our logistics businesses at the parent-company level, through subsidiaries and joint ventures, as set forth in the following table. One of these subsidiaries is VLI S.A. ( VLI ), provider of logistic integrated solutions by the 9,742 km of railroads (FCA, FNS, EFVM and EFC), five inside terminals with total storage capacity of 509,320 tons and operations in three maritime and port terminals. Currently, we hold 64.1% of VLI capital stock, but we have agreed upon selling interest into VLI for Brookfield, and upon closure, we will hold 37.6% interest in VLI. Currently we classify VLI in our financial statement as an asset held for divestiture. For more information on said transaction, see item 6.5 in this Reference Form.

Firm	Business	Location	Our participation		Partners
			Voting	Total	
			(%)		
Vale	Port, maritime and railroad operations (EFVM e EFC).	Brazil			
VLI (1)	Port, maritime and railroad operations and land terminals. Holding specific cargo assets.	Brazil	37,6	37,6	FI-FGTS, Mitsui and Brookfield
FCA(1)(2)	Railroad operations.	Brazil	37,6	37,6	FI-FGTS, Mitsui and Brookfield
FNS (1)(2)	Railroad operations	Brazil	37,6	37,6	FI-FGTS, Mitsui and Brookfield
MRS	Railroad operations	Brazil	46.8	47.6	CSN, Usiminas and Gerdau
CPBS	Port, maritime and railroad operations	Brazil	100.0	100.0	
PTVI PTV	Port, maritime and railroad operations	Indonesia	59.3	59.3	Sumitomo, public investors
CPBS	Port, maritime and railroad operations	Brazil	100.0	100.0	
Vale Logística Argentina	Maritime operations.	Argentina	100.0	100.0	
CEAR(3)	Railroad.	Malawi	43.4	43.4	Mozambique, P.E. ports and railroads
CDN(4)	Maritime and railroad operations.	Mozambique	43.4	43.4	Mozambique, P.E. ports and railroads
CLIN	Maritime and railroad operations	Mozambique	80.0	80.0	Mozambique, P.E. ports and railroads
Vale Logistics Limited	Railroad operations.	Malawi	100.0	100.0	
Transbarga Navegación	River system in Paraguai and Paraná rivers (Comboios).	Paraguay	100.0	100.0	

(1) Vale owns 64.1% of the capital stock and voting capital of VLI. Upon conclusion of the sale to Brookfield, Vale will maintain rights to vote and total interest indicated in the table. Vale, Mitsui, FI-FGTS and Brookfield will jointly control VLI, under the terms of a shareholders agreement.

(2) FCA and FNS are controlled by VLI.

(3) Vale holds control of its participation in CEAR through 85% interest in SDCN.

(4) Vale holds control of its participation in CDN through 85% interest in SDCN.

*4.1.1. Railroads*

- Brazil
  
- Vitória a Minas railroad (EFVM) The EFVM railroad links our Southeastern System mines in the Iron Quadrangle region in the state of

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Minas Gerais to the Tubarão Port, in Vitória, in the state of Espírito Santo. We operate this 905-kilometer railroad under a 30-year renewable concession, which expires in 2027. The EFVM railroad consists of two lines of track extending for a distance of 601 kilometers to permit continuous railroad travel in opposite directions, and single-track branches of 304 kilometers. Industries are located in this area and major agricultural regions are also accessible to it. VLI holds rights to use the railroad transportation capacity at our EFVM line. In 2013, EFVM carried daily an average of 321,890 metric tons of iron ore, or a total of 77,53 billion ntk of iron ore and other cargo, of which 15.56 billion ntk, or 20.1%, consisted of cargo transported for customers, including iron ore for Brazilian customers. The EFVM railroad also carried 890 thousand passengers in 2013. On December 31, 2013, we had a fleet of 321 locomotives and 15,212 wagons at EFVM.

- Carajás railroad ( EFC ). The EFC railroad connects our mines in the Northern System in the Carajás region in the state of Pará to the maritime terminal Ponta da Madeira, in São Luís, in the state of Maranhão. We operate the EFC railroad under a 30-year renewable concession, which expires in 2027. EFC extends for 892 kilometers from mines in Carajás to the Ponta da Madeira maritime terminal located near the Itaquí Port. Its main cargo is iron ore, principally carried mainly for the Company. VLI holds rights to use the railroad transportation capacity at our EFC line. In 2013, EFC carried daily an average of 296,155 metric tons of iron ore. In 2013, the EFC railroad carried a total of 102.03 billion ntk of iron ore and other cargo, 3.50 billion ntk of which was cargo for customers, including iron ore for Brazilian customers. EFC also carried 308 thousand passengers in 2013. EFC supports the largest capacity train in Latin America, which measures 3.4 kilometers, weighs 41, 838 gross metric tons when loaded and has 330 cars. In 2013, EFC had a fleet of 266 locomotives and 16,434 wagons.

The principal items of cargo of the EFVM and EFC railroads are:

- Iron ore and iron ore pellets, carried for the Company and our customers;
- Steel, coal, pig iron, limestone and other raw materials carried for customers with steel mills located along the railroad;
- Agricultural products, such as grains, soybean meal and fertilizers; and
- Other general cargo, such as pulp, fuel and chemical products.

We charge market prices for customer freight, including iron ore pellets originating from joint ventures and other enterprises in which we do not have 100% equity interest. Market prices vary based on the distance traveled, the type of product transported and the weight of the freight in question, and are regulated by the Brazilian transportation regulatory agency, ANTT (Agência Nacional de Transportes Terrestres).

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- Centro-Atlântica railway ( FCA ). FCA is a VLI affiliate that operates a central-east regional railway network of the Brazilian national railway system under a 30-year renewable concession, which expires in 2026. The central east network has 7,220 kilometers extending into the states of Sergipe, Bahia, Espírito Santo, Minas Gerais, Rio de Janeiro, Goiás and the Federal District. The railroad connects with the EFVM railroad near the cities of Belo Horizonte, in the state of Minas Gerais and Vitória, in the state of Espírito Santo. FCA operates on the same track gauge as the EFVM railroad and provides access to the Santos Port in the state of São Paulo. In 2013, the FCA railroad transported a total of 13.92 billion ntk of cargo essentially for customers. In 2013, FCA had a fleet of 891 locomotives and 16,744 wagons, including its own and leased wagons.

- Norte-Sul railway ( FNS ). FNS is a VLI wholly-owned subsidiary that operates under a 30-year renewable sub concession for commercial operation of a 724-kilometer stretch of the FNS railroad, in Brazil. Since 1989, we have operated a segment of the FNS, which connects to the EFC railroad, enabling access to the port of Itaqui, in São Luís, where our Ponta da Madeira maritime terminal is located. A 452-kilometer extension was concluded in December 2008. In 2013, the FNS railroad transported a total of 2.46 billion ntk of cargo for customers. This new railroad creates a new corridor for the transportation of general cargo, mainly for the export of soybeans, rice and corn produced in the center-northern region of Brazil. In 2013, FNS had a fleet of 41 locomotives and 639 wagons, including its own and leased wagons.

- MRS Logística S.A. ( MRS ) The MRS railroad is 1,643 kilometers long and links the Brazilian states of Rio de Janeiro, São Paulo and Minas Gerais. In 2013, the MRS railroad carried a total of 156.1 million metric tons of cargo, including 68.4 million metric tons of iron ore and other cargo from Vale.

- Africa

We are developing the Nacala logistic corridor, to connect the Moatize unit to the Nacala-à-Velha maritime terminal, located in Nacala, Mozambique and that crosses the Republic of Malawi. The Nacala corridor is a railroad and a port infrastructure, including greenfield railroads existing in Mozambique and Malawi and a new port for coal in Mozambique. These projects will allow the Moatize expansion and will offer support to our operations in Central and East Africa. In Mozambique, we are developing greenfield projects under two concession agreements maintained by our subsidiary Corredor Logístico Integrado de Nacala S.A. ( CLN ), which matures in 2043, subject to an extension and we will refurbish existing railroads under the concession granted by our subsidiary Corredor de Desenvolvimento do Norte S.A. ( CDN ), which matures in 2035. In Malawi, we are developing a greenfield railroad under the concession held by our subsidiary Vale Logistics Limited ( VLL ), which matures in 2041, subject to

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renewal. We will rehabilitate existing railroads under the concession held by our subsidiary Central East African Railway Company Limited ( CEAR ), which was extended to 2013, for a 30-year period starting from the beginning of railroad services under concession of VLL greenfield railroad. We will also invest in the construction of necessary connections in Moatize to a new deep water maritime terminal to be built in Nacala-à-Velha by CLIN. We continue to consider partnerships to future use and possible development of the Nacala Corridor.

4.1.2. *Ports and maritime terminals*

- *Brasil*

We operate a port and maritime terminals principally as means to conclude the delivery of our iron ore and pellets to bulk carrier vessels serving the seaborne market. For more information, see item 1.1 Iron Ore and Pellets in this section of the Reference Form. We also use our port and terminals to handle customers cargo. In 2013, 1.2% of the cargo handled by our port and terminals represented cargo handled for customers.

- Tubarão Port. The Tubarão Port, which covers an area of approximately 18 square kilometers, is located near the Vitória Port, state of Espírito Santo, and contains: (i) an iron ore maritime terminal which we operate directly, (ii) the Praia Mole Terminal, and (iii) the Terminal de Produtos Diversos, which is operated by VLI. The Iron Ore Maritime Terminal has two piers. Pier I can accommodate two vessels at a time, one of up to 170,000 DWT on the southern side and one of up to 200,000 DWT on the northern side. Pier II can accommodate one vessel of up to 405,000 DWT at a time, limited at 23 meters draft plus tide. In Pier I, there are two ship loaders, which can load up to a combined total of 13,500 metric tons per hour each. In Pier II there are two ship loaders that could work alternately and can each load up to 16,000 metric tons per hour continuously. In 2013, 101.6 million metric tons of iron ore and pellets were shipped through the terminal. The iron ore maritime terminal has a storage yard capacity of 3.4 million metric tons. Praia Mole Terminal is principally a coal terminal and handled 9.8 million metric tons in 2013. Terminal de Produtos Diversos handled 7.4 million metric tons of grains and fertilizers in 2013.

- Ponta da Madeira Maritime Terminal. The Ponta da Madeira Maritime Terminal is located near the Itaqui Port, state of Maranhão. Pier I can accommodate vessels displacing up to 420,000 DWT and has a maximum loading rate of 16,000 tons per hour. Pier I can accommodate vessels of up to 155,000 DWT and has a maximum loading rate of 8,000 tons per hour. Pier III, with two berths and three ship loaders, can accommodate vessels of up to 200,000 DWT on the south berth and 180,000 DWT on the north berth or two 180,000 DWT ships simultaneously), depending on tide conditions, with maximum loading rate of 8,000 metric tons per hour in each. Pier IV (south berth) can accommodate vessels displacing up to 420,000 DWT and two ship loaders operating alternately with maximum loading rate of 16,000 tons

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per hour. Cargo shipped through our Ponta da Madeira maritime terminal consists principally of our own iron ore production, except for Pier II, which is used for general cargo. Other cargo includes manganese ore produced by Vale and pig iron and soybeans for unrelated parties. In 2013, 107 million metric tons of iron were handled through the terminal. The Ponta da Madeira maritime terminal has a storage yard with capacity of 8.9 million metric tons, to be expanded to 10.7 million metric tons.

- *Itaguaí maritime terminal* - *Cia. Portuária Baía de Sepetiba ( CPBS )*. CPBS is a wholly owned subsidiary that operates the Itaguaí terminal, in the Sepetiba Port, state of Rio de Janeiro. Itaguaí's maritime terminal has docks that allow the loading of ships up to 18 meters of draft and up to 200,000 DWT. In 2013, the terminal loaded approximately 21.9 million metric tons of iron ore
- *Guaíba Island maritime terminal*. We operate a maritime terminal on Guaíba Island in the Sepetiba Bay, in the state of Rio de Janeiro. The iron ore terminal has a pier that allows the loading of ships of up to 350,000 DWT. In 2013, the terminal loaded approximately 39.9 million metric tons of iron ore.
- *Inácio Barbosa maritime terminal ( TMIB )*. Vale operates the Inácio Barbosa maritime terminal, located in the Brazilian state of Sergipe. The terminal is owned by Petrobras. Vale and Petrobras entered into a service agreement that provides for the operation of this terminal until June 2014. VLI and Petrobras entered into a consortium agreement that provides for TMIB operation by VLI for a 25 year period, beginning after receipt of all governmental approvals. This consortium agreement was approved by the Administrative Council of Economic Defense - CADE and ANTAQ (National Agency of Water Transportation) and is subject to approval by the Brazilian Port Authority ( SEP ).
- *Santos Maritime Terminal ( TIPLAM , formerly TUF)*. We operate a maritime terminal in Santos, state of Sao Paulo. The iron ore terminal has a pier that allows the loading of ships of up to 67,000 DWT. In 2013, the terminal moved approximately 2.3 million metric tons of ammonia and bulk solids.
- Argentina

Vale Logística Argentina S.A. ( Vale Logística Argentina ) operates a terminal at the San Nicolas port located in the province of Buenos Aires, Argentina, where it has been authorized to use a 20,000 square meters storage yard until October 2016 and has executed an agreement with unrelated parties to an additional 27,000 square meters storage yard. We handled 1.17 million metric tons of iron ore and manganese through this port in 2013, from Corumbá, Brazil, through the Paraná and Paraguay rivers to be transported to Brazilian, Asian and European markets. The loading rate at this port is 15,000 tons per day and unloading rate of 11,000 tons per day.



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- Oman

Vale Oman Distribution Center LLC ( VODC ) operates a distribution center in Liwa, Oman. The maritime terminal has a 1.4 km deep water pier, which is integrated to a storage Yard with movement and processing capacity of 40 Mtpa of iron ore and pellets per year. The nominal loading capacity of this port is 10,000 tons/day and nominal unloading of 9,000 tons/day.

- Indonesia

PTVI owns and operates two ports in Indonesia to support its nickel mining activities.

The Balantang Special Port is located in Balantang Village, South Sulawesi, and has two types of piers with total capacity of 6,000 DWT: one barge skidder of up to 4,000 DWT for bulk dry volume and a dock for general cargo of up to 2,000 DWT.

The Harapan Tanjung Mangkasa Special Port is located in Lampia Village, South Sulawesi, with armoring buoys that can accommodate vessels displacing up to 20,000 DWT, and a terminal that can accommodate fuel tankers with displacing up to 2,000 DWT, with total capacity of 22,000 DWT.

- New Caledonia

We have and operate a port in Prony Bay, South Province, New Caledonia. This port has three terminals, including a passenger boat terminal for two vessels of up to 50 meters, a dock for dry bulk material for vessels of up to 55,000 DWT to unload at 10,000 tons a day and a general cargo dock for vessels of up to 215 meters. The general cargo dock can receive containers at 10 units per hour, liquid fuels (GLP, BPF, Diesel) at 600 cubic meters per hour, and *break-bulk*. The containers patio, a covered area of about 13,000 square meters, can receive up to 800 units. A bulk storage patio is linked to the port by a belt with storage capacity of 90,000 tons of limestone, 95,000 tons of sulfur and 60,000 tons of coal.

4.1.3. *Navigation*

We continue to develop and operate a low cost fleet of vessels, comprised of company-owned vessels and leased vessels through mid and long-term lease agreements, to support our bulk material businesses. In the end of 2013, 29 of our vessels were operating, including 15 Valemax vessels, with capacity of 400,000 DWT, and other 14 capesize vessels and up, with capacities varying between 150,000 to 250,000 DWT. We also lease 16 Valemax vessels under long-term agreements. We are expecting the delivery of additional four Valemax vessels from a Chinese provider in 2014. To support our strategy to deliver iron ore, Vale holds and operates two floating transfer stations in the Subic Bay, the Philippines, that transfers iron ore from our Valemax vessels to smaller vessels that deliver the cargo to its destination. With this service, we



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expect to improve our ability to offer our iron ore products to the Asian market at competitive prices and to increase our market share in China and the global seaborne market. In 2013, we carried approximately 135 million metric tons of iron ore and pellets on CFR basis. (cost and freight)

On the Paraná and Paraguay fluvial system, we transport iron ore and manganese through our subsidiary, Transbarga Navigacion, which transported by rivers 2.09 million tons in 2013 and our subsidiary, Vale Logistica Argentina, which loaded 1.17 million tons of ore through the port of Saint Nicolas in seaborne vessels in 2013. In 2010, we also purchased two new convoys (two tugboats and 32 barges) which will start operating in 2014.

We also operate a fleet of 24 tugboats in maritime terminals in Brazil, specifically in Vitória, state of Espírito Santo; Trombetas and Vila do Conde, state of Pará; São Luís, state of Maranhão; Mangatiba, state of Rio de Janeiro, and Aracaju, state of Sergipe.

*4.1.4. Energy*

Vale manages its power generation portfolio based on the current and projected energy needs of its operations, with the goal of reducing energy costs and minimizing the risk of energy shortages.

• **Brazil**

Energy management and efficient supply in Brazil are priorities for us, given the uncertainties associated with changes in the regulatory environment, and the risk of rising prices. In 2013 our total installed energy capacity in Brazil was 1.2 GW. We use the electricity produced by these plants for our internal consumption needs. We currently have nine hydroelectric power plants and four small-sized hydroelectric plants in operation. The hydroelectric power plants of Igarapava, Porto Estrela, Funil, Candonga, Aimorés, Capim Branco I, Capim Branco II and Machadinho are located in the Southern and Southeastern areas and the Estreito plant is located in the Northern area. As soon as operations entered with CEMIG GT are concluded, the joint venture Aliança Geração will hold interest in our company and CEMIG GT at the following hydroelectric plants: Porto Estrela, Igarapava, Funil, Capim Branco I e II, Aimorés and Candonga.

Additionally to these plants in operation, we also have 9.0% of the stocks in Norte Energia S.A. ( NESA ), a company incorporated with the sole purpose of deploying and operating the Belo Monte Hydroelectric Plant, in Pará. After conclusion of the transactions with CEMIG GT, we will indirectly hold 4.59% in Norte Energia, through Aliança Norte Energia. Our interest on NESSA capital, and for the establishment of a joint venture comprised of assets of the Belo Monte Project, grants us the right to acquire 9% of the power generated by the plant, which had been acquired under a long term power purchase agreement,

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signed with Norte Energia. For more information on this operation, see item 6.5 in this Reference Form.

We also produce palm oil in the State of Pará, which will be used to produce biodiesel. Biodiesel will be mixed with regular diesel to produce a fuel known as B20 (with 20% biodiesel), to be used in our fleet of locomotives, trucks, and heavy machinery used in operations of the North System.

- **Canada**

In 2013, our hydroelectric power plants in Sudbury generated 20% of the electricity requirements of our Sudbury operations. The power plants consist of five separate generation stations with an installed capacity of 56 MW. The output of the plants is limited by water availability, and by restrictions imposed by a water management plan regulated by the Government of the Province of Ontario. In 2013, the average requirements for power was 197 MW to all surface plants and mines in the Sudbury area.

In 2013, diesel generation provided 100% of the electric requirements of our Voisey's Bay operations. We have six diesel generators on-site, of which only four are in operation, producing an average of 12 MW.

- **Indonesia**

Energy costs are a significant component of our nickel production costs for the processing of saprolitic lateritic ores at PTVI operations in Indonesia. A great portion of the PTVI's electric furnace power requirements are supplied at low-cost by its three hydroelectric power plants located in the Laron River: (i) the Laron plant with average generation capacity of 165 MW, (ii) the Balambano plant with average generation capacity of 110 MW; and (iii) the Karebbe plant with average generation capacity of 90 MW. These plants help reducing the costs by replacing the diesel used in power generation for hydroelectric power, reducing CO<sub>2</sub> emissions, replacing non-renewable power generation, which allow us to increase current nickel production capacity in Indonesia.

## 5. **Other Investments**

Vale owns 50.0% of capital stock of California Steel Industries, Inc. ( CSI ), a producer of flat rolled steel and pipes, located in the United States. The remaining 50% belongs to JFE Steel. CSI's annual production capacity is of about 2.8 million metric tons of flat rolled steel and pipes.

We hold a 26.9% stake in ThyssenKrupp Companhia Siderúrgica do Atlântico ( TKCSA ), an integrated producer of steel plates located in the state of Rio de Janeiro. The plant was commissioned in 2010, and produced 3.6 Mt in 2013. The plant will have final production capacity of 5.0 Mtpa and will require 8.5 million metric tons per year of iron ore and pellets, supplied exclusively by Vale.



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We are also engaged in two other steel projects in Brazil: Companhia Siderúrgica do Pecém ( CSP ), which is being constructed, and Aços Laminados do Pará ( Alpa ), which is under analysis considering discussions pending with the Brazilian government.

Additionally, we hold minor interest in two bauxite mining companies, both in Brazil: Mineração Rio do Norte S.A. ( MRN ) and Mineração Paragominas S.A. ( Paragominas ), and we have agreed upon transferring our interest in Paragominas to Hydro in two equal installments in 2014 and 2016. For more information on this transaction, see item 6.5 in this Reference Form.

Lastly, we have an onshore and offshore hydrocarbon exploration portfolio in Brazil and in Peru, which is currently under review, and, consequently, some concessions may be terminated or granted, provided that there is compliance with appropriate regulatory terms.

**e. Key consumables and raw materials:**

**i. Description of the relationships with suppliers, including whether they are subject to governmental control or regulation, identifying the institutions and applicable legislation**

We are committed to build a sustainable business model and contribute to a just, environmentally balanced and economically prosperous society. We adopt the strategy in relation to our suppliers to maintain a long-term relationship in order to promote partnerships aimed at gains for both parties, through continuous innovation and development and supply of goods and quality services at a compatible cost.

In order to achieve continuous improvement and contribute to advances in the production chain, the management of relationships with our suppliers comprises the following steps:

(i) Certification and registration of suppliers based on our values, taking into account also the identification and analysis of supply risks (environmental, institutional, labor, social security, financial, health and safety, ethics, and social responsibility);

(ii) *Third party Due Diligence*, process to run a search on third parties that have transactions with Vale, contributing to mitigate, without limitation, reputation risks, engagement with slavery work and other events that violate anticorruption laws applicable to Vale, as the *Foreign Corrupt Practices Act* - FCPA and the *UK Bribery Act* ;

(iii) periodic performance evaluations to ensure compliance with applicable requirements and as defined in the contracting stage, as well as adherence to agreement expectations;



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(iv) Development and support in suppliers' training; and

(v) Promotion and prospection of new suppliers.

Under the UN's Universal Declaration of Human Rights, we respect and promote human rights in our activities, through our production chain and in regions where we operate.

In this sense, we aim to establish commercial relationships with suppliers who share our principles and values and who respect human rights.

Our principles and values are disclosed to our suppliers in our Suppliers' Code of Ethics and Conduct, document signed by all the companies that have entered into a supply agreement with Vale.

All the suppliers are subject to a search in the list of companies disclosed at the website of the Ministry of Labor and Employment (MTE) that includes the name of employers found to be engaged in employing workers under slave work or analogous conditions, whether individuals or companies, and the list CEIS (National Registry of Suspected Companies) that lists companies with no good standing and suspended by the federal government.

The guidelines and criteria we adopt to evaluate our suppliers are based on the above mentioned environmental legal requirements applicable to suppliers whose operational processes involve the use of natural resources or are potentially polluting or likely to cause environmental degradation. In addition to these legal aspects, our Environmental Management criteria and the principles of our Sustainable Development Policy are considered.

With regard to recipients of waste generated in our production processes, they all are subject to audit by the Department of the Environment and Sustainable Development during their initial approval and periodic revalidation.

The main environmental laws applicable to this process are:

a) Environmental Permit

- Federal Law 6938/81 - National Environmental Policy

- CONAMA Resolution (National Council for the Environment) 237/97



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- Complementary Law 140/11
- CONAMA Resolution (National Council for the Environment) 01/86.
- Federal Law 10165/00
- Federal Law 12651/12
- IBAMA (Brazilian Institute of Renewable Natural Resources) Normative Instructions 96/06 and 97/06.

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b) Pesticides

- Federal Law 7802/99
- Federal Decree 4047/02
- Law 6360/76 - ANVISA - National Agency for Sanitary Surveillance

c) Transportation of Dangerous Goods

- Decree 96044/88
- ANTT Resolution (National Ground Transportation Agency) 420/02

d) Radioactive Material

- CNEN Resolution (National Nuclear Energy Council) NE 2.01
- CNEN Resolution (National Nuclear Energy Council) NE 5.02

e) Explosive Materials

- Federal Decree 3665/00

f) Controlled Chemicals

- Ministry of Justice Decree 1274/2003.

**ii. Potential dependence on few suppliers**

The main consumables purchased by us in fiscal year ending on December 31, 2013 were: (i) materials and other equipment, including tires, conveyor belts, parts and components, mining equipment, railroad gear, industrial installations and maintenance workshops, which accounted for 16.3% of cost of goods sold (COGS) in the year, (ii) fuel and gas, which contributed 7.6% to COGS, and (iii) electricity with 3% of COGS. Moreover, the rendering of various services, such as operational services, maintenance of equipment and facilities, and transportation services represented 2.6% of COGS in the year ending on December 31, 2013.

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The main categories of equipment purchased by the Company were handling, transportation, and locomotive equipment, and infrastructure. Our largest group of suppliers of these types of equipment were CATERPILLAR, GE TRANSPORTATION, METSO, SANDVIK, AND LETOURNEAU, accounting jointly for 5% of total purchases of the Company in the year ending on December 31, 2013.

Fuel consumption is quite intense, especially in operations and transport of iron ore. Our main supplier of this consumable item is Petrobras Distribuidora, which accounted for approximately 87% of our purchase of fuels in the year ending on December 31, 2013.

In 2013, we used 59% of the electricity provided by self-production and the remaining portion was consumed through purchase of power in the market, which main suppliers were Cemig, Eletronorte, and Enertrade.

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Our 10 largest input, equipment and service providers represented 22% of our total purchases by December 31, 2013.

**iii. Possible volatility in their prices**

We have some contracts where prices are pegged to market indexes (parametric formulas) and therefore subject to these volatilities. Prices can also vary in relation to historical prices depending on offer versus demand in the market at the time of competition.

**7.4 Customers that accounted for more than 10% of total net revenues**

In 2013, no customers accounted for more than 10% of our net revenue.

**7.5 Relevant effects of state regulation on the Company's activities**

**a. Need for government authorization for the exercise of activities and long-standing relationship with the government to obtain such permits**

We are subject to a wide range of governmental regulations in all jurisdictions where we operate worldwide. The following discussion summarizes the regulations that have the most significant impact on our operations.

**Mining rights**

Mining and mining processing are subject to a very strict regulation. In order to conduct mining activities, we generally require some governmental and private permits, which differ in form depending on the jurisdiction but may include concessions, licenses, prospecting applications, permits, releases, authorizations or franchises (all of which we generically refer to below as concessions ). Some concessions have indefinite duration or duration linked to depletion of the reserve, but many have specific expiration dates, and may be renewable or not. The legal and regulatory regime governing concessions differs among jurisdictions or even locations, and there are considerable differences between applicable legal and regulatory regimes, depending on the jurisdiction. In many jurisdictions, mineral resources belong to the State and may only be extracted upon obtaining the appropriate federal government approval (see Regulation on mining activities ). In other jurisdictions, as Canada, a substantial part of our mining operations is conducted pursuant to mining rights or leases, often from government agencies.

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The table below summarizes our principal mining concessions and other similar rights. In addition to the concessions described below, we have exploration licenses covering 5.63 million hectares in Brazil (out of which, 4.32 million are already under application) and 10.6 million hectares in other countries.

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<b>Location</b>	<b>Concession or other right</b>	<b>Approximate area covered (in thousand hectares)</b>	<b>Expiration date</b>
Brazil	Exploration Concession	662,076	Undetermined
Canada	Exploration Concession (name varies according to the province)	279,977	2014-2034
Indonesia	Employment Agreement ( <i>Contract of Work</i> )(1)	190.510	2025
Australia	Exploration Concession ( <i>Mining concessions</i> )	19.209	2015-2041
New Caledonia	Exploration Concession ( <i>Mining concessions</i> )	21.269	2015-2051
Peru	Exploration Concession ( <i>Concesión de Exploración</i> )(2)	154,867	Undetermined
Argentina	Exploration Concession ( <i>Manifestación de Descubrimiento</i> )	161,628	Undetermined
Chile	Exploration Concession ( <i>Concesión de Explotación</i> )	64.697	Undetermined
Mozambique	Exploration Concession (Mining Concession) (3)	23.780	2032

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- (1) This may be extended for at least a 10-year period.
- (2) The above represents merely licenses with exploration concession.
- (3) Our mining concessions cover approximately 23,780 hectares. Land licenses granted by the Council of Ministries, required to explore and use our concession currently encompass 22,096 hectares.

Many concessions impose specific obligations on the concessionaire governing such matters as how operations are conducted and what investments are required. Our ability to maintain our mining rights depends on meeting these requirements, which often involve significant capital expenditures and high operating costs.

**Regulation of mining activities**

- *Brazil.* Mining activity in Brazil is currently ruled by the 1967 Brazilian Mining Code, which provides for different enjoyment regimes for mineral substances, which differ according to the mineral to be explored and the size of the Project to be developed. Currently, there are five mining enjoyment regimes, namely: Research Authorization, Concession, License Registry or Mining Licensing, Permission to Explore and monopoly. The Federal Government has sent to the National Congress in June 2013, the proposal for a new Brazilian Mining Code, which is under discussion. This proposal includes, among others, maintenance of the main rights on mining licenses existing until the date of promulgation, a review on royalties with a 4% limitation, new concessions for exploration for a period of up to 40 years (renewable for periods of up to 20 years) through bidding processes, and creation of a Mining Agency aiming to simplify the process to grant mining rights.
- *Indonesia.* a mining law became effective in Indonesia in 2009, introducing a new licensing regime (*Ijin Usaha Pertambangan*, or IUP) and requiring some adjustments and final replacement of current mining agreements with the government of Indonesia. Deployment of the regulations has been gradually issued by the government, and we expect new regulations to be issued, in 2014. Asia-Pacific PT Vale Indonesia Tbk ( PTVI ) currently holds no IUP licenses. In September 2012, PTVI started to renegotiate the Contract of Work, as determined by the 2009 mining law. The government of Indonesia intends to adjust the area size and concession size, the term and the amendment means of the agreement and financial obligations (royalties and fees), sale conditions, and seek to introduce internal processing and refining requirements, as well as property requirements, to allow the use of internal services and products. PTVI presented its position on each of these aspects, and the negotiation conclusion is expected to the first half in 2014.
- *New Caledonia.* A mining law was passed in New Caledonia in March 2009 which states that for new mining projects, formal authorization is required, rather than a simple declaration. We filed a new license

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application in March 2014. Under the terms of said law, government entities may take up to three years to issue the authorization, however we have an expectation to receive it in the next twelve months. Our current license will remain valid and in force until the application is approved. Although we believe it is unlikely that the authorization application will be rejected, the governmental entities may impose new conditions regarding the authorization. Additionally, local authorities of New Caledonia proposed the creation of a protected tropical zone covering 27% of the total area of VNC, with potential to affect mining activities. The protected tropical zone proposed also matches the area of the next facility to store disposals, which could raise the need of additional investments by Vale.

- *Guinea.* Vale acquired with BSG Resources Ltd. (BSGR), on April 30, 2010 51% interest in BSG Resources (Guinea) Ltd., today known as VBG - Vale BSGR Limited ( VBG ), that held at the time iron ore concessions in South Simandou (Zogota) and exploration licenses in North Simandou (Blocks 1 & 2), at the Republic of Guinea. In April 2014, the Republic of Guinea revoked the mining rights for the Simandou and Zogota concession areas held by VBG. The decision made by the government of Guinea is based on the fraudulent behavior related to the acquisition of minority stakes and refers to a Technical Commission to Review Mining Agreements and Titles ( Technical Committee ), concluding that mining concessions were contaminated by corruption acts by BSGR. The Technical Committee did not find any engagement by Vale in fraudulent practices related to the acquisition of mining rights, that occurred more than one year before Vale made any investment in VBG, and recommended that the government of Guinea should adopt measures to exclude VBG and BSGR, as well as BSGR affiliates, from any mining rights relocation process. However, the Committee has not suggested prohibitions in case Vale was party in such proceedings. Vale acquired its interest in VBG following comprehensive *due diligence* carried out by expert personnel and based on representations and guaranties that BSGR had acquired all mining rights legally and with no undue or corrupt promise or payment. Vale severely condemns the use of corruption practices, reiterates its commitment with transparent corporate governance and is considering its legal rights and options.

- *Mozambique.* The government submitted to the Congress, in Mozambique, a mining bill in December 2012. Changes expected include introduction of national acquisition prevalence, submitting transfers of mining rights and shareholding interest to local legislation and governmental approval, requiring foreign companies to make partnerships with local service providers and reduce terms for exploration activities. Additionally, a regulation for reoccupations, issued in June 2012, contains stricter requirements that may cause increase in costs and delays to deploy our projects. Additionally, the Government of Mozambique approved a new regulation for explosives, in effect since



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August 2013, that may cause significant increases in the cost of importing important explosives for mining activities in Tete. Upon being aware of concerns of different companies in the extraction segment, the Government analyses the possibility of diminishing taxes related to importing costs, but, to this date, it has not yet commented if and when these changes should be deployed.

**Environmental regulations**

We are subject to environmental regulations that apply to the specific types of mining and processing activities we conduct. We require approvals, licenses, permits or authorizations from governmental authorities to operate, and in most jurisdictions the development of new facilities requires submission of environmental impact statements for approval and often to make investments to mitigate environmental impacts. We must also operate our facilities in compliance with the terms of the approvals, licenses, permits, or authorizations.

We are adopting measures to improve effectiveness of the licensing process, including better integration between environmental and project development teams, the deployment of the Best Practices Guide for Environmental Licensing, deployment of highly qualified expert teams, better integration with environmental regulators and the creation of an Executive Committee to issue license-related internal decisions.

Environmental regulations affecting company operations relate, among other matters, to emissions into the air, soil and water; recycling and waste management; protection and preservation of forests, coastlines, cavities, watersheds and other features of the ecosystem; water use, climate change and decommissioning and reclamation.

*Legislation on protected areas*

Forest damage or destruction or damage or destruction of other kinds of natural vegetation in a Permanent Protection Area ( APP ), defined under the terms in Federal Law 12.651/12, without authorization by the competent entity or in non-compliance with the authorization, causes the violator to be subject to a fine that varies from R\$5,000.00 to R\$50,000.00 per hectare or fraction, according to Federal Decree 6.514/08. Additionally, removal of trees from an APP may cause the violator to be subject to fines that vary from R\$5,000.00 to R\$20,000.00, as well as compelling the owner or holder of the area to promote recomposition of the vegetation. Competent authorities may also suspend or demolish the work, after evaluating the seriousness of the circumstances.

Federal Law 12.651/12 also sets forth the obligation of owners or holders of rural properties to maintain the Legal Reserve area duly protected, area which should correspond to 20% of the total area of a rural property, except in the Legal Amazonian area, where the percentage equals to 80% in forest areas and 35% in cerrado areas. Recently, the Rural Environmental Registry was set up

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where Legal Reserve areas must be registered before the local, state, or federal entity.

Conservation Units ( UCs ), in turn, are established in Federal Law 9.885/00, and any interference in the limitations may occur only under the terms in the legal instrument that created the UC area and the respective management plans. Furthermore, any interference in environmentally protected areas requires prior authorization by entities responsible for its management. The lack of approval by the managing body and non-compliance with rules set forth in the management plan characterize administrative infringement subject to penalty of, respectively, R\$500.00 to R\$10,000,000.00 and R\$500.00 to R\$10,000.00, /without prejudice to other sanctions as, for instance, suspension and interdiction of activities.

*Pollution/contamination rules*

Separation, collection, storage, transportation, treatment, and final disposal of residues are regulated by Brazilian legislation, which also provides that the parties outsourcing these activities are jointly responsible with the outsourcers. Administrative sanctions applicable to any inappropriate disposal, whether or not it results in pollution, include, among others, suspension of the activity or work, and fines of up to R\$50,000,000.00.

Inappropriate disposal of solid residues produced by Company activities, as well as accidents resulting of transportation of such residues, may cause ground and underground water contamination and give rise to the obligation to recover such areas and compensate, in the civil sphere, additionally to administrative and criminal sanctions.

Appropriate transportation, treatment, and final disposal of residues are subject to prior approval by the competent environmental entity. Residue treatment activities, especially, are subject to licensing.

The holder of a contaminated property must automatically repair any environmental damage or adverse impact, regardless of the contamination cause, which may cause significant expenses. Note that the responsibility for an environmental damage is not subject to the statute of limitations, that is, it never matures over time.

*Cavities*

Natural underground cavities, popularly known as caverns, represent fragile ecosystems that comprise the national speleological assets. Intervention in natural underground cavities can only occur as provided for in Federal Decree 6.640/2008, which amended the text in Federal Decree 99.556/1990, which provides for the possibility of irreversible impacts, according to the degree of relevance of the cavity. Normative Instruction 2/2009 from the Ministry of Environment regulated Federal Decree 99.556/1990, establishing the



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methodology to be used in studies to classify the degree of relevance of the cavities. Compliance with said rules impose the need of carrying out broad technical studies and complex discussions with environmental regulatory agencies in Brazil, regarding this issue. The occurrence of natural underground cavities may interfere in the schedule, plan, or Project assessment and, thus, we may be forced to limit or alter our mining plans, or incur on additional costs to preserve the cavities or compensate the impact on them, which may affect our production volumes, costs or mineral reserves, as applicable.

*Archeological sites and historical and cultural interest areas*

The Federal Constitution provides that the government and the civil society are responsible for protecting the cultural heritage. In areas with the potential of having archeological sites and historic and cultural interest areas, the Company must obtain the appropriate authorization from the National Institute of Historical and Artistic Heritage (IPHAN) prior to beginning its work. Non-authorized interference on cultural, historical, and archeological areas is considered to be an administrative infringement, subject to suspension and fines of R\$10,000.00 to R\$100,000.00.

*Hydric resources*

The Company must obtain the rights to use hydric resources and should pay for the rights to use. According to the National Policy of Hydric Resources, the following rights on the following uses of hydric resources are subject to the grant by the Public Authority: (1) derivation or capture of portion of water existing in a water body for final consumption; (2) extraction of water from underground water reserve for final consumption or as input of productive process; (3) release of sewage in water bodies, as well as other liquid or gas residue, whether or not treated, for purposes of diluting, transporting, or final disposition of them; (4) use of hydroelectric potential, and (5) other uses that alter the regime, the quantity, and quality of the water existing in a water body.

*Carbon emissions and climate change*

Climate changes may adversely affect technical requirements of Company projects, the way it uses its equipment and the way it provides its services, adversely affecting the schedule of Company projects and increasing their costs.

*Environmental Liability*

Environmental liability may occur in three different and independent spheres: (i) civil; (ii) administrative and (iii) criminal.

- *Civil Liability:* the entrepreneur, regardless of the existence of guilt, must compensate or repair damages caused to the environment and third



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parties affected by its activities. Additionally, the environmental legislation sets forth the joint responsibility between polluting agents (Federal Law 6.938/81). Therefore, should outsources failure to perform their activities according to environmental rules, the Company is responsible for environmental damages with the outsourcer.

- *Administrative Responsibility:* Administrative responsibility arises out of an action or omission those results in violation against any rule related to environmental protection, regardless of guilt or effective occurrence of environmental damage (Federal Decree 6.514/08). Sanctions against an administrative infraction may include warning, fine, non-use of product, suspension of sale and manufacturing of product, suspension of work or activity, demolition of work, suspension of tax benefits and cancellation or interruption of credit facilities granted by state banks, as well as prohibition to be hired by public entities.
- *Criminal Responsibility:* In the criminal sphere, Federal Law 9.605/98 (Environmental Crime Law) causes any person, individual or legal entity engaged in conducts deemed to be damaging to the environment to be subject to its effects. The Law also provides for the possibility of piercing the corporate veil of the entity causing the environmental infringement in some cases. Applicable sanctions to legal entities may be (i) partial or total suspension of the activity; (ii) temporary interdiction of establishment, work, or activity; and, (iii) prohibition of contracting with Public Authorities, as well as obtain subsidies, subventions, or donations.

Environmental legislation is becoming stricter worldwide, which could lead to greater costs for environmental compliance. In particular, there is expectation for heightened attention from various governments to reducing greenhouse gases, as result of concerns with climate changes. There are several examples of environmental regulations and compliance initiatives that may affect our operations. In Canada and in Indonesia, we are currently making capital investments to ensure compliance with regulations on gas emissions that include, without limitation, sulfur dioxide, particle s and metals. In Australia, we started to obtain authorizations from the federal government in June 2013, in the scope of carbon prices regime. This regime may be revoked by the new federal government (elected in 2013) and replaced by a new carbon reduction plan. Details and the schedule to deploy the new regime has not yet been determined.

Additionally, the new proposal of law, in the South Province in New Caledonia, will impose more rigid limits to emissions of nitrogen and sulphur oxide and particles from large electric burning plants, which shall affect the power station that provides power to VNC. To meet these new standards, this 100MW power station will need to be updated, which should increase the price of power paid by VNC.

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Additionally, in Canada, more rigid regulations for water effluents are proposed, which may affect our operations. In the United Kingdom, a recent regulatory change on effluents was issued, causing significant increase of disposal costs and compliance with other environmental requirements at our facilities in Clydach.

**Royalties and other taxes on mining activities**

In many jurisdictions, we must pay royalties or fees on our revenues or profits from extraction and sale of minerals. These payments are an important element in the economic development of a mining operation. The following royalties and fees apply in some of the jurisdictions in which we have our largest operations:

- Brazil. In Brazil, we pay a royalty known as the CFEM (Compensação Financeira pela Exploração de Recursos Minerais or Financial Compensation for Exploration of Mineral Resources) on the revenues from the sale of minerals we extract, net of taxes, insurance costs and costs of transportation. The current annual CFEM rates on Company products are: 2% for iron ore, copper, nickel, fertilizers and other materials; 3% on bauxite, potash and manganese ore; and 1% on gold. The Brazilian government is considering proposing changes in the CFEM regime. Any change should be incorporated into the final proposal by DNPM, and should be subject to the approval of the Brazilian National Congress. We are currently engaged in several administrative and legal proceedings that relate to the non-payment of amounts due as CFEM. See item 4.3 in this Reference Form for further information.
- Brazilian States. Four Brazilian states created a mining production tax (Taxa de Fiscalização de Recursos Minerais [Mining Resources Supervision Tax] TFRM) with rates that vary between R\$ 0.50 to R\$ 2.5697 per metric ton of ore produced or transferred out of the state.
- Canada. The Canadian provinces in which we operate charge us a tax on profit from mining operations. Profit from mining operations is generally determined by reference to gross revenue from the sale of products of mine output and deducting certain costs, such as mining and processing costs and investment in processing assets. The rates are 10% in Ontario; up to 17% in Manitoba; and a combination of mining fee and royalties equal to 16% in Newfoundland and Labrador. The mining fee paid is deductible for corporate income tax purposes.

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- Indonesia. Our subsidiary PTVI pays royalties on, without limitation, nickel production on the concession area. The payment of royalties was based on sales volume (US\$78 per metric ton of nickel in matte, and US\$ 140 per metric ton for total production below 500 tons and US\$ 156 per metric ton for total production above 500 tons of contained cobalt, above or below 500 tons, respectively). In 2013, the payment of royalties corresponded to 0.68% of the revenue from the sale of matte nickel, while the annual average of royalties paid for the 2010-2013 period corresponded to 0.63% of the revenue from the sale of matte nickel, including the payment of additional royalties in 2011 for the production above 160 million pounds in 2010. As part of the renegotiation of our mining agreement, as required under the new mining legislation, the Indonesian Government seeks to review the royalty regime which we are subject to.
- Australia. In Australia, royalties are paid on the revenues from sales of minerals. In the state of Queensland, royalty applicable to coal is 7% of the net income (deducting freight costs and other costs) up to A\$100 per ton and 12.5% of the amount between A\$100 and A\$150 per ton and 15% subsequently. In the state of New South Wales, the royalty applicable to coal is the percentage on the total production or total revenue (which is net of some expenses and fees) minus permitted deductions, equal to 6.2% for deep underground mines, 7.2% for underground mines, and 8.2% for open pit mines. There is also an additional 1.95% royalty (for coal recovered between December 1, 2012 and June 30, 2013) and 1% (for coal recovered after July 1, 2013) from the value of recovered coal. In 2012, the Australian government introduced a new mineral resource rent tax operations, MRRT. The MRRT will be applied on the profits generated from the exploration of coal and iron ore resources in Australia, with effective fee of 22.5% of the taxable profits and may be deductible from the Company income tax. Different from state royalties which are based on resource volume and value, MRRT is based on profits. However, companies may compensate state royalties with MRRT. For the year ending on December 31, 2013, Vale Australia did not have to pay any MRRT.
- Mozambique. In September 2013, the Government proposed a new tax regime for the mining and oil sectors. Regarding the mining tax regime, the proposals includes concepts and requirements that may affect mining projects in Mozambique, including, without limitation, new rules to calculate *royalties*, tax increase iron ore production, separate accounting for each mining license, and others. The new proposal is not clear regarding stabilization and guarantee for mining agreements signed before the new tax regime.



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**Regulation of other activities**

In addition to mining and environmental regulation, we are subject to comprehensive regulatory regimes for some of our other activities, including rail transport, port operations, and electricity generation. We are also subject to workers' health and safety legislation, safety and support of communities near mines, and other matters. Descriptions below relate to some regulatory regimes applicable to our operations:

- **Brazilian railroad regulation.** Our railroad business in Brazil operates pursuant to concession contracts granted by the federal government and our concession contracts are subject to the regulation and supervision by the Brazilian Ministry of Transport and the National Agency of Land Transportation (Agência Nacional de Transportes Terrestres), or ANTT. Our concession contracts are effective for 30 years and may be renewed at discretion of the federal government. The FCA and MRS concessions expire in 2026, and the concessions for EFC and EFVM expire in 2027. VLI also owns the sub concession for commercial operation of a 720-kilometer segment of the FNS railroad, in Brazil, that expires in 2037. Actual prices we ask may be negotiated directly with users of such services, subject to maximum fee limits approved by ANTT for each of the concessionaires each of different products that are transported. ANTT regulations also require concessionaires to grant trackage rights to other concessionaires, make investments in the railroads, meet specific productivity requirements, and other obligations.
- **Regulation of Brazilian ports.** Port operations in Brazil are subject to the regulation and supervision of the ANTAQ, the national agency responsible for maritime transportation, and the Port Special Secretary of the Federal Government (SEP). In June 2013, a new law was issued with a new set of rules for existing projects and terminals. The law eliminated restrictions to the maintenance of unrelated party cargo movement and allowed the engagement of ANTAQ to determine access to unrelated parties to private terminals. In 2014, private terminals will enter into new agreements with SEP to adjust the terms to the new regime.
- **Regulation of chemical products.** Some of our products are subject to regulations applicable to the marketing, distribution and use of chemicals in their compositions. For example, the European Commission has adopted a European Chemicals Policy, known as REACH (Registration, Evaluation, and Authorization of Chemicals). Under REACH, manufacturers and importers are required to register substances prior to their entry into the European market and in some cases may be subject to an authorization process. A company that fails to comply with the REACH regulation could face fines and penalties.
- **Regulation in Transoceanic transportation of iron ore and iron ore fines.** The International Maritime Organization prepared changes to existing rules that govern safe product transportation, including iron ore.

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**b. Environmental policy of the Company and costs incurred for compliance with environmental regulation and, where appropriate, other environmental practices, including adherence to international standards of environmental protection**

Vale's Environmental Management System determines the development and implementation of effective control, monitoring, conservation, environmental protection and rehabilitation, aimed at ensuring the minimization of the environmental impacts on the ecosystems in which it operates. Our system is based on ISO 14001 (*International Organization for Standardization*) guidelines, to which it adds additional requirements that make up our standard of environmental quality, which, in some cases, establish additional requirements to the list of legal requirements. Aiming to assess the management and ensure the development of performance, we submit the operations, periodically, to internal and external audits.

Listed below are our units with ISO 14001:

- Iron ore and pellets (all iron ore mines (except São Luis), and the Tubarão and Fábrica);
- Manganese and ferroalloys (Simões Filho, Conselheiro Lafaiete, Ouro Preto and Barbacena);
- Nickel (Matsusaka, Vale Tawaian, Vale DALIAN, Vale KNC, Clydach, Acton );
- Logistics: Port of Tubarão and Vitória Minas railway; Copper (Sossego mine).
- Fertilizers (Cubatão, Piaçaguera, Uberaba, Tapira, Catalão and Araxá)

In the last three years, US\$312.6 million was invested in environmental management actions; these actions were focused on compliance with regulations or other environmental practices.

As a mining company, the control of air emissions is one of our main goals. Our atmospheric pollution control systems and equipment include: a water aspersion system for unpaved roads, as well as the use of chemical substances to control dust, filters and electrostatic precipitators complemented by integrated monitoring systems and control software. These systems make it possible to comply with the legal requirements and to provide continual evaluation of the air quality of our facilities and surrounding communities. The results of the monitoring are inputs for the definition of the necessary investments to improve air quality. For more details, see our 2013 Sustainability Report, in the chapter Territory .

Another relevant aspect of the Environmental Management System is the rational use and quality of the water resources where we have control systems for the effluents generated, as well as programs and development of technologies for continual reduction of consumption and/or re-use. For more details, see our 2013 Sustainability Report, in the chapter Water .



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The waste management program is another initiative that prioritizes minimization of generation, as well as re-use and recycling procedures, as well as adequate disposal practices. For more details, see our 2013 Sustainability Report, in the chapter Territory .

The orientation for decommissioning of assets include practices and procedures implemented over the project life cycle. These procedures aligns with the guidelines of the *Comissão de Valores Mobiliários* - CVM and the Securities Exchange Commission - SEC (IAS 37) for the annual estimates of asset demobilization costs and provisioning of resources for future deactivation and recovery of the area. The definition of future use of each unit is established in the Closing Plan, considering environmental, social and economic aspects, according to the specific operational procedure, noting that the Sustainability Report reflects the percentage of compliance with these guidelines. For more details, see our 2013 Sustainability Report, in the chapter Territory .

In regards to risk management, the tailings dams represent one of the most relevant aspects, and are submitted to periodic safety audits, as well as to monitoring practices to evaluate geotechnical stability. For more details, see our 2013 Sustainability Report, in the chapter Territory .

Our environmental program also includes management of recovery of degraded areas (RAD) in the territories where the Company has activities, whether or not these areas were degraded by operational activities. RAD management also covers the preparation of restoration projects aimed at protection of water resources, harmonization of scenery, geotechnical stability, increasing, gene flow and the well-being of human populations. We have partnerships with universities, institutions and governmental research agencies to optimize methods of protecting the ecosystem.

Vale is responsible for management of several territories, including areas of high cultural value and high relevance for biodiversity. In all the stages of our projects, we develop and support actions that encourage the conservation and sustainable use of natural resources through the adoption of good practices to mitigate negative impacts and promote positive impacts in the locations where we act.

In this regard, the Company adopts a policy of not developing some land, for example, land that makes up the World Natural Heritage Sites. For the conservation of biodiversity and ecosystem services, Vale contributes to the maintenance of protected natural areas, whether its own or in partnership with local governments, intended for conservation, also contributing to the sustainable use of biodiversity and of ecosystem services and promotion of engagement with communities, scientific institutions, governments and other relevant actors.

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In order to build a positive legacy, in the past 25 years, Vale has offered support to indigenous communities in education, health, infrastructure development and technical assistance to improve the quality of life and self-sufficiency of these communities.

**c. Reliance on patents, trademarks, licenses, concessions, franchises, contracts, royalties for the development of relevant activities.**

We operate mines, railways, ports, marine terminals and power plants, in general, through concessions granted by federal and state governments in several countries. Accordingly, we depend greatly on the concession of operating licenses for such assets for the development of our activities. For more information on our permits and concessions, see item 9.1 b of this form.

Additionally, our intangible assets portfolio, as a whole, generates added value for our operating units in different aspects, whether by the commercial side, which includes technology transfer, open innovation, and economic exploration, whether as unique competitiveness tool, as it creates technological barriers to competitors, or even as instrument to increase productivity and/or reduce personal and environmental risks, as patents related to employee health and security in strategic areas. Among our intangible assets, we consider our registrations for the brand VALE as the most relevant ones for our activities which, with other assets, offer direct technical and financial benefits for our activities in different production fronts.

**7.6 Relevant revenue from abroad**

**Fiscal year ending on December 31, 2012**

<b>Revenue from customers attributed to:</b>	<b>Revenue (R\$ thousands)</b>	<b>% In total income</b>
China	41,277,038	40.67.
Japan	8,853,343	8.72.
United States	2,822,907	2.78.
Germany	7,103,636	7.00.
Canada	2,242,116	2.20.
South Korea	3,896,964	3.83.
Taiwan	2,103,268	2.07.
England	2,184,480	2.15.
France	2,105,492	2.07.
Belgium	695,776	0.68.
Other countries	14,909,303	14.69.
<b>Total income from abroad</b>	<b>88,194,323</b>	<b>86.90.</b>
<b>Brazil</b>	<b>13,295,424</b>	<b>13.10.</b>
<b>Total income</b>	<b>101,489,747</b>	<b>100.00.</b>

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**7.7 Effects of foreign regulations on activities**

For information on the effects of foreign regulations on our activities see item 7.5 in this Reference Form.

**7.8 Relevant long-term relationships**

**Sustainability**

The Company, with the support by its Board of Directors, reaffirms in the document available at <http://www.vale.com>>Sobre a Vale>Relatório de Sustentabilidade, its commitment with the United Nations Global Pact and reports, in such document, the progress in the deployment of its principles, as well as those set forth by the International Council of Mining and Metals (ICMM).

The focus of Company investments is the development of world-class assets, with long use life, low cost, high-quality production, employing state of the art technology and expansion capacity, taking into account value generation linked to commitments assumed with people at different sites where the Company acts and with the planet.

For the Company, sustainable development also means capturing countless growth opportunities, acknowledging physical limits of the planet.

The sustainability agenda has a central role in the strategic planning process of the Company. In order to progress in Company's sustainability management, we have established global policies as the Sustainable Development Policy, the Human Rights Policy, and the Health and Security Policy. Additionally, Vale (i) maintains the Sustainability Action Plan (PAS), which indicators are related to issues that aim continuous improvements of company assets regarding sustainability aspects; (ii) defined eight priority areas, including reduction of emissions, use of land and biodiversity, water, residues and local development, and (iii) is committed to promoting the sustainability agenda with its vendors and clients and to acting to promote the sustainable development in partnership with governments and the society.

In 2013, Vale was selected, for the third consecutive year, to be part of the BM&F Bovespa ISE Corporate Sustainability Index and also continued to be part of the ICO2 Efficient Carbon Index.

The Company is part of the group of companies of the United Nations Lead Global Pact and is committed with the promotion of its principles, in issues related to human rights, labor rights, fight against corruption, and environment protection. The Company is also member of the ICMM Council, which provides an important exchange aiming continuous improvement of sustainability in our activity sector.



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The Company obtained the best grade, regarding quality in transparency related to the disclosure of information on climate changes, among Latin American companies member of the Global 500 that respond to the CDP questionnaire.

In issues as sustainability practices, Vale continued to deploy measures to reduce the incurrence of accidents in 2013. In Brazil, the Lost Work Case Frequency Rate (LWCFR), measured in number of accidents with lost work per million hours worked, was 0.60. The Total Recordable Injury Frequency Rate (TRIFR), in number of accidents per million man/hours worked was 2.02, decreasing 4.7% compared to the year before. Global indicators reflect, likewise, progress in our goals, with a 1.4% reduction in LWCFR, reaching 0.69 in 2013, and 7.7% reduction in TRIFR compared to 2012, totaling 2.6 in 2013. Additionally, Vale invested US\$ 4.1 billion in the period 2010-2013 in social environmental liability.

**Sponsorship and Social Activity Policy**

The Company has a global sponsorship policy for projects that contemplates the following foundations:

- **Cultural:** the Company acknowledges in culture a genuine form to express life in society, rich in its ability to reveal histories, values, expressions, and costumes. Furthermore, the Company believes that cultural diversity is an essential asset to be protected. Based on this view, the company looks for projects that acknowledge, value, protect, and promote material and non-material cultural assets, especially music.
- **Technical Institutional:** the Company supports projects and partnerships that contribute to the theoretical and practical evolution of knowledge aiming sectors the company Works with, whether directly connected to its business and other areas of institutional interest or areas related to its mission.

Additionally, the Company follows a specific policy for social actions in the Brazilian territory, that sets forth base rules for this investment and defines as priority areas health, education, and job and income generation, although the rules also apply, similarly, to the cultural area, including cultural equipment management.



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**7.9 Other relevant information**

**MP 627**

On November 12, 2013, the Provisional Order no. 627 ( MP 627 ) was issued, significantly altering the federal tax legislation in effect, broadly affecting taxation in Brazilian companies. Issues addressed by MP 627, include:

- extinction of the Transitory Tax Regime ( RTT ), by adapting tax rules in effect to new accounting rules in effect in Brazil. In general, MP 627 regulated the tax treatment applicable to revenue, costs, expenses, and equity changes recognized by Brazilian companies according to new accounting criteria adopted in Brazil, which are the result of the process of convergence between accounting rules then in effect in Brazil to international standards (IFRS).
- changes to the rules of tax amortization for impairment paid in the acquisition of corporate interest. Among different new rules related to impairment in the acquisition of interest, MP 627 determined that the only impairment entitled to be deducted from the IRPJ and CSLL calculation base is impairment generated between independent parts, and deduction of impairment generated between companies of the same group or by the exchange of shares (between the respective issuers), is no longer accepted. Additionally, MP 627 established the order in which the PPA (purchase price allocation) will appear in acquisitions and corporate reorganizations.
- new concept of gross income, for purposes of incurrence of PIS and COFINS. MP 627 has also broadened the concept of gross income, which may impact calculation of PIS and COFINS, incurring on the gross income of corporations.
- treatment given to dividends and interest on own capital ( JCP ). MP 627 recognized exemption of profits or dividends distributed by November 12, 2013, date when MP 627 was published, exceeding the profit calculated based on accounting criteria in effect in 2007. To calculate the JCP deductible limit, MP 627 authorized the use of the net equity value of the respective Brazilian company, as calculated based on the terms in Law 6.404/76. According to the terms in MP 627, these rules can only be used by taxpayers who choose to apply MP 627 rules starting in 2014.
- new taxation rules on profits abroad. Among the new rules for taxation on profits abroad, MP 627 created the possibility, upon compliance with some requirements, entitling Brazilian companies to differ the payment of IRPJ and CSLL due on profit determined by the respective affiliates abroad, in the respective proportion as the corporate interest, within up to five years, from the moment when such profit is determined abroad.

New rules in MP 627 come into effect on January 1, 2015, and adoption is optional starting on January 1, 2014. However, being a provisional order, MP



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627 is effective for 60 days, and may be extended for another 60 days, period when the National Congress should approve its conversion into law. Since the publication date, several amendment proposals were suggested for MP 627, which shall be analyzed by the National Congress while it is in effect.

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**8.1 -Description of the Economic Group**

**a. direct and indirect controllers**

Valepar S.A. is a holding company that has direct control of Vale, with a participation, on December 31, 2013, of 32.4% of the Company's capital stock. Valepar is controlled by: (i) Litel Participações S.A., a holding company (51.30%); (ii) Bradespar S.A., a holding company (17.28%); (iii) Mitsui & Co., Ltd, a trading company (15.26%); (iv) BNDES Participações S.A., a holding company (9.83%); and (v) Eletron S.A., a holding company (0.02%).

Litel Participações S.A. is a holding company controlled by BB Carteira Ativa (79.31%), an investment fund, administered by BB Gestão de Recursos Distribuidora de Títulos e Valores Mobiliários S.A., whose shares are 100% owned by Previ Caixa de Previdência dos Funcionários do Banco do Brasil (Previ). Previ is a closed, private pension fund and its participants are employees of the Banco do Brasil and of Previ itself. Previ management is divided between the Advisory Board and the Board of Directors. The Board of Directors is composed of six members: President, Director of Administration, and Directors for Investments, Social Security, Share Participation, and Planning. The Advisory Board is composed of six members and their substitutes. Three are elected by the participants and users of the pension fund, and three others are indicated by the Banco do Brasil. According to the Charter of Previ, the Advisory Board is the highest body of the organizational structure of Previ and responsible for defining the general policy for the administration of the entity.

Bradespar S.A. is a holding company controlled by: (i) Cidade de Deus Companhia Comercial de Participações S.A., a holding company (12.93%); (ii) NCF Participações S.A., a holding company (9.33%); and (iv) [sic] Fundação Bradesco, a non-profit entity with the objective of providing education and professional training for children, youths, and adults (5.20%). The Cidade de Deus Companhia Comercial de Participações S.A. is controlled by: Nova Cidade de Deus Participações S.A., a holding company (44.91%); Fundação Bradesco (33.20%), and Mmes. Lina Maria Aguiar (8.51%) and Lia Maria Aguiar (7.01%). NCF Participações S.A. is controlled by: Fundação Bradesco (60.41%); Cidade de Deus Companhia Comercial de Participações S.A. (39.51%); and Nova Cidade de Deus Participações S.A. (0.08%). Nova Cidade de Deus Participações S.A. is controlled by Fundação Bradesco (73.93%) and BBD Participações S.A. (26.07%). BBD Participações S.A. has its capital dispersed among multiple shareholders, and NCD Participações S.A. is the largest of them, with 21.64% of the total share capital. In accordance with the terms of the Statute of the Fundação Bradesco, all directors, members of the Board of Directors and directors of Bradespar department, as well as all directors and leaders of Cidade de Deus Companhia Comercial de Participações S.A., act as members of Fundação Bradesco highest decision-making body, known as the *Mesa Regedora*.

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Mitsui & Co., Ltd is a trading company, headquartered in Japan, which has its capital spread among many shareholders, but whose largest shareholders are the following Japanese banks: (i) the Master Trust Bank of Japan, Ltd. (trust account) with 8.22% of the share capital; and (ii) Japan Trustee Services Bank, Ltd. (trust account) with 5.87% of the share capital.

BNDES Participações S.A. is a holding company 100% owned by Banco Nacional de Desenvolvimento Econômico e Social (BNDES). BNDES is a public company endowed with legal personality under private law, whose shares are 100% owned by the Federal Government.

Eletron S.A. is a holding company controlled by Opportunity Anafi Participações S.A. (99.99%), a holding company controlled by Belapart S.A. (21.73%), Opportunity Holding FIP (56.54%), and Valetron S.A. (21.73%). Belapart S.A. and Valetron S.A. [sic] are corporate holding companies controlled by Ms. Verônica Valente Dantas, who owns 52.56% of the total share capital of each of the above-mentioned companies. Opportunity Holding FIP is an equity investment fund with the Fund Manager, Mr. Marco Nascimento Ferreira, responsible for its investment decisions.

**b. subsidiaries and affiliates**

**c. participation of the Company in companies of the group**

On December 31, 2013, Vale controls or holds relevant participation, under the corporate law in force and according to the case, in the following companies (for a detailed description of the subsidiaries and affiliates of the Company which carry out relevant activities for the business of Vale, see Item 9 of this Reference Form):

Aços Laminados do Pará S.A.

ACW Power Moatize Limited

Aegis Indemnity Ltd.

Aliança Geração de Energia S.A.

Aliança Norte Energia Participações S.A.

Associação Brasileira dos Investidores em Auto Produção de Energia ABIAPE

Associação de Terminais Portuários Privados - ATP

Anyang Yu Vale Yongtong Pellet Co., Ltd.

Associação Instituto Tecnológico Vale - ITV

Associação Itakyra

Associação Memorial Minas Gerais Vale

Associação Museu Ferroviário Vale do Rio Doce - AMFVRD

Associação Vale para Desenvolvimento Sustentável - Fundo Vale

Australian Coal Inter Holdings (NL) I B.V.

Balderton Trading Corporate

Baovale Mineração S.A.

Belcoal Pty Ltd

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Belvedere Australia (BP) PTY Ltd

Belvedere Coal Management Pty Ltd. (ACN 112 868 461)

Belvedere JV (Unincorporate)

Biopalma da Amazônia S.A. - Reflorestamento Indústria e Comércio

Bowen Central Coal JV (Unincorporate)

Bowen Central Coal Pty Limited - (ACN107 198 676)

Bowen Central Coal Sales Pty Limited - (ACN 107 201 230)

Broadlea Coal Management Pty Limited - (ACN 104 885 994)

Broadlea JV (Unincorporate)

Caemi Holdings GmbH

California Steel Industries, Inc.

Camberwell Coal Pty Limited - (ACN 003 825 018)

Canico Resources Corp.

Carborough Downs Coal Management Pty Ltd. - (ACN 108 803 461)

Carborough Downs Coal Sales Pty Ltd. - (ACN 108 803 470)

Carborough Downs JV (Unincorporate)

Central Eólica Garrote Ltda.

Central Eólica Santo Inácio III Ltda.

Central Eólica Santo Inácio IV Ltda.

Central Eólica São Raimundo Ltda.

Charlotte, Ltd

Charlotte Unit Trust

CI Vale Colombia SAS

CMM Overseas Limited

Compagnie Minière Trois Rivières - CMTR

Companhia Coreano-Brasileira de Pelotização - KOBRASCO

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Companhia Ferro-Ligas do Amapá S.A. - CFA

Companhia Hispano-Brasileira de Pelotização - HISPANOBRAS

Companhia Italo-Brasileira de Pelotização - ITABRASCO

Companhia Nipo-Brasileira de Pelotização - NIBRASCO

Companhia Paulista de Ferro-Ligas - CPFL

Companhia Portuária Baía de Sepetiba - CPBS

Companhia Siderúrgica Ubu

Companhia Usina Tecpar

Compañía Minera Andino-Brasileira Ltda - CMAB

Compañía Minera Miski Mayo S.Ac.

Consórcio AHEFunil

Consórcio AHE Porto Estrela

Consórcio BM-ES-22-A

Consórcio BM-ES-27

Consórcio BM-PAMA-10

Consórcio BM-PAMA-11

Consórcio BM-PAMA-12

Consórcio BM-S-48

Consórcio BT-PN-2

Consórcio BT-PN-3

Consórcio Candonga

Consórcio Capim Branco Energia - CCBE



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Consórcio da Hidrelétrica de Aimorés

Consórcio da Usina Hidrelétrica de Igarapava

Consórcio de Rebocadores da Baía de São Marcos - CRBSM

Consórcio de Rebocadores da Barra dos Coqueiros - CRBC

Consórcio Eólico Paraíso Azul - CEPAZ

Consórcio Eólico Paraíso Farol - CEPAF

Consórcio Estreito Energia - CESTE

Consórcio Gesai - Geração Santa Isabel

Consórcio Machadinho

Consórcio Railnet

Consórcio SF-T-81

Consórcio Tup Mearim - Graneis Sólidos

Copperbelt (B) Inc.

Corredor do Desenvolvimento do Norte SRL - CDN

Corredor Logístico Integrado de Nacala, S.A. - CLN

CPP Participações S.A.

CSP - Companhia Siderúrgica do Pecém

Cubatão Fertilizer B.V.

CVRD Venezuela S.A.

Docepar S.A.

Eagle Downs Coal Management PTY Ltd

Eastern Star Resources PTY Ltd - ESR

Ellensfield Coal Management Pty Ltd. - (ACN 123 542 754)

Empreendimentos Brasileiros de Mineração S.A. - EBM

Empresa de Mineração Curuá Ltda.

Epícares Empreendimentos e Participações Ltda.

Exide Group Incorporated

Ferrovias Centro-Atlântica S.A. - FCA

Ferrovias Norte Sul S.A

Ferteco Europa S.à.r.l

Fertilizantes Participações S.A

Florestas Rio Doce S.A

Fortlee Investments Limited

Fosbrasil S.A

Fundação Caemi de Previdência Social

Fundação Estação do Conhecimento Moçambique

Fundação Vale

Fundação Zoobotânica de Carajás

GEVALE Indústria Mineira Ltda.

Glennies Creek Coal Management Pty Ltd. - (ACN 097 768 093)

Glennies Creek JV (Unincorporate)

Globalore PTE Ltd

Goro Funding, LLC

GREMBER - Grêmio dos Empregados da MBR

Henan Longyu Energy Resources Co. Ltd.

Heron Resources limited

Hunter Valley Coal Chain Coordinator Limited

IFC - Indústria de Fosfatados Catarinense Ltda

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Instituto Ambiental Vale - IAV

Integra Coal JV (Unincorporate)

Integra Coal Operations Pty Ltd. - (ACN 118 030 998)

Integra Coal Sales Pty Ltd. - (ACN 080 537 033)

Internacional Iron Company. Inc - IICI

Isaac Plains Coal Management Pty Ltd. - (ACN 114 277 315)

Isaac Plains Coal Sales Pty Ltd. - (ACN 114 276 701)

Isaac Plains JV (Unincorporate)

Isac Plans Sales & Marketing PTY Ltd.

Kaolin Overseas Limited

Kaserge Serviços Gerais Ltda. - KSG

Kasonta (B) Inc.

Kasonta-Lupoto Mines S.P.R.L. KALUMINES

Katanga (B) Incorporated

Katanga Holdings Zambia Limited

Konnoco (B) Inc.

Konnoco Holdings Zambia Limited

Korea Nickel Corporation

Lubambe Copper Mine Ltd.

Liquifer Siderurgia Ltda.

Maitland Main Collieries Pty Ltd. - (ACN 000 021 652)

MBR Overseas Ltd.

Millberg Holdings Zambia Limited

Minas da Serra Geral S.A. - MSG

Mineração Corumbaense Reunida S.A. - MCR

Mineração Dobrados S.A. Indústria e Comércio

Mineração Guanhães Ltda.

Mineração Guariba S.A.

Mineração Japurá Ltda.

Mineração Manati Ltda.

Mineração Mato Grosso S.A

Mineração Ocirema Indústria e Comércio Ltda

Mineração Paragominas S.A

Mineração Rio do Norte S.A. - MRN

Minerações BR Holding GmbH

Minerações Brasileiras Reunidas S.A. - MBR

Monticello Insurance Ltd.

MRS Logística S.A

MS Empreendimentos e Participações Ltda. - MSEP

MSE - Serviços de Operação, Manutenção e Montagens Ltda.

Multiplex Resource (Kazakhstan) Limited - MRK

MVM Resources International B.V

Mwambashi Holdings Zambia Limited

Mystery Lake Nickel Mines Limited

Nebo Central Coal Pty Ltd - (ACN 079 942 377)

NORPEL - Pelotização do Norte S.A

Norte Energia S.A. (NESA)

Pineland Timber Company Limited

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Ponta Ubu Agropecuária Ltda

Porto Norte S.A.

Potássio Rio Colorado S.A. - PRC

Prairie Potash Mines Limited

Prony Nickel S.A.S.

PT Sumbawa Timur Mining (PT STM)

PT Vale Eksplorasi Indonesia

PT Vale Indonesia Tbk

Qld Coal Holdings Pty Ltd - (ACN 081 724 129)

Railvest Investments Inc

Retiro Novo Reflorestamento Ltda.

Rio Doce Amsterdam BV

Rio Doce Australia Pty Ltd

Rio Doce International S.A

Salobo Metais S.A

Samarco Mineração S.A.

SDCN - Sociedade de Desenvolvimento do Corredor de Nacala S.A.R.L

Seamar Shipping Corporation

Shandong Yankuang International Coking Company Limited

SL Serviços Logísticos Ltda

Sociedad de Desenvolvimento de Estudos e implantação do Corredor de Nacala, limited

Sociedade de Mineração Constelação de Apolo S.A.

Societe d Exploration Minière Vior Inc. (VIOR)

Société Industrielle et Commercial Brasil-Luxemborgoise - BRASILUX

SRV Reinsurance Company S.A.

Startec Iron LLC

Tao Sustainable Power Solutions (BVI)

Tao Sustainable Power Solutions (UK)

Tao Sustainable Power Solutions (US)

Teal Minerals (Barbados) Incorporated

Tecfer Serra Azul Ltda.

Tecnored Desenvolvimentos Tecnológicos S.A

Tecnored Tecnologia de Auto-Redução S.A.

The Central East African Railways Company Limited

ThyssenKrupp Companhia Siderúrgica do Atlântico

ThyssenKrupp Slab International B.V

Tiebaghi Nickel S.A.S.

Transbarga Navegacion S.A. - TBN

Transporte Ferroviário Concessionária S.A. - TFC

Transporte Ferroviário Inversora Argentina S.A. - TFI

Troy Resources Limited

TUF Empreendimentos e Participações S.A.

Turbo Power Systems Inc.

Turbo Power Systems Limited

UF Distribuidora de Combustíveis Ltda

Ultrafértil S.A

Vale Africa Investments (Proprietary) Limited

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Vale Americas Inc

Vale Asia Kabushiki Kaisha - Vale Asia K.K.

Vale Australia (CQ) Pty Ltd - (ACN 103 902 389)

Vale Australia (EA) Pty Ltd - (ACN 081 724 101)

Vale Australia (GC) Pty Ltd - (ACN 097 238 349)

Vale Australia (IP) Pty Ltd - (ACN 114 276 694)

Vale Australia Ellensfield Pty Ltd - (ACN 123 542 487)

Vale Australia Holdings Pty Ltd (ACN 075 176 386)

Vale Australia Pty Ltd (ACN 062 536 270)

Vale Belvedere (BC) Pty Ltd

Vale Belvedere (SEQ) Pty Ltd

Vale Belvedere Pty Ltd (ACN 128 403 645)

Vale Canada Holdings Inc.

Vale Canada Limited

Vale China Holdings (Barbados) Ltd.

Vale Coal Exploration Pty Ltd - (ACN 108 568 725)

Vale Comercio Internacional SE - VCI

Vale Cubatão Fertilizantes Ltda

Vale Emirates Limited

Vale Energia Limpa S.A.

Vale Energia Limpa Moçambique Ltd

Vale Energia S.A

Vale Europa SE

Vale Europe Limited

Vale Europe Pension Trustees Ltd.

Vale Evate Moçambique Limitada

Vale Exploración Argentina S.A. - VEA  
Vale Exploraciones Chile Ltda  
Vale Exploraciones Mexico S.A. de C.V.  
Vale Exploration Canada Inc.  
Vale Exploration Peru SAC  
Vale Exploration Philippines Inc  
Vale Exploration Pty Ltd (ACN 127 080 219)  
Vale Explorations USA, Inc.  
Vale Fertilizantes S.A.  
Vale Fertilizer Austrália PTY Ltd  
Vale Fertilizer International Holding B.V  
Vale Fertilizer Netherlands B.V  
Vale Florestar - Fundo de Investimento em Participações  
Vale Holdings AG  
Vale Inco Atlantic Sales Limited  
Vale Inco Australia Ltd. Partnership  
Vale Inco Europe Holdings  
Vale Inco Management Advisory Services (Shangai) Co., Ltd.  
Vale Inco Pacific Ltd.  
Vale Inco Resources (Australia) Pty Ltd.  
Vale India Private Limited  
Vale International Holdings GmbH



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Vale International SA

Vale Investments Ltd.

Vale Japan Ltd.

Vale Kazakhstan Limited Liability Partnership

Vale Limited

Vale Logística Africa Ltda.

Vale Logística da Argentina S.A - VLA

Vale Logística do Uruguay S.A

Vale Logistics Limited

Vale Malaysia Minerals Sdn. Bhd

Vale Malaysia Sdn. Bhd.

Vale Manganês S.A

Vale Mauritius Ltd.

Vale Mina do Azul S.A

Vale Minerals China Co. Ltd

Vale Moçambique S.A..

Vale Newfoundland & Labrador Ltd.

Vale Nickel (Dalian) Co. Ltd

Vale Nouvelle-Calédonie S.A.S.

Vale Oil & Gas Peru S.A.C.

Vale Óleo e Gás S.A

Vale Oman Distribution Center LLC

Vale Oman Pelletizing Company LLC

Vale Overseas Ltd.

Vale Pecém S.A.

Vale Potash Canada Limited

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Vale Projectos e Desenvolvimento Moçambique Limitada

Vale Projectos de Minerales S.A

Vale Republic Democratique Du Congo SPRL - Vale Congo

Vale Shipping Company Pte Limited

Vale Shipping Enterprise Pte. Ltd

Vale Shipping Holding Pte. Ltd

Vale Shipping Singapore Pte. Ltd

Vale Slab S.A

Vale Soluções em Energia S.A - VSE

Vale South Africa (Proprietary) Ltd.

Vale Switzerland S.A.

Vale Taiwan Limited

Vale Technology Development (Canada) Limited

Vale Trading (Shanghai) Co. Ltd - VTS

Vale Zambia Limited

ValeServe Malaysia Sdn. Bhd.

Valesul Alumínio S.A.

VBG - Logistics ( Vale BSGR Logistics) Corp.

VBG - Vale BSGR BVI Limited

VBG - Vale BSGR Guinea

VBG - Vale BSGR Liberia Limited

VBG - Vale BSGR Limited

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VEL (ME) Ltd

VEL Holdings GmbH

VLI Multimodal S.A.

VLI Operações de Terminais S.A. - VOT

VLI Operações Portuárias S.A. - VOP

VLI Operações Portuárias S.A.

VLI S.A.

Wiggins Island Coal Export Terminal Pty Ltd. (WICET)

YPF S.A. - Potasio Rio Colorado S.A., Unión Trasitoria de empresas - Segmento 5 Loma La Lata - Sierra Barrosa

Zhuhai YPM Pellet Co. Ltd.

**d. participation in the Company by companies in the group**

As well as participation in Valepar, Vale's direct controller Valepar, described in item a above, the following companies held direct shares in the Company:

Company in the Group	Participation in the Company (%)
BNDES Participações S.A.	5.1%
Caixa de Previd. Dos Func. Do Banco do Brasil - Previ	0.1%

None of the above companies, as described in item c above, holds direct or indirect participation in the Company.

**e. companies under common control**

Vale is an equity company controlled by Valepar, whose indirect and indirect controlling shareholders are Previ, BNDESPar, Bradespar, Mitsui, and Eletron. Therefore, all other companies are controlled by these shareholders are considered as corporation under the same control relative to Vale.

**8.2. - Holding s Organization Chart**

Vale has chosen not to present its holding s organization chart, grounded in CVM Instruction no. 480, on December 7, 2009.

**8.3 Restructuring operations**

*Justification for not filling out the table:*

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See item 6.5 of this Reference Form, given that there were no restructuring operations in Vale's economic group besides those involving the Company and its controlled companies already described in the referred item..

**8.4 Other information which the Company judges to be relevant**

As Mitsui & Co. Ltd., a direct controller of Valepar S.A., has capital shares spread among many shareholders with no clearly defined control, its shareholders were not considered to be a company of the group in item 8.1 (d). of this Reference Form.

Table of Contents**9.1 Relevant non-current assets others**

Items 9.1 (a), 9.1 (b), and 9.1(c) of this Reference Form, describe the principal non-current assets of the Company.

The main fixed assets of the Company consist of various buildings, facilities, equipment, IT equipment, railroads, and mining rights, as described in item 9.1 (a) of this Reference Form.

The following table describes the book value of fixed assets of the Company in December 31, 2013 by category and geographic location:

In thousands of R\$									
On December 31, 2013	Brazil	Europe	North America	Australia	Africa	Asia	New Caledonia	Others	Total
Buildings	13,961,377	172,435	593,807		392,027	2,396,559	2,921,223	13,479	20,450,907
Facilities	15,200,280	2,343	3,656,087		2,877	11,714	6,149,327	599,909	25,622,537
Equipment	10,282,913	140,692	859,734		2,481,889	2,921,023	161,640	2,769,556	19,617,447
IT	215,430	112,485	51,537		2,911	20,640	21,084	4,577	428,664
Railroads	4,946,258		53,880			91,362		7,914	5,099,414
Mining	11,424,781	6,406	17,147,837	1,317,258	3,430,243	2,876,715	1,667,933	258,317	38,129,490
Others	6,846,957	1,260,067	4,582,088	809,855	13,621	4,543,969	679,354	448,508	19,184,419
Ongoing	36,541,925	132,296	14,842,718		6,494,929	3,595,652	803,512	364,329	62,775,361
<b>Total</b>	<b>99,419,921</b>	<b>1,826,724</b>	<b>41,787,688</b>	<b>2,127,113</b>	<b>12,818,497</b>	<b>16,457,634</b>	<b>12,404,073</b>	<b>4,466,589</b>	<b>191,308,239</b>

Table of Contents**9.1 Relevant non-current assets / 9.1.a Fixed assets**

Description of the fixed asset	Location		Location Municipality	Type of Property
	Country	Location State		
Integrated iron ore production system in North System	Brazil	Various	Various	N/A
Integrated iron ore production system in Southeast System	Brazil	Various	Various	N/A
Integrated iron ore production system in South System	Brazil	Various	Various	N/A
Pelletizing plant - Tubarão I	Brazil	Espírito Santo	Vitória	Own
Pelletizing plant - Tubarão II	Brazil	Espírito Santo	Vitória	Own
Pelletizing plant - Fábrica	Brazil	Minas Gerais	Congonhas	Own
Pelletizing plant - São Luiz	Brazil	Maranhão	São Luis	Own
Pelletizing plant - Vargem Grande	Brazil	Minas Gerais	Nova Lima	Own
Integrated nickel production system: mine, processing plant, smelter	Canada		Sudbury	N/A
Integrated nickel production system: mine, processing plant, smelter	Canada		Thompson	N/A
Nickel mine and processing plant	Canada		Voisey s Bay	N/A
Manganese Mines	Brazil	Various	Various	N/A
Paragominas Mine	Brazil	Pará	Various	N/A
Thermal and metallurgical coalmine	Australia		Hunter Valley	N/A
Thermal and metallurgical coalmine	Australia		Bowen Basin	N/A
Iron ore mines various Central West system	Brazil	Mato Grosso do Sul	Various	N/A
Pelletizing plant - Oman	Oman			Own
Nickel mine and processing plant	New Caledonia		Noumea	N/A
PVTI nickel mine	Indonesia		Sorowako	N/A
Nickel refinery Clydach	Wales		Clydach	Own
Sossego mine	Brazil	Pará	Various	N/A
Salobo mine	Brazil	Pará	Various	N/A
Onça Puma mine	Brazil	Pará	Various	N/A
Thermal and metallurgical coalmine - Moatize	Mozambique		Various	N/A
Potash mine Taquari-Vassouras	Brazil	SE	Various	Own
Phosphorite mine - Bayóvar	Peru		Piura	N/A
Phosphorite mine and processing plant	Brazil	Various	Various	N/A
Port Colborne smelter of precious metals	Canada		Ontario	Own
Ferroalloys plant	Brazil	Various	Various	Own
Platinum Refinery	Great Britain		Acton	Own
Nickel refinery Taiwan	Taiwan		Kaoshing	Own
Nickel refinery Matsuzaka	Japan		Matsuzaka	Own
Nickel refinery Dalian	China		Dalian	Own

Table of Contents**9.1 - Relevant non-current assets / 9.1.b - Patents, trademarks, licenses, concessions, franchises, and contracts for technology transfer**

Type of asset	Description of asset	Territory affected	Duration	Events which might cause a loss of rights	Consequences of loss of rights
Concessions	Mining concessions in Brazil	660,715 hectares	Undetermined	Persistent breach of current mining legislation: predatory mining; mining stopped without notice to, and consent of, the competent agency; not answering repeated requests for routine inspections.	Interruption and/or cancellation of mining operations in Brazil
Concessions	Lease license to mining in Canada	279,977 hectares	2014-2034	Failure to pay taxes (mining tax or rental fees), non-compliance with regulation, failure to present renewal application. Rejection of application for renewal, noncompliance with renewal requirements.	Interruption and/or cancellation of mining operations and/or mineral exploration in Canada
Concessions	Contract of Work in Indonesia	190,510 hectares	2025	End of the term of the contract; cancellation due to errors or irregularity in the procedure for or in the act of its granting; and in the case of the bankruptcy or dissolution of the concessionaire. Breach of legislation. Note: The Contract of Work of mines that Vale has in Indonesia expires in 2025. However, according to the new Mining Law, Vale may request at least one extension of 10 years.	Interruption and/or cancellation of mining operations in Indonesia.



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<b>Type of asset</b>	<b>Description of asset</b>	<b>Territory affected</b>	<b>Duration</b>	<b>Events which might cause a loss of rights</b>	<b>Consequences of loss of rights</b>
Concessions	Mining concessions in Australia	19,209 hectares	2015-2041	Non-payment of lease/royalties; failure to submit report on activities. Breach of legislation.	Interruption and/or cancellation of mining operations in Australia.
Concessions	Mining concessions in New Caledonia	21,269 hectares	2015-2051	Non-payment of fees, non-payment of lease/royalties; non-submission of report on activities; lack of activity on the concessions. Breach of legislation.	Interruption and/or cancellation of mining operations in New Caledonia; impossibility of adding mineral resources that allow expanding our mining activities outside the area of the VNC project.
Concessions	Mining concessions in Peru	154,867 hectares	Undetermined	Non-payment of fees for more than two consecutive years and non-payment of fines. Breach of legislation.	Interruption and/or cancellation of mining operations in Peru.
Concessions	Mining concessions in Guinea	102,400 hectares	2035	Failure to pay fees and taxes, failure to submit activity reports, lack of activities in the concessions. Significant changes to mining legislation, cancellation of mining concessions. Non-compliance with contractual obligations with the Government of Guinea (Base Convention), non-compliance with legal requirements and/or mineral legislation	Interruption and/or cancellation of mining operations in Guinea.
Concessions	Mining concessions (Discovery Statement) in Argentina	161,628 hectares	Undetermined	Failure to present the request for measurement; failure to use legalized labor; non-payment of mining fees.	Interruption and/or cancellation of mining operations in Argentina.
Concessions	Mining concessions in Chile	64,697 hectares	Undetermined	Non-compliance with annual payment deadlines; lack of opposition [sic] from third parties to requests for areas by Vale.	Interruption and/or cancellation of mining operations in Chile.

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Type of asset	Description of asset	Territory affected	Duration	Events which might cause a loss of rights	Consequences of loss of rights
Concessions	Mining concessions in Mozambique	23,780 hectares	2032	In this country, the reasons for loss of the concession are, above all, related to: (i) the abandonment or the mine; (ii) the performance of mining activities under health and safety conditions that are not compatible with the requirements of local legislation; (iii) the lack of payment of fees regarding production of minerals and other levies due as a result of carrying out mining activity; and (iv) bankruptcy of the company, failure to demarcate the area, failure to pay specific taxes, failure to present working reports, and non-performance of work in accordance with the mining plan.	Interruption and/or cancellation of mining operations in Mozambique.
Concessions	Rail concession for passenger and freight transport on the EFC Railroad	892 km (MG, SP, ES, RJ, GO, BA, SE, and DF)	2027 (extendible for 30 years)	The concession will be terminated if one of the following takes place: the end of the contractual period, nationalization, forfeiture, rescission, cancellation, or bankruptcy or dissolution of the concessionaire	Interruption and/or cancellation of the railroad operations, which make up the Northern System of Vale.
Concessions	Rail concession for passenger and freight transport on the Vitória a Minas Railroad	Extension of 905 km in the states of Espírito Santo and Minas Gerais	2027 (extendible for 30 years)	The concession will be terminated if one of the following takes place: the end of the contractual period, nationalization, forfeiture, rescission, cancellation, or bankruptcy or dissolution of the concessionaire.	Interruption and/or cancellation of the railroad operations, which make up the Southeast System of Vale.
Concessions	Concession for the Center-East network belonging to the Federal Railroad Network S.A., granted to FCA	7,220 km in Sergipe, Bahia, Minas Gerais, São Paulo, Rio de Janeiro, Goiás, and Federal District	2026 (extendible for 30 years)	The concession will be terminated if one of the following takes place: the end of the contractual period, nationalization, forfeiture, rescission, cancellation, or bankruptcy or dissolution of the concessionaire.	Interruption and/or cancellation of the railroad operations.

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Concessions	Sub concession contract with lease of North-South Railroad network	720 km, between Açailândia (MA) and Palmas (TO)	2037 (extendible for 30 years)	The concession will be terminated if one of the following takes place: the end of the contractual period, nationalization, forfeiture, rescission, cancellation, or bankruptcy or dissolution of the subconcessionaire.	Interruption and/or cancellation of the railroad operations.
Concessions	Concession for use of public property for electric energy generation Igarapava Dam	Igarapava (SP), Conquista (MG), Rifaina (SP)	2028	(i) by reversion of the asset at the end of the contractual period; (ii) by nationalization.	Interruption and/or cancellation of the supply of energy from the hydroelectric plant.
Concessions	Concession for use of public property for electric energy generation Porto Estrela Dam	Joanésia (MG), Braúnas (MG), and Açucena (MG)	2032	(i) the termination of the contractual period; (ii) by nationalization of the services; (iii) by forfeiture; (iv) by rescission; (v) by cancellation as a result of defect or irregularity verified in the procedure or act of making the grant; (vi) in the case of bankruptcy or dissolution of the concessionaire.	Interruption and/or cancellation of the supply of energy from the hydroelectric plant.
Concessions	Concession for use of public property for electric energy generation Capim Branco I and II Dam	Araguari (MG), Uberlândia (MG), and Indianópolis (MG)	2036	(i) the termination of the contractual period; (ii) by nationalization of the services; (iii) by forfeiture; (iv) by rescission; (v) by cancellation as a result of defect or irregularity verified in the procedure or act of making the grant; (vi) in the case of bankruptcy or dissolution of the concessionaire.	Interruption and/or cancellation of the supply of energy from the hydroelectric plant.

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Type of asset	Description of asset	Territory affected	Duration	Events which might cause a loss of rights	Consequences of loss of rights
Concessions	Concession for use of public property for electric energy generation Funil Dam	Cities in Minas Gerais	2035	(i) the termination of the contractual period; (ii) by nationalization of the services; (iii) by forfeiture; (iv) by rescission; (v) by cancellation as a result of defect or irregularity verified in the procedure or act of making the grant; (vi) in the case of bankruptcy or dissolution of the concessionaire.	Interruption and/or cancellation of the supply of energy from the hydroelectric plant.  Note: Lavras (MG), Perdões (MG), Ijaci (MG), Itumirim (MG), Ibituruna (MG), and Bom Sucesso (MG).
Concessions	Concession for use of public property for electric energy generation Aimorés Dam	Cities in Minas Gerais	2035	(i) the termination of the contractual period; (ii) by nationalization of the services; (iii) by forfeiture; (iv) by rescission; (v) by cancellation as a result of defect or irregularity verified in the procedure or act of making the grant; (vi) in the case of bankruptcy or dissolution of the concessionaire.	Interruption and/or cancellation of the supply of energy from the hydroelectric plant.  Note: Aimorés (MG), Baixo Guandu (ES), Resplendor (MG), and Itueta (MG) .
Concessions	Concession for use of public property for electric energy generation Candonga Dam	Rio Doce (MG) and Santa Cruz do Escalvado (MG)	2035	(i) the termination of the contractual period; (ii) by nationalization of the services; (iii) by forfeiture; (iv) by rescission; (v) by cancellation as a result of defect or irregularity verified in the procedure or act of making the grant; (vi) in the case of bankruptcy or dissolution of the concessionaire.	Interruption and/or cancellation of the supply of energy from the hydroelectric plant.

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Type of asset	Description of asset	Territory affected	Duration	Events which might cause a loss of rights	Consequences of loss of rights
Concessions	Concession for use of public property for electric energy generation Estreito Dam	Cities in Maranhão and Tocantins	2037	(i) termination of the contractual period; (ii) nationalization; (iii) forfeiture; (iv) rescission; (v) cancellation as a result of defect or irregularity verified in the procedure or act of making the grant; (vi) bankruptcy or dissolution of the concessionaire.	Interruption and/or cancellation of the supply of energy from the hydroelectric plant.

Type of asset	Description of asset	Territory affected	Duration	Events which might cause a loss of rights	Consequences of loss of rights
Concessions	Concession for use of public property for electric energy generation Santa Isabel Dam	Cities in Tocantins and Pará	2037*	(i) termination of the contractual period; (ii) nationalization; (iii) forfeiture; (iv) rescission; (v) cancellation as a result of defect or irregularity verified in the procedure or act of making the grant; (vi) bankruptcy or dissolution of the concessionaire.	<p>Interruption and/or cancellation of the supply of energy from the hydroelectric plant.</p> <p>This is not under commercial operation yet. In August 2013, Consortium parties chose to return the Concession as use of public property for the power generation operation, filing a petition before ANEEL for purposes of terminating the Concession Agreement no. 22/2002-ANEEL-AHE Santa Isabel. The Termination Term that sets the end of the Concession was signed by the Consortium parties before the MME (Ministry of Mines and Energy) in December 2013 and ANEEL published it in the Official Gazette on January 31, 2014.</p>

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<b>Type of asset</b>	<b>Description of asset</b>	<b>Territory affected</b>	<b>Duration</b>	<b>Events which might cause a loss of rights</b>	<b>Consequences of loss of rights</b>
Concessions	Concession in a shared arrangement for electric energy generation Machadinho Dam	Cities in Rio Grande do Sul and Santa Catarina	2032	(i) by reversion of the asset at the end of the contractual period; (ii) by nationalization; (iii) by forfeiture.	Interruption and/or cancellation of the supply of energy from the hydroelectric plant.
Concessions	Concession for the utilization of hydraulic energy Nova Maurício Dam	Leopoldina (MG)	2021	(i) termination of the contractual period	Interruption and/or cancellation of the supply of energy from the small hydroelectric plant.
Concessions	Concession for the utilization of hydraulic energy Glória Dam	Muriaé (MG)	2021	(i) termination of the contractual period	Interruption and/or cancellation of the supply of energy from the small hydroelectric plant.
Concessions	Concession for the utilization of hydraulic energy Ituerê Dam	Rio Pomba (MG)	2021	(i) termination of the contractual period	Interruption and/or cancellation of the supply of energy from the small hydroelectric plant.

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Type of asset	Description of asset	Territory affected	Duration	Events which might cause a loss of rights	Consequences of loss of rights
Concessions	Concession for the utilization of hydraulic energy Mello Dam	Rio Preto (MG)	2025	(i) termination of the contractual period.	Interruption and/or cancellation of the supply of energy from the small hydroelectric plant.
Trademarks	Registration of Mixed Trademark Vale	172 countries	2017 (extendible every 10 years)	Within the administrative sphere (the Brazilian National Institute for Industrial Property INPI), the registration of trademarks already granted may be contested through nullification procedures or be subject to petitions for partial or total cancellation under the allegation that the trademark is not being used in the way that the registration was granted. In the judicial sphere, third parties may sue for the nullification of trademark registrations alleging violation of their rights to industrial property. Trademark registrations are maintained by periodic payments to INPI. The payment of the fees due and the continual use of the trademarks are indispensable to avoid the termination of their registration and the consequent cessation of the rights of the holder.	The loss of rights to trademarks results in the impossibility of stopping third parties from using identical or similar trademarks to brand even competing products and services, since the holder loses the right to the exclusive use of them. There also exists the possibility that the holder be subject to criminal and civil lawsuits for improper use, in the case of the violation of the rights of third parties, resulting in the impossibility of using the trademarks when carrying out its activities. It is not possible to quantify the impact of these events.
Type of asset	Description of asset	Territory affected	Duration	Events which might cause a loss of rights	Consequences of loss of rights
Licenses	Domain name: Vale.com.br	Brazil	9/16/2018	The loss of rights related to such assets relates to: (i) lack of payment to maintain the domain; (ii) finding that at registration or later, there was use of false CNPJ, CPF, corporate name, or invalid, incorrect, or outdated; (iii) failure to timely comply with the provision of documents; (iv) by court order; and (v) by express request of the applicant of the domain registration.	It is not possible to quantify the impact; however, it is certain that with the loss of the domain name, this could be registered by third parties.
Licenses	Domain name: Vale.com.br	Brazil	10/7/2020	The loss of rights related to such assets relates to: (i) lack of payment to maintain the domain; (ii) finding that at registration or later, there was use of false CNPJ, CPF, corporate name, or invalid, incorrect, or outdated; (iii) failure to timely comply with the provision of documents; (iv) by court order; and (v) by express request of the applicant of the domain registration.	It is not possible to quantify the impact; however, it is certain that with the loss of the domain name, this could be registered by third parties.

Table of Contents**9.1 - Relevant non-current assets / 9.1.c Participation in Corporations**

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Aços Laminados do Pará S.A.	10.335.963/0001-08		Controlled company	Brazil	RJ	Rio de Janeiro	100.000000

Year	Book value	variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Book Value Date	Value (R\$)
12/31/2013		0.600000	0.000000	0.00				
12/31/2012		20.000000	0.000000	0.00	12/31/2013		12/31/2013	321,000,000.00
12/31/2011		213.000000	0.000000	0.00				

**Reasons for buying and holding that participation** Encourage the consumption of iron ore in Brazil through investment in the iron and steel company.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Biopalma da Amazônia S.A., Reflorestamento, Indústria e Comércio.	08.581.205/0001-10		Controlled company	Brazil	PA	Belém	70.000000

**Description of activities** Biopalma is a privately-owned corporation which main activities relate to growing palm and other vegetables and extraction, processing, and sale of their oils

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Book Value Date	Value (R\$)
12/31/2013	60.000000	0.000000	0.00				
12/31/2012	-21.000000	0.000000	0.00	12/31/2013		12/31/2013	559,000,000.00
12/31/2011	0.000000	0.000000	0.00				

**Reasons for buying and holding that participation** Exploration of the palm oil production complex located in the State of Pará





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Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
VBG Vale BSGR BVI Limited	00.000.000/0000-00		Controlled	Virgin Islands (England)			51.000000

**Description of activities** All and any activity not prohibited by law.

Year	Book value	variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Date	Book Value Value (R\$)
12/31/2013		0.800000	0.000000	0.00				
12/31/2012		15.000000	0.000000	0.00	12/31/2013		12/31/2013	876,000,000.00
12/31/2011		-9.000000	0.000000	0.00				

**Reasons for buying and holding that participation** Iron ore investment in Guinea

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
California Steel Industries, Inc.	00.000.000/0000-00		Affiliate	United States			50.000000

**Description of activities** Exploration of any type of activity that is legal in the state of Delaware.

Year	Book value (%)	variation	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	24.000000		0.000000	0.00				
12/31/2012	14.000000		0.000000	19,000,000.00	12/31/2013		12/31/2013	425,000,000.00
12/31/2011	17.000000		0.000000	11,000,000.00				

**Reasons for buying and holding that participation** Relaminating operations in the USA.

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CNPJ							Issuer participation
Corporate Name	(Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	(%)
Companhia Coreano-Brasileira de Pelotização Kobrasco	33.931.494/0001-87		Controlled	Brazil	ES	Vitória	50.000000

**Description of activities** Production and marketing of iron ore pellets, as well as the performance of other activities directly or indirectly related to its purpose, including the import, export, and provision of services of any nature. The company is also able to participate, in any manner, in other companies

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Book Value Date	Value (R\$)
12/31/2013	-2.000000	0.000000	47,000,000.00				
12/31/2012	5.000000	0.000000	40,000,000.00	12/31/2013		12/31/2013	213,000,000.00
12/31/2011	0.000000	0.000000	54,000,000.00				

**Reasons for buying and holding that participation** Production and sale of iron ore pellets and performing any activity directly or indirectly related to the production and sale of iron ore pellets. The company may also participate in any other industrial and/or commercial activities correlated with its main purpose, as well as participate in other undertakings in Brazil.

CNPJ							Issuer participation (%)
Corporate Name	(Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	
Companhia Hispano-Brasileira de Pelotização Hispanobras	27.240.092/0001-33		Controlled	Brazil	ES	Vitória	50.890000

**Description of activities** Production and sale of iron ore pellets and performing any activity directly or indirectly related to the production and sale of iron ore pellets. The company may also participate in any other industrial and/or commercial activities correlated with its main purpose, as well as participate in other undertakings in Brazil.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Book Value Date	Value (R\$)
12/31/2013	-8.000000	0.000000	20,000,000.00				
12/31/2012	-1.000000	0.000000	74,000,000.00	12/31/2013		12/31/2013	196,000,000.00
12/31/2011	1.000000	0.000000	32,000,000.00				

**Reasons for buying and holding that participation** Expansion of Vale's participation in the pellet market in Brazil

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CNPJ							
Corporate Name	(Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Companhia Ítalo-Brasileira de Pelotização Itabasco	27.063.874/0001-44		Controlled	Brazil	ES	Vitória	50.900000

**Description of activities** Production and sale of iron ore pellets and performing any activity directly or indirectly related to the production and sale of iron ore pellets. The company may also participate in any other industrial and/or commercial activities correlated with its main purpose, as well as participate in other undertakings in Brazil.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Book Value Date	Value (R\$)
12/31/2013	12.000000	0.000000	0,00				
12/31/2012	-15.000000	0.000000	36,000,000.00	12/31/2013		12/31/2013	145,000,000.00
12/31/2011	5.000000	0.000000	71,000,000.00				

**Reasons for buying and holding that participation** Expansion of Vale's participation in the pellet market in Brazil

CNPJ							
Corporate Name	(Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Companhia Nipo-Brasileira de Pelotização Nibrasco	27.251.842/0001-72		Affiliate	Brazil	ES	Vitória	51.000000

**Description of activities** Production and sale of iron ore pellets and performing any activity directly or indirectly related to the production and sale of iron ore pellets. The company may also participate in any other industrial and/or commercial activities correlated with its main purpose, as well as participate in other undertakings in Brazil

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Book Value Date	Value (R\$)
12/31/2013	2.000000	0.000000	51,000,000.00				
12/31/2012	-2.000000	0.000000	51,000,000.00	12/31/2013		12/31/2013	372,000,000.00
12/31/2011	12.000000	0.000000	36,000,000.00				

**Reasons for buying and holding that participation** Expansion of Vale's participation in the pellet market in Brazil.

CNPJ							
Corporate Name	(Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)

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Companhia Portuária da Baía de Sepetiba	72.372.998/0001-66	Controlled	Brazil	RJ	Rio de Janeiro	100.000000
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**Description of activities** The construction and utilization of a port facility for private, mixed use, located within the area of Porto de Sepetiba, Rio de Janeiro, specialized in moving and storage of iron ore and its derivatives. Secondly and with a complementary character, the company may carry out port operations with other dry bulks, as long as these complementary operations do not interfere with the main operations. It is forbidden for the company to perform any activity different from its purpose, except with the express authorization of Companhia Docas do Rio de Janeiro CDRJ.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	-17.000000	0.000000	263,000,000.00				
12/31/2012	30.000000	0.000000	126,000,000.00	12/31/2013		12/31/2013	377,000,000.00
12/31/2011	12.000000	0.000000	155,000,000.00				

**Reasons for buying and holding that participation** Supply port services for iron ore operations.

## CNPJ

Corporate Name	(Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Ferrovias Centro Atlântica S.A.	00.924.429/0001-75	01536-9	Controlled	Brazil	MG	Belo Horizonte	99.990000

**Description of activities** Provide rail transport services; operate services for loading, unloading, warehousing, and transshipment in stations, yards, and land within the range of existing railway lines which are object of the concession; furnish modal transport related to rail transport; serve as a port operator, running services and operations for moving and storage of goods destined for or coming from water transport; participate in projects that aim to promote the socio-economic development of the areas of influence and seek to expand rail services offered; perform all similar or related activities as those described above; and engage in other activities that are based on the infrastructure of the Company.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	11,000000	0,000000	0,00				
12/31/2012	24,000000	0,000000	0,00	12/31/2013		12/31/2013	1,521,000,000.00
12/31/2011	35,000000	0,000000	0,00				

**Reasons for buying and holding that participation** Operation of the Centro-Atlantica Railroad concession.

## CNPJ

Corporate Name	(Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Ferrovias Norte Sul S.A.	09.257.877/0001-37	2181-4	Controlled	Brazil	MA	São Luís	100.00000

**Description of activities** Perform railroad freight operations, under the regime of sub concession, through the following activities: (a) provision of the administration and operation of the North-South Railroad, for the stretch from Açailândia, in the state of Maranhão, to Palmas, in the state of Tocantins (Stretch), including operation, conservation,

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maintenance, monitoring, improvement, and adaptation of the Stretch of railroad, as defined in the Bid Notice No. 001/2006 (Notice) including, in compliance with the conditions of the Sub-concession Contract with Lease (Contract); and (b) implementation, management, and supervision of the services mentioned in item (a) above, including associated projects, operational services, and complementary services, as well as supporting additional services and related

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acts provided that such activities are related to the objectives of the Company, under the terms of the Contract.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Market Value Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	7.000000	0.000000	0.00				
12/31/2012	-1.000000	0.000000	0.00	12/31/2013		12/31/2013	1,840,000,000.00
12/31/2011	0.000000	0.000000	3,000,000.00				

**Reasons for buying and holding that participation** Operation of the North-South Railroad concession.

CNPJ

Corporate Name	(Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Henan Longyu Energy Resources Co. Ltd.	00.000.000/0000-00		Affiliate	China			25.000000

**Description of activities**

Exploration and development of coal resources; producing, washing, processing, trading, and selling (including exportation) of coal and other related products; use, for different purposes, of the natural resources of coal; manufacturing and repair of mechanical and electrical equipment for mining, rental of equipment, and treatment of waste; and supply of post-sale technical and advisory services regarding the items above. The company can adjust its corporate purpose, based on the needs to develop the business and its own capacity, through the approval by the general meeting of shareholders and the competent government authorities.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Market Value Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	20.000000	0.000000	90,000,000.00				
12/31/2012	32.000000	0.000000	107,000,000.00	12/31/2013		12/31/2013	835,000,000.00
12/31/2011	27.000000	0.000000	0.00				

**Reasons for buying and holding that participation** Hold interest in company that owns coal assets in China

CNPJ

Corporate Name	(Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Mineração Corumbaense Reunida S.A. MCR	03.327.988/0001-96		Controlled	Brazil	MS	Corumbá	100.000000

**Description of activities**

Investigate and research ores and minerals; utilize and administer mine and mineral resources in general; obtain research permits and mining concessions for all kinds of ores and minerals under the terms of the laws regarding these matters; purchase and lease land, equipment, and facilities, including rights and



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interests in the subsoil and on the surface; purchase, sell, improve, process, refine, industrialize, import and export, market, and transport by rail, road and/or sea, ores, minerals, and metals of any kind whatsoever, on its own behalf or that of third parties; purchase and sell any

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and all manufactured products, machinery, and equipment related to the activities listed above; represent other companies, domestic and foreign; and participate in other commercial or civil companies, either as a partner, shareholder, or quota holder.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Market Value Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	-4.000000	0.000000	279,000,000.00				
12/31/2012	23.000000	0.000000	93,000,000.00	12/31/2013		12/31/2013	1,306,000,000.00
12/31/2011	22.000000	0.000000	0.00				

**Reasons for buying and holding that participation** Expansion of Vale's participation in the market for granulated iron ore.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Minerações Brasileiras Reunidas S.A.	33.417.445/0001-20		Controlled	Brazil	MG	Nova Lima	98.320000

**Description of activities** The mineral extraction industry, including prospecting and mining; provision of technical services especially to mining companies; transportation, processing, shipping, and sale of ores, for its own account or that of third parties; export and import of ores; participation in other companies, especially those whose objective is mining or transportation, processing, and shipping and sale of ores; provision of transport services; port and fluvial support.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Market Value Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	8.000000	0.000000	341,000,000.00				
12/31/2012	20.000000	0.000000	258,000,000.00	12/31/2013		12/31/2013	4,500,000,000.00
12/31/2011	16.000000	0.000000	0.00				

**Reasons for buying and holding that participation** Running iron ore operations in Brazil.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
MRS Logística S.A.	01.417.222/0001-77	1794-9	Affiliate	Brazil	RJ	Rio de Janeiro	47.590000

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**Description of activities** Provide rail transport services for cargo; operate services for loading, unloading, warehousing, and transshipment at the stations, yards, and land within the range of existing railway lines which are object of the concession; run modal transport related to rail transport; serve, as per the law, as a port operator, and run services and operations for moving and storage of goods destined for or coming from water transport; participate in projects that aim to promote the socio-economic development of the areas of influence and seek to expand rail services offered; perform all similar or related activities to those described above; and engage in other activities that utilize the infrastructure of the Company as a base.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	10.000000	0.000000	149,000,000.00				
12/31/2012	16.000000	0.000000	119,000,000.00	12/31/2013		12/31/2013	1,322,000,000.00
12/31/2011	21.000000	0.000000	92,000,000.00				

**Reasons for buying and holding that participation** Provide logistics services for iron ore and pellet operations.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Salobo Metais S.A.	33.931.478/0001-94		Controlled	Brazil	RJ	Rio de Janeiro	100.000000

**Description of activities** Utilization of mineral resources within Brazil, particularly the Salobo deposit, located in the Serra dos Carajás in the district and municipality of Marabá in the State of Pará, the subject of Mining Ordinance No. 1121 of 14/Jul/87, including the mining, processing, smelting, refining, transport, and marketing of copper, gold, and their by-products

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	12.000000	0.000000	0.00				
12/31/2012	37.000000	0.000000	0.00	12/31/2013		12/31/2013	7,120,000,000.00
12/31/2011	41.000000	0.000000	0.00				

**Reasons for buying and holding that participation** Running the Salobo copper deposit operations in Brazil.

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Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Samarco Mineração S.A.	16.628.281/0001-61		Affiliate	Brazil	MG	Belo Horizonte	50.000000

**Description of activities** Prospecting and mining of ores throughout Brazil; processing and marketing of ores; transport and navigation within the port, including for third parties; and importation of equipment for its own use, spare parts, and raw materials, production and distribution of power and sale of coal, and the company may also hold interest in other companies as shareholder or quota holder.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	-21.000000	0.000000	1,323,000,000.00				
12/31/2012	73.000000	0.000000	373,000,000.00	12/31/2013		12/31/2013	1,023,000,000.00
12/31/2011	10.000000	0.000000	1,384,000,000.00				

**Reasons for buying and holding that participation** Expansion of Vale's participation in the market for iron ore and pellets in Brazil.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Thyssenkrupp CSA Cia. Siderúrgica do Atlântico	07.005.330/0001-19		Affiliate	Brazil	RJ	Rio de Janeiro	26.870000

**Description of activities** Construction and operation of an integrated plant for the production, selling, and transformation of iron and steel products, as well as the production, transformation, and selling of all by-products related to the working of the plant, including the importation and exportation of all products, inputs, and capital assets of the plant; construction, management, operation, and utilization of a commercial complex of port operations, including operation as a Brazilian shipping company in performing shipping services, port support, and carrying out drainage services; construction, administration, operation, and utilization of a thermoelectric plant; creation of subsidiaries, as well as the participation in any other company, consortium, or entity in Brazil or abroad for achieving the business purpose; and development, within Brazilian or abroad, of any other activity that is directly or indirectly related to the achievement of the business purpose of the company.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	-31.000000	0.000000	0.00				
12/31/2012	-64.000000	0.000000	0.00	12/31/2013	0.000000	12/31/2013	752,000,000.00
12/31/2011	-2.000000	0.000000	0.00				

**Reasons for buying and holding that participation** Encourage the consumption of iron ore in Brazil through the investment in a company that manufactures steel sheets.



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Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale International Holdings GMBH	00.000.000/0000-00		Controlled	Austria			100.000000

**Description of activities** Acquisition and management of shares and participation in companies/associations of any kind and investments in assets; control and management of one or more activities related to any of the companies in which it participates or the assets in which it has investments; exercise of any and all activities which are necessary or useful in order to reach the above-mentioned purposes.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	61.000000	0.000000	0.00				
12/31/2012	4.000000	0.000000	0.00	12/31/2013	0.000000	12/31/2013	13,150,000,000,00
12/31/2011	383.000000	0.000000	0.00				

**Reasons for buying and holding that participation**  *Holding of a company that exploits minerals world-wide.*

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale Canada Limited	00.000.000/0000-00		Controlled	Canada			100.000000

**Description of activities** The global activities of Vale Canada Limited are managed from headquarters in Toronto, in the Canadian province of Ontario, which continues its corporate functions and has significant local involvement.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	200.000000	0.000000	0.00				
12/31/2012	21.000000	0.000000	0.00	12/31/2013	0.000000	12/31/2013	19,312,000,000,00
12/31/2011	8.000000	0.000000	0.00				

**Reasons for buying and holding that participation** Running nickel and by-products operations (copper, cobalt, platinum group metals, and other precious metals) in Canada, the United Kingdom, and Indonesia.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale Florestar S.A.	11.985.056/0001-69		Affiliate	Brazil	RJ	Rio de Janeiro	40.000000

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**Description of activities** Act directly or indirectly and develop projects in the areas of reforestation, forest management, rendering of environmental services, usage of carbon credits so derived, rendering of services related to forest activities, and carrying out other activities related to the forest or timber sector.

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Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Market Value Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	-2.000000	0.000000	0.00				
12/31/2012	-1.000000	0.000000	0.00	12/31/2013	0.000000	12/31/2013	219,000,000.00
12/31/2011	-3.000000	0.000000	0.00				

**Reasons for buying and holding that participation**

Promote the reforestation of degraded areas

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale International S.A.	00.000.000/0000-00		Controlled	Switzerland			100.000000

**Description of activities**

Buy, own, manage, and sell direct or indirect holdings in companies or businesses, especially abroad; trade and distribute the products of companies within the group, develop relationships with customers, and provide technical assistance, including product development and production planning, to customers and companies of the group throughout the world; perform research and development activities in the sectors of mining, logistics, and energy; finance companies and businesses of the group and provide business, financial, administrative, and legal services to other companies and businesses of the group in Switzerland and abroad. The company may conduct any activities that have a relation to its business objective, or support them, especially as regards managing and defining ownership rights and/or licensing of patents, trademarks of any kind, know-how and other intellectual property rights, and buy, hold, and sell real estate.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Market Value Value (R\$)	Date	Book Value Value (R\$)
12/31/2013	-19.000000	0.000000	0.00				
12/31/2012	-8.000000	0.000000	0.00	12/31/2013	0.000000	12/31/2013	28,067,000,000.00
12/31/2011	9.000000	0.000000	0.00				

**Reasons for buying and holding that participation**

Perform financial transactions and business activities.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale Manganês S.A.	15.144.306/0001-99		Controlled	Brazil	BA	Congonhas	100.000000

**Description of activities**

The steel industry, metallurgy, industry, and sale of ferroalloys; utilization, for its own account or in combination with other companies, of mineral deposits, including prospecting, mining, processing, transportation, sale, import, and export of mineral substances; reforestation; extraction, production, sale, import, and export of wood and charcoal and other goods of mineral or vegetable origin used in its production processes and their derivatives and by-products; import and export of goods related to or required for its activities, including equipment, inputs, and miscellaneous materials; any other related activities that do not conflict with its business purpose or with prevailing legislation

Book value variation	Market value	Amount of dividends	Market Value	Book Value
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Year	(%)	variation (%)	received (Reais)	Date	Value (R\$)	Date	Value (R\$)
12/31/2013	-4.000000	0.000000	0.00				
12/31/2012	-4.000000	0.000000	958,000.00	12/31/2013	0.000000	12/31/2013	665,000,000.00
12/31/2011	-19.000000	0.000000	382,000,000.00				

Table of Contents**Reasons for buying and holding that participation**

Running ferroalloy and manganese operations in Brazil

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale Soluções em Energia S.A. - VSE	09.327.793/0001-22		Controlled	Brazil	RJ	Rio de Janeiro	53.130000

**Description of activities**

Research and development of technologies in order to obtain systems and products ecologically efficient for the generation of energy, as well as the development and test of prototypes; development of technical and economic viability studies related to the business purpose of the company, as well as market studies, business plans, and other related studies; participation as a partner or shareholder in other simple or business companies and in business undertakings of any nature, including partnerships, in Brazil and/or abroad; development, manufacturing, construction, purchase, sale, distribution, renting, gratuitous loan, importation, and exportation of machines and equipment for the industry, including accessories, parts, and other materials that are necessary in order to obtain ecologically efficient products for generating energy; and rendering services for the assembly, maintenance, and technical assistance of machines and equipment for the generation of energy.

Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)	Market Value Date	Market Value Value (R\$)	Book Value Date	Book Value Value (R\$)
12/31/2013	-28.000000	0.000000	0.00				
12/31/2012	-46.000000	0.000000	0.00	12/31/2013	0.000000	12/31/2013	106,000,000,00
12/31/2011	37.000000	0.000000	0.00				

**Reasons for buying and holding that participation**

Develop power generation systems.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale Fertilizantes S.A.	33.931.486/0001-30		Controlled	Brazil	SP	São Paulo	100.000000

**Description of activities**

The purpose of Vale Fertilizantes S.A. (Company), formerly known as Mineração Naque S.A. (Naque), which new name was approved by the Shareholders Meeting held on May 15, 2012, is mining activity in general, the use of mineral deposits in domestic and foreign lands, by research, extraction, processing, concentration, industrialization, transportation, shipping, and sale of goods for animal nutrition, chemical products, input of above mentioned products and other agriculture and cattle-raising products, as well as activities arising out of the development of the production, industrialization, and sale of such products and others.

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<b>Year</b>	<b>Book value variation (%)</b>	<b>Market value variation (%)</b>	<b>Amount of dividends received (Reais)</b>	<b>Market Value Date</b>	<b>Market Value Value (R\$)</b>	<b>Book Value Date</b>	<b>Book Value Value (R\$)</b>
12/31/2013	3.000000	0.000000	0.00				
12/31/2012	7.000000	0.000000	0.00	12/31/2013	0.000000	12/31/2013	13,751,000,000.00
12/31/2011	15.000000	0.000000	0.00				

**Reasons for buying and holding that participation**      Conduct and promote Vale business in the fertilizer segment.

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**9.2 Other Relevant Information**

As of December 31, 2013, Vale considered as intangibles of Intellectual Property a total of 8,171 processes throughout the world, in a total of 172 countries (374 patents in Brazil and 2,509 abroad; 925 trademark processes in Brazil and 1,640 abroad; and 2,055 domain names in Brazil and 604 abroad; and 63 software in Brazil and 1 abroad).

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**10. Director Comments**

**10.1. General Financial and Equity Conditions**

**a. General Financial and Equity Conditions**

In 2013, Vale net operational revenue was R\$ 101.5 billion, and the operational margin (prior to the recoverable values of noncurrent assets and loss in investment sales) was 35.6%. The operational profit was R\$ [32.3 billion in 2013, about 80% above 2012's operational profit in 2012, mainly due to a drop in the recoverable value of noncurrent assets reported in 2012. Benefits from the Company's efforts to cut costs, from investment discipline and from a focus on core business became evident this year. Vale had a 38.7% reduction in general and administrative costs (SG&A), corresponding to R\$1.445 billion, relative to 2012. This reflects greater optimization in the Company's cost structure. Additionally, in 2013, Vale had a reduction of 39.5% in research and development expenses (R&D, corresponding to R\$ 1.1 billion, relative to 2012) as the result of a portfolio focused mainly in project exploration and development. During this time, Vale also established the foundation to deliver greater volume and free cash flow growth in the upcoming years. Cash generation, measured in Adjusted EBITDA(2), was R\$ 49 billion in 2013, which means the second greatest amount in the Company's history].

In the same term, as a result of the Company's focus on the iron ore core business, several adjustments were made to reach the Company's goals, among which were a reduction in the recoverable value of potash assets (PRC) and pellets and [the loss from the sale of the company Tres Valles, as described in Explanatory Note no. 7 of the Company's Accounting Statements. Besides, Vale also reported an operation in the Tax Recovery Program REFIS, which substantially involved all of the claims related to income tax collection and social contributions on capital gains of subsidiary and associated companies abroad, whose loss expectations were classified as possible. Such factors negatively affected our financial performance in 2013, resulting in financial indicators reduction relative to what was obtained in 2012. In this scenario, we had a net loss of R\$ 258 million in 2013; relative to 2012's net profit of R\$ 9.4 billion.

2012 was a very challenging year for the world's economy, which, amidst a cloud of uncertainties, grew below the long-term trend for the second consecutive year. One of the consequences of the adverse macroeconomic scenario was the general drop in the price of minerals and metals, with the exception of gold, a very valuable metal whose prices are influenced by other factors. The iron ore price became very volatile, showing great low volatility particularly in the third quarter.

In this context, the Company's financial performance was negatively affected. The financial indices dropped significantly relative to 2011, a year in which Vale

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(2) Adjusted EBITDA excluding non-recurrent effect.

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reached its best financial performance since it was established in 1942. In 2012, the net profit reached R\$ 9.4 billion(3), against R\$ 37.4 billion in 2011, and in 2012 the adjusted EBIDTA was R\$ 37.3 billion(4), thus reduced by 33.6%, although it is still the third largest annually adjusted EBIDTA in the Company's history. The reduction came primarily from lower 2012 prices, which had a negative impact of R\$ 22.8 billion on the EBIDTA.

In 2011, Vale had strong performance, characterized by net operating revenues (R\$ 100.6 billion), operating income (R\$ 50.45 billion), and operating margin (50.2%).

In 2013 and 2012, Vale delivered to its shareholders dividends in the amount of US\$ 4.5 billion and US\$ 6.0 billion, respectively, and the 2012 amount was the second largest in the Company's history.

Bulk materials sales – iron ore, pellets, manganese ore and ferroalloy, thermal and metallurgical and coal – represented 76.7% of total net operating revenues in 2012, after the general load was discontinued in 2013, relative to 76% in 2012, after the general load was discontinued. In contrast, in 2011, bulk materials represented 77.7% of our total net operating revenue.

Basic metals participation in the total net revenue was 15.5%, after discontinuation of the general load in 2013, relative to the 15.3%, after discontinuation of general load in 2012. In turn, in 2011, the participation was 15.4%.

Fertilizer revenue was 6.0%, after discontinuation of the general load in 2013, relative to 7.7%, after discontinuation of the general load in 2012. In 2011, fertilizer revenue was 5.5%.

Other products represent 1.98% of the 2013 total operating net revenue, relative to 1.0% in 2012. In 2011, the contribution was 1.4%.

Business segments	Fiscal year end on December 31		
	2011	2012	2013
Bulk Materials	77.7%	76%	76.7%
Basic Metals	15.4%	15.3%	15.5%
Fertilizers	5.5%	7.7%	6.0%
Others	1.4%	1.0%	1.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

(3) Net profits excludes non-cash and non-recurrent effects

(4) Adjusted EBIDTA excluding non-recurrent effects.



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In 2013, operating profit, measured by the adjusted EBIT(5) reached R\$ 38.238 billion, 35.2% more than the R\$ 28.276 billion in 2012. In 2011, the adjusted EBIT(6) was R\$ 48.032 billion.

The operating margin reached 37.7% in 2013, relative to 19.6% in 2012. In 2011, the operating margin was 47.8%.

In 2013, the Company's adjusted EBITDA(7) was R\$ 49.027 billion, 31.3% larger than 2012's R\$ 37.337 billion. In 2011, Vale's adjusted EBITDA(8) was R\$ 56.251 billion.

**Adjusted EBITDA**

In R\$ Billion	Fiscal year end on December 31		
	2011	2012	2013
Net Operating revenue	00.556	91.269	01.490
Adjusted EBIT	48.032(1)	28.276(1)	38.238(1)
Adjusted EBITDA	56.252(1)	37.337(1)	49.027(1)
Net profit (loss) of the term/year	7.420	9.391	0.258
Remuneration to shareholder (parent company)	14.960	1.596	9.319

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(1) Excludes non-recurring effects

**EBITDA**

In R\$ billions	Fiscal year end on December 31		
	2011	2012	2013
Net profit (loss) for the term/year	37.420	9.391	(0.258)
Tax on profits	8.504	2.595	15.249
Net finance results	6.318	6.352	8.405
EBIT (Earnings Before Income and Taxes)	52.242	15.035	33.433
Depreciation, amortization, and depletion	6.453	8.129	8.958
EBITDA (Earnings Before Income, Taxes, Depreciation, and Amortization)	58.695	23.164	42.386

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(5) EBIT excluding non-recurrent effects.

(6) EBIT excluding non-recurrent effects.

(7) Adjusted EBITDA excluding non-recurrent effect.



(8) Adjusted EBITDA excluding non-recurrent effect.

Table of Contents**Adjusted EBITDA reconciliation**

In R\$ billions	Fiscal year end on December 31		
	2011	2012	2013
EBIT	52.242	15.035	33.433
Depreciation, amortization and depletion	6.453	8.129	8.953
EBITDA	58.695	23.164	42.386
Results from share participation in associated companies	(1.857)	(1.241)	(0.999)
Dividends	1.766	0.932	1.836
Gain(loss) in assets sales	(2.492)	1.036	0.410

In R\$ billions	Fiscal year end on December 31		
	2011	2012	2013
Reduction in noncurrent assets recoverable value ( <i>Impairment</i> )		12.213	5.390
CFEM		1.100	
Loss from phased out operations	0.139	0.133	0.004
Adjusted EBITDA	56.251	37.337	49.027
Depreciation, amortization and depletion	(6.453)	(8.129)	(8.953)
Dividends	(1.766)	(0.932)	(1.836)
Adjusted EBIT	48.032	28.276	38.238

**b. Capital Structure**

On December 31, 2013, 2012 and 2011, our equity was R\$ 152.121 billion, R\$ 152.909 billion and R\$ 145.382 billion; our gross debt added was R\$ 68.977 billion, R\$ 61.856 billion and R\$ 43.072 billion, and our cash position was R\$ 12.465 billion, R\$ 11.918 billion, and R\$ 6.593 and our gross debt index and obligations with third parties /shareholders equity and participation of non-controlling shareholders was 45.5%, 40.4%, and 29.6%.

**i. Hypotheses of Redemption****ii. Redemption Value Method**

Our by-laws do not authorize the application of profits or reserves to redeem or amortize shares. Additionally, on the date of this Reference Form, our Management does not intend to call a Special Shareholders Meeting for this purpose.

**c. Payment Capacity in Relation to the Financial Commitments Assumed**

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(1) Vale enjoys a healthy financial position, supported by strong cash generation, ample liquidity, availability of short- and long-term credit facilities, and a portfolio of debt with low risk. This position gives us the capacity to easily pay our financial commitments.

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(2) The leverage, measured by the gross debt/adjusted(9) EBITDA, showed reduction, as the following table illustrates:

In R\$ billions	Fiscal year end on December 31		
	2011	2012	2013
<b>Operating Income - EBIT</b>	<b>52,242</b>	<b>15,035</b>	<b>33,433</b>
Depreciation/ Amortization	6,453	8,129	8,953
<b>EBITDA</b>	<b>58,695</b>	<b>23,164</b>	<b>42,386</b>
Results from share participation in associated companies	(1,857)	(1,241)	(0,999)
Dividends received	1,766	0,932	1,836
Gain (loss) in measurement from noncurrent assets sales	(2,492)	1,036	0,410
Measurement loss and reduction in assets recoverable value (Impairment)		12,213	5,390
CFEM		1,100	
Loss from phased out operations	0,139	0,133	0,004
<b>Adjusted EBITDA</b>	<b>56,251</b>	<b>37,337</b>	<b>49,027</b>
Gross debt	43,072	61,856	68,977
Leverage (measure by the gross debt/adjusted EBITDA ration)	0,8	1,7	1,4

(3)

(4)

(5) For more information on the EBITDA and adjusted EBITDA reconciliation, see item 10.1(a) above.

(6) The gross debt/EV(10) ratio was 34.8% on December 31, 2013, compared to the 22.4% from December 31, 2012, while the index of interest coverage, measured by the indicator EBITDA/payment of interest, was 13.8 on December 31, 2013 and 14.5x on December 31, 2012.

(7)

In R\$ Billion	on December 31		
	2011	2012	2013
Gross debt	43,072	61,856	68,977
Cash position *	6,593	11,918	12,465
Net debt	36,479	49,938	56,512

\* Includes cash and cash equivalent with maturity up to 90 days.

**d. Source of financing for working capital and investments in non-current assets**

The sources of funds utilized by Vale were generation of operating cash, loans and financing, and issue of bonds and securities, convertible or not, launched in the capitals market.

Operating activities from continuing operations generated cash flows of R\$ 31.876 billion in 2013, compared with R\$ 31.143 billion in 2011, and R\$ 39.183 billion in 2011. Operating cash flows grew significantly in recent years until 2008, driven by the growth in sales volume and by the high of prices of our products. In 2009, this cycle of growth was interrupted as a result of negative effects of the global recession on the prices and volumes of sales. In 2010, growth was resumed and the strong recovery of demand reflected positively on

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(9) Excluding non-recurrent items

(10) EV, *enterprise value*, equals the sum of the company's market capitalization with the net debt.

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the price. Performance in 2011 was driven by higher prices and by the recovery of volumes sold. In 2012, reduction was determined mainly by price drops. In 2013, operating cash flow suffered variation mainly due to the gold stream operation outsourced in February 2013 with Silver Wheaton Corp. ( SLW ) to sell 70% of the payable gold flows produced as a byproduct in the nickel mines in Sudbury Coleman, Cooper Cliff, Creighton, Garson, Stobie, Totten and Victor for a 20 year term, and with Silver Wheaton (Caymans) Ltd. to sell 25% of the payable gold flows produced as a by-product in the copper mine in Salobo for the longevity of the mine.

Among other more relevant operations in the three-year period, the following are highlighted:

- In December 2013, Vale issued R\$ 650 million in export credit notes from Brazilian commercial banks with maturity in 2023. The amount was fully paid until December 31, 2013.
- In October, November and December 2013, Vale acquired export pre-payments with maturity in five and seven years, linked to future sales, totaling US\$ 1.4 billion (equivalent to R\$ 3.2 billion).
- In July 2013, Vale acquired a new revolving credit facility in the amount of US\$ 2.0 billion (equivalent to R\$ 4.7 billion), with a five year maturity in a best effort transaction.
- In July 2013, Vale signed a financing contract with Banco Safra, a BNDES financing agent, in the amount of R\$ 109.3 million. This contract is for the purchase of domestic equipment. On December 31, 2013, R\$ 87.4 had been paid from this contract.
- In October 2012, Vale issued an export credit note in the amount of R\$ 2.5 billion from a Brazilian commercial bank that has a 10 year maturity. The amount was fully paid on December 31, 2012.
- In October 2012, Vale Fertilizantes signed a new contract with BNDES in the amount of R\$ 88.6 million. This contract was to supplement resources in the project for the expansion of phosphoric and sulfuric acid production capacity at the industrial plant located in Uberaba (MG) Phase III , as well as for the expansion of the phosphate concentrate production capacity in Tapira (MG) and Catalão (GO).
- IN September 2012, Vale priced the offer of US\$ 1.5 billion (equivalent to R\$ 3.5 billion) in bonus. The bonus has a 5.625% coupon per year, paid every six months, and they were prices at 99.198% of the bond s face value. The bonus matures in September 2042 and they were issued with a 300 points base spread over US Treasury bonds, resulting in a performance of 5.681% per year to the investor.
- In September 2012, BNDES approves a financing contract in the amount of R\$ 3.9 billion to Vale, to implement the CLN 150 Mtpa project, whose purpose is to expand to 150 million tons per year the transport and shipping capacity of iron ore in Vale s Northern System, which

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includes the Carajás Railroad (EFC) and the railroad and maritime terminals in Ponta da Madeira, in the states of Pará and Maranhão. The financing payments will follow the projects execution schedule. On December 31, 2013, Vale had paid US\$ 1.0 billion (equivalent to R\$ 2.3 billion) from this line of credit.

- In August 2012, Vale International signed a pre-paid export contract with a commercial bank in the amount of US\$ 150 million (equivalent to R\$ 2.3 billion), with maturity 5 years after payment. On December 31, 2013, Vale International had fully paid the line.
- In July 2012, Vale priced the offer of 750 million (equivalent to R\$ 2.4 billion in 10.5 years bonus). Vale will used net resources from this offer for general corporate purposes. The notes maturing in 2023, the amount of 750 million (equivalent to R\$

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2.4 billion) have a 3.75% coupon per year, paid annually, and they were price at 99.608% of the bond's face value. The bonus matures on January 10, 2023 and they were issued with an 180 base point spread on the mid-swap, or with a 225.7 base point spread on the return of German Bund bonds, resulting in a performance of 3.798% per year for the investor.

- In April 2012, Vale priced the bonus offer from its full subsidiary Vale Overseas Limited (Vale Overseas) at US\$ 1.250 billion (equivalent to R\$ 2.9 billion), guaranteed by Vale. The bonus were consolidated in a single series with Vale Overseas bonus issued on January 11, 2012, at US\$ 1.0 billion (equivalent to R\$ 2.3 billion) with a 4.375% coupon and maturity in 2022. The bonus issued in April will have a 4.375% coupon per year, paid every six months, at a price that is 101.345 % of the bond's face value. These bonus mature in January 2022 and they were issued with a 200 base-point spread on US Treasury bonds, resulting in a performance of 4.205% per year for the investor.

- In January 2012, Vale priced the bonus offer from its full subsidiary Vale Overseas Limited (Vale Overseas) at US\$ 1.0 billion (equivalent to R\$ 2.3 billion). The bonus have a 4.375% coupon per year, paid every six months, at a price that is 98.804 % of the bond's face value. These bonus mature in January 2022 and they were issued with a 255 base-point spread on US Treasury bonds, resulting in a performance of 4.525% per year for the investor.

- In August 2011, Vale signed a contract with commercial banks with the support of the Korean Trade Insurance Corporation (K-SURE), to finance the purchase of five large iron ore vessels and two capsize ships. The total amount contracted was US\$ 528 million (equivalent to R\$ 1.2 billion) and the resources will be paid based on the ships' delivery. On December 31, 2013, Vale had paid US\$ 432 million (equivalent to R\$ 1.0 billion) from the line of credit, but the remainder of the line of credit was canceled on December 31, 2012.

- In March 2011, Vale signed a financing contract with BNDES in the total amount of R\$ 102.6 million. The purpose of this contract was to finance the purchase of domestic equipment. On December 31, 2013, the amount had been fully paid.

- In January 2011, Vale signed an agreement with some commercial banks, guaranteed by an official Italian credit agency, Servizi Assicurativi Del Commercio Estero S.p.A. (Sace), to obtain a line of credit in the amount of US\$ 300 million (equivalent to R\$ 703 million) for 10 years. The full amount from this line of credit was used by Vale in 2011.

**e. Potential sources of financing used for working capital and for investments in non-current assets for coverage of liquidity deficiency**

In the regular course of business, Vale's principal need for funds refers to capital investments, payments of dividends and debt service. The sources of funds frequently used are operating cash flow and financing.

Moreover, the main sources of financing to cover liquidity deficiency are the facilities related to the export transactions offered by local banks (Advance on Foreign Exchange Contract - ACCs, and Advance on Delivered Exchange Instruments - ACEs).



Vale has, moreover, revolving lines of credit available that may be used at the option of the debtor. In 2013, Vale obtained another revolving line of credit in

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the amount of US\$ 32.0 billion (equivalent to R\$ 4.7 billion), with maturity period of 5 years, totaling, in lines of this type, available on December 31, 2013, \$US\$ 5.0 billion (equivalent to R\$ 11.7 billion), that may be

used by Vale, Vale Canada Ltd. (Vale Canada), and Vale International S.A. (Vale International). By December 31, 2012, Vale had not used any of this available credit.

**f. Indebtedness levels and composition of such debts**

On December 31, 2013, the total debt was R\$ 68.977 billion, with a tranche of R\$ 3.410 billion guaranteed by Vale's assets, with an average maturity period amortization of 9.89 years and an average cost of 4.6% per year in US dollars.

DEBT STRUCTURE In R\$ billion	ON DECEMBER 31,		
	2009	2010	2011
Gross debt	43.072	61.856	68.977
Tranche guaranteed by assets of Vale	4%	5%	5%
Average term of amortization (in years)	9.8	10.14	9.89
Average cost (in US dollars)	4.8%	4.6%	4.6%

Since July 2005, Vale has been considered investment grade. Vale currently has the following credit risk ratings: A- (Standard & Poor's), Baa2 (Moody's), BBB high (Dominion Bond Ratings) and BBB+ (Fitch).

**i. Relevant loan and financing contracts**

Short-term debt consists principally of financing for exports (trade financing) and imports expressed in US dollars, with financial institutions. There was no open short-term debt on December 31, 2013, 2012 or 2011.

The most important categories of the long-term debt are presented below. The values presented include the short-term portion of the long-term debt and exclude the accumulated costs.

- *Loans and financing expressed in US dollars (R\$ 11.7 billion, R\$ 8.1 billion, and R\$ 6.0 billion on December 31, 2013, 2012, and 2011, respectively).* These loans include credit facilities for exports, financing imports from the export credit agencies and loans from commercial banks and multilateral organizations.

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- *Fixed income instruments expressed in US dollars (R\$ 32.4 billion, R\$ 27.86 billion, and R\$ 19.1 billion on December 31, 2013, 2012 and 2011, respectively).* Vale issued several debt securities in the capital market, inclusive through its wholly owned subsidiary Vale Overseas in the total amount of US\$ 12.8 billion (equivalent to R\$ 430.0 billion). The subsidiary Vale Canada issued debt securities in the amount of US\$ 700 million (equivalent to R\$ 1.6 billion).

- *Fixed income instruments in euros (R\$ 4.8 billion, R\$ 4.0 billion and R\$ 1.8 billion on December 31, 2013, 2012 and 2011, respectively).* Vale issued debt securities in the capital market in the total amount of 1.5 Billion (equivalent to R\$ 4.8 billion).

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- *Non-convertible debentures expressed in reais (R\$ 0.9 billion, R\$ 4.8 billion, and R\$ 4.7 billion on December 31, 2013, 2012, and 2010, respectively).* The balances were mainly made up of issuances dated November 2006 in the amount of approximately US\$ 2.3 billion (equivalent to R\$ 5.5 billion). The first series, of this issue, in the amount of US\$ 640 million (equivalent to R\$ 1.5 billion), expired in 2010. The second series of US\$ 1.7 billion (equivalent to R\$ 4.0 billion), matured in 2013.

**ii. Other long-term relationships with financial institutions**

Vale and its associated and subsidiary companies have a commercial relationship in the normal course of their business with some of the main financial institutions in the country, according to regular financial market practices.

Other debts totaled R\$ 18.1 billion, R\$ 16.3 billion, and R\$ 10.8 billion on December 31, 2013, 2012 and 2010, respectively. The Company has several loans contracted in Brazil, especially with the BNDES and some Brazilian private banks, in addition to loans and financing in other currencies. (1)

**iii. Degree of subordination among debts**

There is no degree of contractual subordination among the Company's unsecured financial debts. Financial debts that are secured through collateral have the privileges and prerogatives granted by the law.

Additionally, considering the total of current and non-current liabilities of the Company, the R\$ 136.350 million or 97.6 %, corresponded to unsecured debts on December 31, 2013 (compared to R\$ 110.964 billion OR 97.4% on December 31, 2012 and R\$ 89.8332 billion, or 97.9% on December 31, 2011). Such amounts are subject to the preference of Company obligations that appear as collateral, including mortgage of assets totaling, on December 31, 2013, R\$ 3.410 or 2.4 % of the total of current and non-current liabilities of the Company, relative to the amount of R\$ 2.963 million or 2.6% on December 31, 2012 and R\$ 1.902 billion or 2.1% on December 31, 2011

**iv. Any restrictions that might be imposed on the issuer in particular, in relation to limits of indebtedness and contracting the company's debts, the distribution of dividends, the disposal of assets, the issue of new securities and the transfer of corporate control**

Some long-term financial instruments contain obligations related compliance with financial indicators. The main indicators are: (i) debt on Earnings Before Interest Tax, Depreciation and Amortization (EBITDA), and (ii) interest coverage. Vale is in conformity with the levels required for the indicators. It is believed that the current clauses will not significantly restrict the capacity to contract new debts to meet capital needs. Additionally, no clause directly restricts the ability to distribute dividends or interest on own equity. For more information on these financial indices, please see item 3.7 of this Reference Form



Table of Contents**g. Limits of use of financing already contracted**

Infrastructure debentures issues by the Company and certain financing contracts signed by Vale establish restrictions in connection with the use of funds. The following is a description of the relevant infrastructure debentures and financing contracts:

<b>Date</b>	<b>Counterparty</b>	<b>Allocation</b>	<b>Value</b>	<b>Percentage Used</b>	<b>Disbursement of funds</b>
01/15/2014	N/A	Used in the reimbursement of spending, expenses and/or debt related to the Southeastern Railroad Branch of the Pará Project (RFSP)	R\$ 1.0 billion	0%	The entire infrastructure debentures issued by the Company have already been subscribed and paid
12/27/2013	BNDES	Financing for the Tecored Investment Plan	R\$ 136.7 million	0%	Credit is provided in tranches according to the project schedule
06/15/2013	Banco J. Safra	Financing for equipment	R\$ 109.31 million	80%	Credit is provided in tranches according to the project schedule
10/19/2012	BNDES	Financing for Vale Fertilizantes Project	R\$ 88.63 million	100%	Credit is provided in tranches according to the project

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				schedule
09/24/2012	BNDES	Financing for CLN150 Project	R\$ 3.88 million	79% Credit is provided in tranches according to the project schedule
8/04/2011	Banco Bilbao Viscaya, Banco Santander, BNP Paribas, Citibank Europe, Credit Agricole, HSBC, Natixis, and Soci�t� Generale	Financing for the acquisition of ships with the Korean shipbuilders Daewoo and Sungdong	R\$ 1.079 billion	82% The credit was provided in tranches according to the ship delivery schedule, and the remaining unused balanced was cancelled
9/09/2010	Exim Bank of China Limited	Financing for the acquisition of ships from the shipbuilder Rongsheng	R\$ 2.511 billion	80% The credit is provided in tranches according to the schedule of payments contemplated in the construction contract
4/01/2008	BNDES	investments made in Brazil	R\$ 7.3 billion	63% The credit is provided in tranches according to the project schedule

Table of Contents**h. Significant alterations in each item of the financial statements****Analysis of Operating Results, 2013 vs. 2012**

The table below presents the values for the consolidated income statements for the fiscal years ended December 31, 2012 and December 31, 2013:

(in R\$ billions)	End of fiscal year on December 31		2013	AV (%)(1)	Variation (%) (2012 x 2013)
	2012	AV (%) (1)			
<b>Income Statement</b>					
<b>Net Operating Revenues</b>	91,269	100,0	101,490	100,0	11,2
Cost of products and services	(49,832)	(54,6)	(52,511)	(51,7)	5,4
Administrative and sales expenses	(4,249)	(4,7)	(2,804)	(2,8)	(34,0)
Research and development	(2,886)	(3,2)	(1,745)	(1,7)	(39,5)
Pre-operational and shutdown operation	(3,145)	(3,4)	(4,035)	(4,0)	28,3
Other net operating expenses	(3,981)	4,4	(2,157)	(2,1)	(45,8)
Reduction of noncurrent assets recoverable value	(8,211)	(9,0)	(5,390)	(5,3)	34,4
Gain (loss) in the measurement or noncurrent assets sale	(1,036)	(1,1)	(0,508)	(0,5)	(51,0)
<b>Operating Revenues</b>	17,929	19,6	32,340	31,9	80,4
Result of corporate participations	1,241	1,4	0,999	1,0	(19,5)
Result of disposal of shares in joint ventures and associated companies		n/a	0,098	0,1	n/a
Net financial result	(8,239)	(9,0)	(18,442)	(18,2)	123,8
Reduction of investments recoverable value	(4,002)	(4,4)		n/a	n/a
<b>Income before income tax and social contribution</b>	6,929	7,6	14,995	14,8	116,4
Taxation on profits	2,595	2,8	(15,249)	(15,0)	(487,6)
Losses from discontinued operations	(0,133)	(0,1)	(0,004)		(97,0)
<b>Net income (loss) in the year</b>	9,391	10,3	(0,258)	(0,2)	(102,7)

(1) Relative to the net operating revenue



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**Year ending on December 31, 2012 compared to the year ended on December 21, 2013**

*Revenues*

The net operating revenue reached R\$ 101.940 billion in 2013, compared to R\$ 91.269 billion in 2012, corresponding an 11.2% increase. The revenue growth was mainly due to increase in volume and price of iron ore, metallurgic coal and basic metals.

*Mineral Ore*

Mineral ore sales revenue increased by 15.7%, from R\$ 52.959 billion in 2012 to R\$ 61.271 billion in 2013, mainly due to price recovery and volume sold.

*Pellets*

Pellets save revenue increased 1.5%, from R\$ 12.778 billion in 2012 to R\$ 12.972 billion in 2013, due to better pellet. Pollution concerns in China is making the metallurgic industry increase their installed capacity use, to phase out some of the inefficient plants, and reduce the sintering and pelleting capacity. These measure increased demand for higher quality iron ore, ore lump and pellets starting in 2013's second semester. Consequently, premium lumps and pellets reached high prices at the end of 2013 and they shall remain high in 2014

*Manganese ore and Ferroalloys*

Sales revenue from manganese ore and ferroalloys increased 8.1%, from R\$ 1.055 billion in 2012 to R\$ 1.140 billion in 2013. Manganese sales revenue increase due to greater volume and prices. Ferroalloy sales revenue was slightly lower due to volume drops are the sale of the European operations (Dunkerque and Mo I Rana) concluded at the end of 2012 as well as lower prices.

*Coal*

Coal sales revenue increased by 3.7%, from R\$ 2.109 billion in 2012 to R\$ 2.188 billion in 2013, due to increased sales volume, caused by the ramp-up at Moatize, a coal mine in Mozambique, and due to a significant improvement in person and by Carborough Down's significant performance improvement (a coal operation in Australia, )



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*Basic Metals*

*Nickel and other products*

There was a 7.8% increase in these products' revenue, from R\$ 11.656 billion in 2012 to R\$ 12.566 billion in 2013, mainly due to increased nickel sales volume.

*Copper*

Copper sales revenue increased by 39.7%, from R\$ 2.277 billion in 2012 to R\$ 3.180 billion in 2013, due to increased sales volume increase resulting from Salobo's ramp-up, a copper operation in Brazil.

*Fertilizers*

*Potash*

Potash sales revenue decreased by 23.7%, from R\$ 569 million in 2012 to R\$ 434 million in 2013, due to a drop in sales volume and price as the result of less demand due to the fertilizer global market's weak conditions.

*Phosphates*

Phosphates sales revenue decreased by 9.8%, from R\$ 1.366 billion in 2012 to R\$ 0.99 billion in 2013, partly due to sales volume and price drop resulting from the fertilizer global market's weak conditions.

*Nitrogen*

Nitrogen sales revenues dropped 27.5%, from R\$ 1.366 billion in 2012 to R\$ 0.990 billion in 2013, partially due to the Araucária share sale in 2013's second quarter.

*Other products and services*

Sales revenue for other products and services increased by 92.9%, from R\$ 959 million in 2012 to R\$ 1.850 million in 2013.

***Costs of Products and Services***

Costs related to services and goods sold by Vale are detailed below:

*Comments on Cost by Type of Product*

The total cost of products and services totaled R\$ 52.511 billion in 2013, compared with R\$ 49.832 billion in 2012, an increase of 5.4%.

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- *Outsourced services.* The cost of outsourced services decreased 9.1% in 2013, from R\$ 9.079 billion in 2012, to R\$ 8.251 billion in 2013, mainly reflecting contract renegotiations with suppliers.
- *Materials costs.* Materials costs increased 7.6%, from R\$ 8.264 billion in 2012, to R\$ 8.894 billion in 2013, mainly due to maintenance expenses in Sudbury.
- *Costs of energy and fuels.* Energy and fuel costs decreased 3.1% in 2012, from R\$ 5.490 billion in 2012 to R\$ 5.319 billion in 2013, due to increased used of our own energy.
- *Personnel costs.* Personnel costs increased 5.7%, from R\$ 6.679 billion in 2012, to R\$ 7.060 billion in 2013, reflecting the 6% increase from the collective bargain with employees in Brazil.
- *Acquisition of products.* The cost of products purchased from third parties increased 12.3%, from R\$ 2.718 billion in 2012, to R\$ 3.051 billion in 2013, mainly due to the purchase of precious metals for processing at the Acton refinery.
- *Depreciation and depletion.* The cost of depreciation and depletion increased 12.3%, from R\$ 7.154 billion in 2012, to R\$ 8.031 billion in 2013, mainly due to new projects ramp-up.
- *Freight.* Freight cost increased 23.3%, from R\$ 5.660 billion in 2012 to R\$ 6.979 billion in 2013, mainly due to increased CFR sales.
- *Other costs.* Other costs increased 2.9%, from R\$ 4.788 billion in 2012 to R\$ 4,926 billion in 2013, mainly sure to new mining taxation in the States of Minas Gerais, Pará and Mato Grosso do Sul.

Sales and administrative expenses

Sales and administrative expenses decreased 424.0%, from R\$ 4.249 billion in 2012 to R\$ 2.804 billion in 2013, mainly due to making our organizational structure simples.

Research and development expenses

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Research and development expenses decreased 39.5%, from R\$ 2.866 billion in 2012 to R\$ 1.745 billion in 2013, mainly due to a reduction in our project portfolio and the closing of exploration offices worldwide.

### Asset impairment

In 2013 there was reduction in impairment in the amount of R\$ 5.390 billion. This reduction was mainly due to suspension of the Rio Colorado Project ( PRC ) in the amount of R\$ 4.963 billion and of the pelleting plants, reported

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to be in the amount of R\$ 427 million.] The 2012 reduction in 2012 in the amount of R\$ 8.211 billion refers mainly to estimate loss of R\$ 5.769 billion and in coal plants in Australia in the amount of R\$ 2.139 billion.

***Pre-operational expenses and operation shutdown***

In 2013, pre-operational expenses and operational shutdown summed up to R\$ 4.035 billion, an increase of R\$ 890 million relative to 2012, particularly due to greater expenses with the Rio Colorado and Long Harbour projects.

Other operating costs and expenses

Other operating expenses reduced 45.8%, from R\$ 3.981 billion in 2012, to R\$ 2.157 billion in 2013, mainly due to less contingencies and provisions made during the year, such as, the non-recurring impact of expenses with the Financial Offset for the Exploration of Mineral Resources (CFEM), which was R\$ 1.100 billion.

***Result from the sale of non-current assets held for sale***

Assets sales revenue decreased 51.0%, from R\$ 1.036 billion in 2012 to R\$ 508 million in 2013, due to losses in the Tres Valles sale; while in 2012, the results referred to Araucária sales loss.

***Result from Corporate Participations***

The result from corporate participations decreased 19.5%, from R\$ 1.241 billion in 2012 to R\$ 999 million in 2013, mainly due to performance drop at Samarco.

***Net Financial result***

The net financial expenses dropped 123.8% from R\$ 8.239 billion in expenses in 2012 to R\$ 18.448 billion in 2013, due to interest rates and fines from the Tax Recovery Program REFIS ( REFIS ).

***Reduction of the investments recoverable value***

There was no reduction of investments recoverable value in 2013. The reduction reported for 2012 in the amount of R\$ 4.002 billion had an impact on our investment in Norsk Hydro (R\$ 2.026 billion), on Thyssenkrupp CSA (R\$ 1.804 billion), and on the Vale Soluções em Energia (R\$ 172 million).

*Taxation on profits*

In 2013, we recorded a tax expense on net income of R\$ 15.249 billion, compared to R\$ 2.595 billion in 2012, basically due joining REFIS for the payment of sums relative to taxation on the profit from Vale's foreign subsidiaries and affiliated companies in 2013 and 2012.

*Net income attributed to controlling shareholders*

The reduction in net profit, from R\$ 9.391 billion in 2012 to the net loss of R\$ 258 million in 2013, resulted mainly from the previously mentioned factors.



Table of Contents**Analysis of equity accounts***In R\$ millions*

	2012	AV (%) (1)	2013	AV (%) (1)	Variation (%) (2012 x 2013)
<b>Current</b>					
<b>Assets</b>					
Cash and cash equivalents	11,918	4,5	12,465	4,3	4,4
Short-term investments	0,506	0,2	0,008	0	(98,4)
Derivatives financial instruments	0,575	0,2	0,471	0,2	(18,1)
Accounts Receivable	13,885	5,2	13,360	4,6	(3,8)
Related parties	0,786	0,3	0,611	0,2	(22,3)
Inventory	10,320	3,9	9,662	3,3	(6,4)
Taxes on estimated profit	1,472	0,6	5,563	1,9	277,9
Taxes to be refunded	3,148	1,2	3,698	1,3	17,5
Advances to suppliers	0,523	0,2	0,292	0,1	(44,2)
Others	1,973	0,7	2,151	0,7	9,0
Non-current assets held for sale	0,935	0,3	8,822	3,0	843,5
	<b>45,041</b>	<b>17,3</b>	<b>57,103</b>	<b>19,6</b>	<b>24,0</b>
<b>Non-current</b>					
Related Parties	0,833	0,3	0,253	0,1	(69,6)
Loans and financing	0,502	0,2	0,564	0,2	12,4
Legal deposits	3,095	1,2	3,491	1,2	12,8
Taxes on profits to be refunded	0,899	0,3	0,899	0,3	
Taxes on profits deferred	8,282	3,1	10,596	3,6	27,9
Taxes to be refunded	0,443	0,2	0,668	0,2	50,8
Derivatives financial instruments	0,093	0,0	0,329	0,1	253,8
Deposit for incentives and reinvestment	0,327	0,1	0,447	0,2	36,7
Others	1,000	0,4	1,730	0,6	73,0
	<b>15,474</b>	<b>5,8</b>	<b>18,977</b>	<b>6,5</b>	<b>22,6</b>
<b>Investments</b>	13,044	4,9	8,397	2,9	(35,6)
<b>Intangibles</b>	18,822	7,0	16,096	5,5	(14,5)
<b>Fixed Assets</b>	173,455	65,0	191,308	65,5	10,3
	<b>220,795</b>	<b>82,7</b>	<b>234,778</b>	<b>80,4</b>	<b>6,3</b>
<b>Total Assets</b>	<b>266,836</b>	<b>100,0</b>	<b>291,881</b>	<b>100,0</b>	<b>9,4</b>

*(1) Relative to asset total*

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	2012	AV (%) (1)	2013	AV (%) (1)	Variation (%) (2012 x 2013)
<b>Liabilities and shareholders equity</b>					
<b>Current</b>					
Accounts Payable to suppliers and contractors	9,255	3,5	8,837	3,0	(4,5)
Salaries and employment taxes	3,025	1,1	3,247	1,1	7,3
Derivatives financial instruments	0,710	0,3	0,556	0,2	(21,7)
Loans and financing	7,093	2,7	4,158	1,4	(41,4)
Related Parties	0,423	0,2	0,479	0,2	13,2
Taxes on profit Refinancing Program		n/a	1,102	0,4	n/a
Taxes to be refunded	0,664	0,2	0,766	0,3	15,4
Taxes on estimated profit	1,310	0,5	0,886	0,3	(32,4)
Pension and retirement benefits	0,420	0,2	0,227	0,1	(46,0)
Payable sub concessions	0,133	n/a		n/a	n/a
Asset retirement obligation	0,143		0,225	0,1	57,3
Other	2,168	0,8	0,985	0,3	(55,3)
	<b>25,344</b>	<b>9,5</b>	<b>21,468</b>	<b>7,4</b>	<b>(15,3)</b>
Liabilities related to non-current assets held for sale	0,345	0,1	1,050	0,4	184,6
	<b>25,689</b>	<b>9,6</b>	<b>22,518</b>	<b>7,8</b>	<b>(12,4)</b>
<b>Non-current</b>					
Derivatives financial instruments	1,601	0,6	3,496	1,2	118,4
Loans and financing	54,763	20,5	64,819	22,2	18,4
Related Parties	0,146		0,011		(92,5)
Pension and retirement benefits	6,762	2,5	5,148	1,8	(22,3)
Legal provisions	4,218	1,6	2,989	1,0	(29,1)
Taxes on profit Refinancing Program		n/a	15,243	5,2	n/a
Taxes on profits deferred	7,001	2,6	7,562	2,6	229,7
Provision for asset retirement	5,472	2,1	5,969	2,0	9,1
Participation Debentures	3,379	1,3	4,159	1,4	23,1
Non-controlling shareholders redeemable share	0,995	0,4	0,646	0,2	(35,1)
Others	3,901	1,5	7,200	2,5	84,9
	<b>88,238</b>	<b>33,0</b>	<b>117,242</b>	<b>40,1</b>	<b>33,9</b>
<b>Shareholders Equity</b>					
Class A preferred shares [200,000,000] authorized shares with no nominal value and 2,108,579,618 issued (2012 2,108,579,618)	29,475	11,0	29,475	10,1	
Common shares [3,600,000 authorized shares, no nominal value and 3,256,724,482 issued (2012 3,256,724,428)]	45,525	17,1	45,525	15,6	
Treasury shares [140,857,692 preferred shares (2012 140,857,692) and 71,071,482 common shares (2012 71,071,482)]	(7,838)	(2,9)	(7,838)	(2,7)	
Operating results with non-controlling shareholders	(0,840)	(0,3)	(0,840)	(0,3)	
Result from share conversion/issuance	50		50		
Equity valuation adjustment	(4,176)	(1,6)	(2,815)	(1,0)	(67,4)
Accumulated conversion adjustment	9,002	3,4	15,527	5,3	72,5
Accumulated profits	78,466	29,5	69,262	23,8	(11,7)
Total controlling shareholders equity	149,664	56,2	148,346	50,8	(1,0)
Non-controlling shareholders interest	3,245	1,2	3,775	1,3	(1,5)
<b>Total equity</b>	<b>152,909</b>	<b>57,4</b>	<b>152,121</b>	<b>52,1</b>	<b>(1,0)</b>
<b>Total liabilities and equity</b>	<b>266,836</b>	<b>100,0</b>	<b>291,881</b>	<b>100,0</b>	<b>9,4</b>



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*(1) Relative to total liabilities and shareholders' equity*

**Position on December 31, 2012 compared with the position on December 31, 2013**

Vale has assets and debts referenced to different currencies, the main ones being the *real*, the US dollar and the Canadian dollar. On December 31, 2013, the Company had 54% of assets related to Brazilian *reals* 9% to US dollars, 18% to Canadian dollars and 19% to other currencies, while the majority of our debt was expressed in US dollars. Consequently, the effects of changes in exchange rates had an impact on the financial statements, especially the depreciation of the *real* by 14.6 % against the US dollar between December 31, 2012 and December 31, 2013.]

***Current Assets***

*Cash and cash equivalents.*

The 4.6% increase, from R\$ 11.918 billion on December 31, 2012 to R\$ 12.465 billion on December 31, 2013, occurred as a function of the gold stream operation with gold and resources from asset disposal, partially offset by REFIS payment.

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*Short-term investments.*

The 98.4% reduction, from R\$ 506 million on December 31, 2012 to R\$ 80 million on December 31, 2013, resulted from bonds maturing in 2013.

*Inventories*

The 6.4% decrease in inventories, from R\$ 10.320 billion on December 31, 2012 to R\$ 9.662 billion on December 31, 2013, was due to the operating cycle.

*Taxes on estimated profit*

There was a 277.9% increase on taxes on estimated profit, from R\$ 1.472 billion on December 31, 2012 to R\$ 5.563 billion on December 31, 2013, reflecting values to be recovered from losses suffered by companies abroad.

*Non-current assets held for sale and phased out operations*

Assets sales totaled R\$ 8.822 billion on December 31, 2013, reflecting the disposal of energy generation assets and general load, compared to R\$ 935 million from December 31, 2012, relative to the Araucária disposal.

*Non-current assets*

*Deferred taxes on profits*

The amount of deferred taxes on profits reported increased 27.9%, from R\$ 8.282 billion on December 31, 2012 to R\$ 10.596 billion on December 31, 2013, due to reported differences relative to share debentures, derivatives, and interest rates equalization on equity.

*Investments*

Investments dropped 35.6%, from R\$ 13.044 billion on December 31, 2012 to R\$ 8.397 billion on December 31, 2013, reflecting the final lock-up period for the Norsk Hydro share renegotiation. From this date, the Norsk Hydro shares may be traded in the market, and for this reason we stopped calculating the equity equivalence for this share, as it is not treated as a financial asset available for sale.

*Fixed assets*

The 10.3 % increase in fixed assets, from R\$ 173.455 billion on December 31, 2012 to R\$ 191.308 billion on December 31, 2013, occurred due to Capex execution, mainly of the S11D project.

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***Current liabilities***

*Accounts payable to suppliers and contractors*

The 4.5% reduction in accounts payable to suppliers and contractors, from R\$ 9.255 billion on December 31, 2012 to R\$ 8.837 billion on December 31, 2013, was basically due to payments made during the term.

*Portion of liabilities of long-term loans*

The 41.4% reduction in the portion liabilities of long-term loans, from R\$ 7.093 billion on December 31, 2012 to R\$ 4.158 billion on December 31, 2013, was due to -long-term loans- maturing in 2013.

*Liabilities related to non-current assets held for sale and phased out operations*

Liabilities related to non-current assets held for sale increased 184.6%, from R\$ 345 million on December 31, 2012 to R\$ 1.050 billion on December 31, 2013, due to the sale of the energy and general load in 2013.

***Non-current liabilities***

*Derivatives financial instruments*

The increase in derivatives financial instruments was 118.4%, from R\$ 1.601 billion on December 31, 2012 to R\$ 3.496 billion on December 31, 2013, basically due to the appreciation of the American dollar against the *real*, with a loss in the swaps market, whose purpose is to reduce cash flow volatility.

*Loans and financing*

The increase in loans and financing was 18.4%, from R\$ 54.763 billion on December 31, 2012 to R\$ 64.819 billion on December 31, 2013, reflecting the exchange rate variation, since a considerable share of the loans were retained in foreign currency.

*Provisions for contingencies*

Provisions for contingencies was reduced to 29.1%, from R\$ 4.218 billion on December 31, 2012 to R\$ 2.989 billion on December 31, 2013, reflecting the REFIS agreements.

*Provision with obligations for asset retirement*

The reduction of 9.1% in provisions with obligation for asset retirement, from R\$ 5.472 billion on December 31, 2012 to R\$ 5.969 billion on December 31, 2013, was due to -the annual review of the estimates.



Table of Contents*Shareholder Debentures*

The 23.1% increase of shareholder debentures, from R\$ 3.379 billion on December 31, 2012 to R\$ 4.159 billion on December 31, 2013, refers to these bonds mark to market.

*Shareholders Equity of Controlling Shareholders*

The shareholders equity of the controlling shareholders decrease 1.0%, from R\$ 149.664 billion on December 31, 2012 to R\$ 148.346 billion on December 31, 2013, as a result of conversion accrued adjustments.

**Analysis of Operating Results, 2012 vs. 2011**

The table below presents the values for the consolidated income statements for the fiscal years ended December 31, 2011 and December 31, 2012:

	2011	AV(1)(%)	2012	AV (%)(1)	Variation (%) (2011 vs. 2012)
<b>Income Statement</b>					
<b>Net Operating Revenues</b>	100.556	100.0	91.269	100.0	(9.2)
Cost of products and services	(41.033)	(40.8)	(49.832)	(54.6)	21.4
Administrative and sales expenses	(3.894)	(3.9)	(4.249)	(4.7)	9.2
Research and development	(2.817)	(2.8)	(2.886)	(3.2)	2.4
Other net operating expenses	(4.780)	(4.8)	(7.126)	(7.8)	49.1
Reduction in noncurrent assets recoverable value		n/a	(8.211)	(9.0)	n/a
Gain (loss) in the measurement of noncurrent assets held for sale	2.492	2.5	(1.036)	(1.1)	n/a
<b>Operating Profit</b>	50.524	50.2	17.929	19.6	(141.6)
Result of corporate participations	1.857	1.9	1.241	1.4	(33.2)
Net financial result	(6.318)	(6.3)	(8.239)	(9.0)	30.4
Reduction of investments recoverable value		n/a	(4.002)	(4.4)	n/a
<b>Income before income tax and social contribution</b>					
	46.063	45.8	6.929	7.6	(85.0)
Taxes on profits	(8.504)	45.8	6.929	7.6	(85.0)
Net loss from discontinued operations attributable to controlling shareholders	(0.139)	(8.45)	2.595	2.8	n/a
<b>Net Income attributable to controlling shareholders</b>	37.420	37.2	9.361	10.3	(75.0)



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**Revenues**

Net operating revenues were R\$ 91.269 billion in 2012, compared with R\$ 100.556 billion in 2011, a 26.5% decrease over 2011.

In 2011, the increase in revenues was basically due to the higher volume sold, which contributed to the increased revenues with R\$ 17.981 billion.

*Iron ore*

Revenues from sales of iron ore dropped 13.2%, from R\$ 61.959 billion in 2011 to R\$ 52.913 billion in 2012, due to a decrease in the average sale price.

*Pellets*

Revenues from pellet sales dropped 3.47%, from R\$ 13.270 billion in 2011, to R\$ 12.778 billion in 2012, due to 11.0% drop in market prices; the same effect was observed for iron ore, which was partially offset by the 8.4% increase in volumes sold as the result of operations ramp-up in Omã s Vale..

*Manganese ore and ferroalloy*

Revenues from manganese and ferroalloy sales decreased 5.6%, from R\$ 1.118 billion in 2011 to R\$ 1.055 billion in 2012. Since the sales of ferroalloy operations in Euro, manganese sales to these locations started being reported, thus, manganese volumes increased 69.1% and ferroalloys dropped to 30.8%.

*Coal*

Coal sales revenue increased 17.5%, from R\$ 1.795 billion in 2011 to R\$ 2.109 billion in 2012, due to a 4.2% increase in volumes sold as a result of increased production in Mozambique, partially offset by assets sales in Colombia. The increase of 13.3% in average sale price was due to an increase in metallurgic coal sales volume, resulting from the Mozambique mine development and thermal coal assets sale in Colombia.

*Basic Metals*

*Nickel and other products*

There was a 14.3 reduction in revenues from sales of these products, from R\$ 13.596 billion in 2011, to R\$ 11.656 billion in 2012, mainly due to (i) 8.2% price drop and 7.9% reduction in nickel sales volume as a function of the temporary shutdown of operations at Sudbury in the first quarter of 2012; and (ii) 15.2% drop in copper volume sold as a consequence of Sudbury's shutdown, which was partially offset by a 7.9% increase in the average sale price.

*Copper*

Revenues from sales of copper increased 23.6%, from R\$ 1.842 billion in 2011 to R\$ 2.277 billion in 2012, due to a 10.6% increase in volumes sold as a result of the beginning of operations at Salobo, partially offset by a 6.2% drop in average sale price.

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*Fertilizers*

*Potash*

*Revenues from potash sales increased 24.5%, from R\$ 457 million in 2011 to R\$ 569 million in 2012, due to the 22.7 increase in average sale price and the 2.3% increase in volumes sold.*

*Phosphate*

Revenues from phosphate sales increased 26.4%, from R\$ 3.898 billion in 2011, to R\$ 4,926 billion in 2012, reflecting the 12.3% increase in volume resulting from the ramp-up in phosphate rock operations in Bavóvar, in Peru, and the 13.1% price increase due to exchange rate variation.

*Nitrogen*

Sales revenues from nitrogen increased 20.2%, from R\$ 1.136 billion in 2011, to R\$ 1.366 billion in 2012, reflecting average sale prices increase of 13.9%.

*Other products and services*

Revenues from other products and services dropped 33.3% from R\$ 1.437 billion in 2011 to R\$ 959 million in 2012. This occurred mainly due to aluminum operations occurred in the first quarter.

***Costs of Products and Services***

Costs related to services and goods sold by Vale are detailed below:

*Comments on Cost by Type of Product*

The total cost of products and services totaled R\$ 49.832 billion in 2012, compared with R\$ 41.033 billion in 2011, an increase of 21.4%. The impact was mainly due to: (a) higher maintenance cost and improvements in iron ore, pellets and nickel and by the increase in volumes produced in the fertilizer and copper operations (beginning of Salobo operation), partially offset by the (c) drop in basic metals volumes sold.

- *Outsourced services.* The cost of outsourced services increased 30.4% in 2012, from R\$ 6.961 billion in 2011, to R\$ 9.079 billion in 2012, reflecting increases in maintenance expenses in the nickel operations.

- *Materials costs.* Materials costs increased by 33.2% in 2012, from R\$ 6.206 billion in 2011, to R\$ 8.264 billion in 2012, mainly due to maintenance expenses in the nickel and iron ore operations, as well as more expenses with the purchase of ammonia and urea used in the fertilizer activities, due to prices.

- *Costs of energy and fuels.* Energy and fuel costs increased 10.0% in 2012, from R\$ 4.989 billion in 2011 to R\$ 5,490 billion in 2012, due to price increase.

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- *Personnel costs.* Personnel costs increased 31.8%, from R\$ 5.066 billion in 2011, to R\$ 6.679 billion in 2012, reflecting the increase in number of employees due to the increase in activities, the 8% adjustment of salaries paid in Brazil, and bonds payment made biannually to employees working in remote areas.

- *Acquisition of products.* The cost of products purchased from third parties decreased 30.1%, from R\$ 3.887 billion in 2011, to R\$ 2.718 billion in 2012, mainly due to the reduction in nickel's purchase volume and the purchase price drop in iron ore and pellets from third parties.

- *Depreciation and depletion.* The cost of depreciation and depletion increased 23.3%, from R\$ 5.803 billion in 2011, to R\$ 7.154 billion in 2012, mainly reflecting the beginning of production of Salobo.

- *Other costs.* Other costs increase 28.7%, from R\$ 8.121 billion in 2011 to R\$ 10.448 billion in 2012, mainly due to the cost of shipping freight.

Sales and administrative expenses

Sales and administrative expenses increased 9.2%, rising from R\$ 3.894 billion in 2011 to R\$ 4.249 billion in 2012. The increase is mainly due to (a) greater expenses with personnel, reflecting the 8% increase in salaries due to the collective bargaining agreement of our Brazilian employees and (b) increase in services' expenses.

Research and development expenses

Research and development expenses grew 2.4% over 2011, rising from R\$ 2.817 billion in 2011 to R\$ 2.886 billion in 2012. The relatively stable R&D level was due to maintenance expenses to create long-term growth opportunities.

Reduction in the recoverable value of noncurrent assets

Impairment in 2012 in the amount of R\$ 8.211 billion refers mainly to the estimate loss for nickel plants for cash flow in the amount of R\$ 5.769 billion, cost increase, market price reduction and production reduction, among other factors, in coal plants in Australia in the amount of R\$ 2.139 billion. In 2011, there was no impairment.

Other operating costs and expenses

Other operating expenses increased from R\$ 4.780 billion in 2011, to R\$ 7.126 billion in 2012, a 49.2% increase, due to the provision for contingencies – CFEM (Financial Compensation for the Exploration of Mineral Resources) and the provision for ICMS losses and pre-operating expenses. Additionally, pre-operating expenses and idle capacity at VNC and Onça Puma significantly increased since 2011.



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***Gain (Loss) from measurement or noncurrent assets sale***

In 2011, the Company had revenues of R\$ 2.492 billion from asset sales, relative to expenses of R\$ 1.036 billion in 2013. The gain was due to the sale of aluminum assets in 2011, and the loss is referent to the (a) sales of fertilizer assets - Araucária company (R\$ 269 million), (b) sales of manganese ferroalloy operations in Europe (R\$ 45 million), and (c) sales of coal assets (R\$ 722 million).

***Result from Corporate Participations***

The result from corporate participations decreased 33.2%, from R\$ 1.857 billion in 2011 to R\$ 1.241 billion in 2012, mainly due to the (a) drop in sales price for pellets negotiated by Samarco, (b) lower revenues from the Itabasco and Nibrasco leasing, and (c) results from the Norsk Hydro operations.

***Net Financial result***

The net financial expenses were R\$ 8.239 billion in 2012, relative to the financial expenses of R\$ 6.318 billion in 2011. The main factor contributing to the negative result was the increase in the monetary and exchange rate variations recorded in 2012 on the Company's loans, the drop in financial revenues due to the annual average cash reduction and derivative losses, as well as expenses in the debentures market participations marks.

***Reduction of the investments recoverable value***

The reduction reported for 2012 in the amount of R\$ 4.002 billion had an impact on our investment in Norsk Hydro (R\$ 2.026 million), in Thyssenkrupp CSA (R\$ 1.804 billion), and in the Vale Soluções em Energia (R\$ 172 million). In 2011, no investment recoverable value was reported.

***Taxation on profits***

In 2012, we recorded a tax expense on net income of R\$ 2.595 billion, compared to R\$ 8.504 billion in 2011, basically due to the lower tax base used to calculate taxes due to the reversal in deferred liability as a result of Vale Fertilizantes' incorporation operations, and the amount of tax reduction from the assets recoverable value. The effective tax was lower last year, in addition to the fertilizer reversal operation, due to the payment of dividends and interest over its own capital.

*Net income attributed to controlling shareholders*

The 75.0% drop in net income, from R\$ 37.420 billion in 2011 to R\$ 9.361 billion in 2012, was mainly due to the factors explained above, with greater impact from the reduction of assets recoverable values.

Table of Contents**Analysis of equity accounts***In R\$ millions*

	2011	AV (%) (1)	2012	AV (%) (1)	Variation (%) (2011 x 2012)
<b>Assets</b>					
<b>Current Assets</b>					
Cash and cash equivalents	6,593	2,8	11,918	4,5	80,8
Short-term investments		n/a	0,506	0,2	n/a
Derivatives financial instruments	1,112	0,5	0,575	0,2	(48,3)
Accounts Receivable	15,889	6,7	13,885	5,2	(12,6)
Related parties	0,154		0,786	0,3	410,4
Inventory	9,833	4,1	10,320	3,9	5,0
Taxes on estimated profits	0,868	0,4	1,472	0,6	69,6
Taxes to be refunded	3,308	1,4	3,148	1,2	(4,8)
Advances to suppliers	0,733	0,3	0,523	0,2	(28,6)
Others	1,646	0,7	1,973	0,7	19,9
Non-current assets held for sale		n/a	0,935	0,3	n/a
	<b>40,136</b>	<b>16,9</b>	<b>46,041</b>	<b>17,3</b>	<b>14,7</b>
<b>Non-current</b>					
Related Parties	0,904	0,4	0,833	0,3	(7,9)
Loans and agreement receivables	0,399	0,2	0,502	0,2	25,8
Legal deposits	2,735	1,2	3,095	1,2	13,2
Taxes on profit to be refunded	0,629	0,3	0,899	0,3	42,9
Deferred taxes on profit	3,567	1,5	8,282	3,1	132,2
Taxes to be refunded	0,483	0,2	0,443	0,2	(8,3)
Derivatives financial instruments	0,112		0,093		(17,0)
Others	1,524	0,7	1,327	0,5	(12,9)
	<b>10,353</b>	<b>4,4</b>	<b>15,474</b>	<b>5,8</b>	<b>49,8</b>
<b>Investments</b>	14,984	6,3	13,044	4,9	(12,9)
<b>Intangibles</b>	17,789	7,5	18,822	7,1	5,8
<b>Fixed Assets</b>	153,855	64,9	173,455	65,0	12,7
	196,981	83,1	220,795	82,7	12,1
<b>Total Assets</b>	<b>237,117</b>	<b>100,0</b>	<b>266,836</b>	<b>100,0</b>	<b>12,5</b>

(1) *Relative to total asset*

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	2011	AV (%) (1)	2012	AV (%) (1)	Variation (%) (2011 x 2012)
<b>Liabilities and shareholders equity</b>					
<b>Current liabilities</b>					
Accounts Payable to suppliers and contractors	8,851	3,7	9,255	3,0	4,6
Salaries and employment taxes	2,442	1,0	3,025	1,1	23,9
Derivatives financial instruments	0,136	0,1	0,710	0,3	422,1
Loans and financing	2,847	1,2	7,093	2,7	149,1
Related Parties	0,043		0,423	0,2	883,7
Taxes to be refunded	0,979	0,4	0,664	0,2	(32,2)
Taxes on profits to be refunded	0,955	0,4	1,310	0,5	37,2
Pension and retirement benefits	0,316	0,1	0,420	0,2	32,9
Sub concessions payable	0,123	0,1	0,133		8,1
Provision for asset retirement	0,136	0,1	0,143		5,1
Dividends and interest on equity	2,207	0,9		n/a	n/a
Others	1,650	0,7	2,168	0,8	31,4
	<b>20,685</b>	<b>8,7</b>	<b>25,344</b>	<b>9,5</b>	<b>22,5</b>
Liabilities related to non-current assets held for sale and phased out operations					
			0,345	0,1	n/a
	<b>20,685</b>	<b>8,7</b>	<b>25,689</b>	<b>9,6</b>	<b>24,2</b>
<b>Non-current liabilities</b>					
Derivatives financial instruments	1,239	0,5	1,601	0,6	29,2
Loans and financing	40,225	17,0	54,763	20,5	36,1
Related Parties	0,171	0,1	0,146		(14,6)
Pension and retirement benefits	4,577	1,9	6,762	2,5	47,7
Legal Provisions	3,145	1,3	4,218	1,6	34,1
Different taxes on profits	10,210	4,6	7,001	2,6	(31,4)
Provision for asset retirement	3,427	1,4	5,472	2,1	59,7
Participation Debentures	2,496	1,1	3,379	1,3	35,4
Non-controlling shareholders redeemable share	0,943	0,4	0,995	0,4	5,5
Others	4,617	2,0	3,901	1,5	(15,5)
	<b>71,050</b>	<b>30,0</b>	<b>88,238</b>	<b>33,1</b>	<b>24,2</b>
<b>Shareholders Equity</b>					
Class A preferred shares - 7,200,000,000 authorized shares with no nominal value and 2,108,579,618 issued (2011 2,108,579,618)					
	29,475	12,4	29,475	11,0	
Common shares 3,600,000,000 authorized shares, no nominal value and 3,256,724,482 (2011 3,256,724,482) issued					
	45,525	19,2	45,525	17,1	
Mandatorily convertible securities into common shares					
	0,360	0,2		n/a	n/a
Mandatorily convertible securities into preferred shares					
	0,796	0,3		n/a	n/a
Treasury shares 140,857,692 preferred shares (2011 181,099,814) and 71,071,482 common shares (2011 86,911,207)					
	(9,917)	(4,2)	(7,838)	(2,9)	(21,0)
Operating results with non-controlling shareholders					
	(0,071)		(0,840)	(0,3)	n/a
Result from share conversion/issuance					
			50		n/a
Equity valuation adjustment					
	(1,407)	(0,6)	(4,176)	(1,6)	196,8
Profit reserves					
	(0,546)	(0,2)	9,002	3,4	n/a
Accumulated profits					
	77,962	32,9	78,466	29,5	0,6
Total controlling shareholders equity					
	142,177	60,0	149,664	56,2	5,3

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Non-controlling shareholders interest	3,205	1,3	3,245	1,2	1,2
<b>Total equity</b>	145,382	61,3	152,909	57,4	5,2
<b>Total liabilities and equity</b>	<b>237,117</b>	<b>100,0</b>	<b>266,836</b>	<b>100,0</b>	<b>12,5</b>

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(1) *Relative to total liabilities and shareholders equity*

**Position on December 31, 2011 compared with the position on December 31, 2012**

Vale has assets and debts referenced to different currencies, the main ones being the *real*, the US dollar and the Canadian dollar. On December 31, 2012, we had 51% of our assets related to Brazilian *reals*, 11% to US dollars, 17% to Canadian dollars and 21% to other currencies, while the majority of our debt was expressed in US dollars. Consequently, the effects of changes in exchange rates had an impact on the financial statements, especially the depreciation of the *real* by 9.4% against the US dollar between December 31, 2011 and December 31, 2012.

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*Current Assets*

*Cash and cash equivalents.*

The 80.8% increase, rising from R\$ 6.593 billion on December 31, 2011 to R\$ 11.918 billion on December 31, 2012, occurred as a function of: (a) new investment options made in 2012 in the foreign market in the amount of US\$ 1.0 billion, 750 million, and US\$ 1.5 billion. The resources for these investments were made using operating activities and dividend payments as well as interest on its own capital.

*Short-term investments.*

On December 31, 2011 no short-term investments had been reported, while on December 31, 2012, R\$ 506.0 million were reported.

*Derivatives finance instruments*

The decrease of 48.3% in finance instruments derivatives, dropping from R\$ 1.112 billion on December 31, 2011 to R\$ 575 million on December 31, 2012, essentially refers to the depreciation of the real against the dollar, which is the index for most of the Company's swaps that protect the debt flow in *reais*.

*Accounts receivable from customers.*

The reduction of 12.6%, dropping from R\$ 15.889 billion on December 31, 2011, to R\$ 13.885 billion on December 31, 2012, refers mainly to the decrease in sales over 2012 relative to 2011.

*Inventories*

The 5.0% increase in inventories, rising from R\$ 9.833 billion on December 31, 2011 to R\$ 10.320 billion on December 31, 2012, refers mainly to the significant increase in production due to Salobo becoming operational.

*Taxes on estimated profits*

Taxes on estimated profits increased 69.6%, from R\$ 868 million on December 21, 2011 to R\$ 1.472 billion on December 31, 2012, due to amount to be refunded as the result of losses incurred by companies abroad.

*Taxes to recover or offset*

The 10.7% increase in taxes to recover or to offset, rising from R\$ 4.175 billion on December 31, 2011 to R\$ 4.620 billion on December 31, 2012, refers to the values to be recovered from losses suffered by companies abroad.

*Non-current assets held for sale*

There was no execution in 2011. On December 31, 2012, asset sales totaled R\$ 935 million, referent to the Araucária company, an operation that produces nitrogen products for Petrobras.

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***Non-current assets***

*Deferred taxes on profits*

The increase in the deferred income tax and social contribution of 132.2%, from R\$ 3.567 billion on December 31, 2011 to R\$ 8.282 billion in December 31, 2012, was due to the reversal of deferred income tax on the added value linked to the investment in the nickel and coal areas.

*Derivatives finance instruments*

The 17.0% reduction in finance instruments derivatives, which dropped from R\$ 112 million on December 31, 2011 to R\$ 93 million on December 31, 2012, basically is due to the depreciation of the dollar against the *real*, which is the index for most of the Company's swaps, which protect the Company's debt flow.

*Investments*

Investments dropped 12.9% from R\$ 14.984 billion on December 31, 2011 to R\$ 13.044 billion on December 31, 2012, reflecting a reduction in recoverable value (R\$ 4.002 billion) that was offset mainly by the equivalent equity R\$ 1.241 billion).

*Fixed assets*

The 12.7% increase in fixed assets, rising from R\$ 153.855 billion on December 31, 2011 to R\$ 173.455 billion on December 31, 2012, occurred due to projects in the iron ore, nickel, logistics and fertilizer segments.

***Current liabilities***

*Accounts payable to suppliers and contractors*

The 4.6% increase in accounts payable to suppliers and contractors, rising from R\$ 8.851 billion on December 31, 2011, to R\$ 9.255 billion on December 31, 2012, was basically due to increases with expenses with material.



*Loans and financing*

The 149.1% increase in the portion liabilities of long-term loans, rising from R\$ 2.847 billion on December 31, 2011 to R\$ 7.093 billion on December 31, 2012, was due to the transfer of short-term 7th issue debentures maturing in 2013.

*Derivatives finance instruments*

The increase in finance instruments derivatives was 422.1%, rising from R\$ 136 million on December 31, 2011 to R\$ 710 million on December 31, 2012, basically due to the appreciation of the dollar against the *real*, which is the

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index for the majority of the Company's swaps that protect the Company's flow of debt.

*Dividends and interest on own capital*

In 2012, there was no record of proposed dividends and interest on own capital, as these were paid in full throughout the year, while in 2011, due to advances for the year 2011 made in August and October of that year, it registered a balance of R\$ 2.207 billion for payment of the dividends proposed by Vale in 2012.

*Liabilities related to non-current assets held for sale*

There was no execution in 2011, while in 2012 such liabilities corresponded to R\$ 345 million, due to the Araucária sale.

*Non-current liabilities*

*Derivatives finance instruments*

The increase in finance instruments derivatives at fair value was 29.3%, rising from R\$ 1.239 billion on December 31, 2011 to R\$ 1.601 billion on December 31, 2012, basically due to the appreciation of the dollar against the *real*, which is the index for the majority of the Company's swaps that protect the Company's flow of debt.

*Loans and financing*

The increase in loans and financing was 36.1%, rising from R\$ 40.225 billion on December 31, 2012 to R\$ 54.763 billion on December 31, 2012, reflecting the exchange rate variation on the debt and the investments made on foreign markets in the amount of US\$ 1.0 billion, 750 million, and US\$ 1.5 billion, a financing contract of R\$ 4 billion (US\$ 1.9 billion) from the National Bank for Economic and Social Development (BNDES), with a disbursement of R\$ 2 million, and such increase was partially offset by the transfer of short-term 7th issue debenture maturing in 2013.

*Legal Provisions*

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Legal provisions increased 34.1%, rising R\$ 3.145 billion on December 31, 2011 to R\$ 4.218 billion on December 31, 2012, due to the complementation of a provision in the amount of R\$ 1 billion for the Financial Compensation for the Exploration of Mineral Resources (CFEM), as a result of prognosis changes related to the deductibility costs of transport from the calculation basis.

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*Deferred taxes on profits*

In 2012, the deferred income tax and social contribution fell 31.4%, from R\$ 10.210 billion on December 31, 2011 to R\$ 7.001 billion on December 31, 2012, due to the reversal of differed income tax from Vale Fertilizantes.

*Obligations for asset retirement*

The increase of 59.7% in obligations for asset retirement, rising from R\$ 3.427 billion on December 31, 2011 to R\$ 5.472 billion on December 31, 2012, was due to the annual review of the estimates.

*Shareholder Debentures*

The 35.4% increase of shareholder debentures, from R\$ 2.496 billion on December 31, 2011 to R\$ 3.379 billion on December 31, 2012, refers to these bonds mark to market.

*Shareholders' Equity of Controlling Shareholders*

The shareholders' equity of the controlling shareholders increased by 5.3%, rising from R\$ 142.177 billion on December 31, 2011 to R\$ 149.664 billion on December 31, 2012. The increase in the profit reserves came from withholdings on net income.

**Analysis of Cash Flow 2013 vs. 2012**

The following table shows the values related to the consolidated cash flow statements for the years ended December 31, 2012 and December 31, 2013:

(in R\$ million)	2013	%	2012
Operating cash flow			
Year's net revenues (loss)	(258)	(97.3)	9,391
Adjustments to consolidate the year's net revenues with operating revenues	32,491	37.9	23,690
Operating net revenues	32,233	(2.6)	33,081
Investments net revenues	(23,150)	(23.1)	(30,093)

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Financing net revenues	(9,396)	(519.5)	2,240
Cash and cash equivalents increase (reduction)	(313)	(106.0)	5,228
Beginning of the year cash and cash equivalents increase	11,918	80.8	6,593
Effect of exchange rate variations on cash and cash equivalents	860	786.6	97
End of the year cash and cash equivalents	12,465	4.6	11,918

Table of Contents**Year ended on December 31, 2012 compared to the year ended on December 31, 2013*****Net Operating Revenues***

Net operating revenues were R\$ 32.233billion in 2013 compared to R\$ 33.081 billion in 2012, a drop of 2.6%, mainly due to REFIS operations.

***Net Operating Revenues (used in) investment***

Net revenues used in investments reached R\$ 23.150billion in 2013, relative to R\$ 30.093 billion in 2012, a drop of 23.1% due to fixed assets purchase drop.

***Net Operating Revenues (used in) financing***

Net revenues used in/from financing reached R\$ 9.396billion in 2013, relative to R\$ 2.240 billion in 2012, a 519.5% drop due to 2012 funding levels.

**Analysis of Cash Flow 2012 x 2011**

The following table shows the values related to the consolidated cash flow statements for the years ended December 31, 2011 and December 31, 2012:

<b>(in R\$ millions)</b>	<b>2012</b>	<b>%</b>	<b>2011</b>
Operating cash flow :			
Year's net revenues	9,391	(75.0)	37,420
Adjustments to consolidate the year's net revenues with operating revenues	23,690	944.1	2,269
Operating net revenues	33,081	(16.6)	39,689
Investments net revenues	(30,093)	38.9	(21,665)
Financing net revenues	2,240	n/a	(23,601)
Cash and cash equivalents increase (reduction)	5,228	n/a	(5,577)
Beginning of the year cash and cash equivalents increase	6,593	47.8	12,636
Effect of exchange rate variations on cash and cash equivalents	97	n/a	(466)
End of the year cash and cash equivalents	11,918	80.8	6,593



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**Year ended on December 31, 2011, compared to the year ended on December 31, 2012**

***Net Operating Revenues***

Net operating revenues were R\$ 33.081 billion in 2012, compared with R\$ 39.689 billion in 2011, a drop of 16.6% over 2011, mainly due to reduction in the company's operating results.

***Net Operating Revenues (used in) investment***

Net revenues used in investments reached R\$ 30.093 billion in 2012, relative to R\$ 21.665 billion in 2011, an increase of 38.9% relative to 2011, due mainly to new projects.

***Net Operating Revenues (used in) financing***

Net revenues used in/from financing reached R\$ 2.240 billion in 2012, relative to R\$ 23.601 billion in 2011, an increase of 109.4% relative to 2011, due to a higher volume of investments made in 2012.

**10.2 Operating and Financial Results**

**a) Results of Vale Operations, in particular:**

***i. Description of key components of revenue***

Net operating revenues totaled R\$ 101.490 billion in 2013, increasing 11.2% relative to the R\$ 91.269 billion in 2012 and a drop of 0.5% relative to the R\$ 102.019 billion in 2011.

Individually, the most important product in terms of revenue generation in 2013, 2012, and 2011 was iron ore.





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R\$ million	Fiscal year ended December 31,					
	2011	%	2012	%	2013	%
<b>Bulk materials</b>	<b>78,130</b>	<b>77.7</b>	<b>69,369</b>	<b>76.1</b>	<b>77,856</b>	<b>76.6</b>
<b>Ferrous minerals</b>	<b>76,335</b>	<b>75.9</b>	<b>67,260</b>	<b>73.7</b>	<b>75,668</b>	<b>74.5</b>
Iron ore	61,035	60.7	52,959	58.0	61,271	60.4
Pellet plant operation services	63	0.1	35			
Pellets	13,207	13.1	12,743	14.0	12,972	12.8
Manganese and ferroalloys	1,126	1.1	1,055	1.2	1,140	1.1
Others	904	0.9	468	0.5	285	0.3
<b>Coal</b>	<b>1,795</b>	<b>1.8</b>	<b>2,109</b>	<b>2.3</b>	<b>2,188</b>	<b>2.1</b>
Thermal Coal	1,005	1.0	504	0.5	127	0.1
Metallurgical Coal	790	0.8	1,605	1.8	2,061	2.0
<b>Basic metals</b>	<b>15,438</b>	<b>15.3</b>	<b>13,933</b>	<b>15.3</b>	<b>15,746</b>	<b>15.5</b>
Nickel	9,552	9.5	8,076	8.6	8,362	8.3
Copper	4,355	4.3	4,257	4.7	5,239	5.2
PGMs	707	0.7	744	0.8	<b>1,030</b>	<b>1.0</b>
Precious metals	678	0.7	700	0.8	963	0.9
Cobalt	146	0.2	156	0.2	151	0.1
<b>Fertilizers</b>	<b>5,551</b>	<b>5.5</b>	<b>7,008</b>	<b>7.7</b>	<b>6,038</b>	<b>6.0</b>
Potash	457	0.5	569	0.6	434	0.4
Phosphates	3,898	3.9	4,926	5.4	4,443	4.4
Nitrogen	1,136	1.1	1,366	1.5	990	1.0
Others	60		147	0.1	171	0.2
<b>Others</b>	<b>1,437</b>	<b>1.4</b>	<b>959</b>	<b>1.0</b>		
<b>Net Revenues</b>	<b>100,556</b>	<b>100.0</b>	<b>91,269</b>	<b>100.0</b>	<b>101,490</b>	<b>100.0</b>

In 2013, sales to Asia represented 57.1% of total revenues, slightly above the 56.3% in 2012 and the 56.23% reported in 2011. Sales to the Americas amounted to 19.6%, below the 21.5% in 2012 and 21.8% in 2011. Revenues from Europe represented 18.6% in this term, 17.6% in 2012 and 19.0% in 2011, while the remainder contributed with 4.5% of the 2013 revenues.

Considering sales per country, China was responsible for 40.7% of our revenues in 2013, followed by Brazil with 13.1%, Japan with 8.7%, Germany with 7.0%, and South Korea with 3.9% and the United States with 2.8%. In 2012, China was responsible for 38.2% of our revenue, followed by Brazil with 14.8%, Japan with 10.5%, Germany with 6.3%, South Korea with 4.5%, and the United States with 2.8%.

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R\$ million	Fiscal year ended on December 31,					
	2011	%	2012	%	2013	%
<b>North America</b>	<b>5,587</b>	<b>5.6</b>	<b>4,626</b>	<b>5.1</b>	<b>5,129</b>	<b>5.1</b>
USA	2,767	2.8	2,593	2.8	2,823	2.8
Canada	2,631	2.6	1,974	2.2	2,242	2.2
Others	189	0.2	59	0.1	64	0.1
<b>South America</b>	<b>16,273</b>	<b>16.2</b>	<b>15,004</b>	<b>16.4</b>	<b>14,960</b>	<b>14.7</b>
Brazil	14,437	14.4	13,500	14.8	13,295	13.1
Others	1,836	1.8	1,504	1.6	1,665	1.6
<b>Asia</b>	<b>56,573</b>	<b>56.3</b>	<b>51,352</b>	<b>56.3</b>	<b>57,929</b>	<b>57.1</b>
China	35,900	35.7	34,838	38.2	41,277	40.7
Japan	12,164	12.1	9,612	10.5	8,853	8.7
South Korea	4,587	4.6	4,103	4.5	3,897	3.9
Taiwan	2,178	2.2	1,755	1.9	2,103	2.1
Others	1,744	1.7	1,044	1.2	1,799	1.8
<b>Europe</b>	<b>19,141</b>	<b>19.0</b>	<b>16,094</b>	<b>17.6</b>	<b>18,816</b>	<b>18.6</b>
Germany	6,384	6.3	5,719	6.3	7,104	7.0
France	1,338	1.3	1,300	1.4	2,105	2.1
United Kingdom	2,259	2.2	1,858	2.0	2,156	2.1
Italy	3,192	3.2	2,544	2.8	2,263	2.2
Others	5,968	5.9	4,673	5.1	5,188	5.2
<b>Rest of the World</b>	<b>2,982</b>	<b>3.0</b>	<b>1,653</b>	<b>4.6</b>	<b>4,566</b>	<b>4.5</b>
<b>Net Revenues</b>	<b>100,556</b>	<b>100.0</b>	<b>93,511</b>	<b>100.0</b>	<b>101,490</b>	<b>100.0</b>

ii. *Factors that materially affected the operating results*

Vale's operating result is mainly affected by demand, which impacts the prices of our principal products, and it is also affected by exchange rates.

*Demand and prices*

The following table summarizes the average sale price of the main products for the periods indicated.

	Fiscal year ended on December 31,		
	2011	2012	2013
	\$/metric ton, unless otherwise indicated(11)		
Iron ore	227,86	207,29	231,30
Pellets	324,53	289,93	317,96
Manganese	277,49	264,51	340,74
Ferroalloys	2.416,46	2.577,05	2.286,62
Coal			
Thermal coal	160,00	155,19	174,93
Metallurgical Coal	394,00	333,61	280,29
Nickel	37.781,39	34.660,94	32.038,31
Copper	14.101,35	14.849,08	14.847,03
Platinum (R\$ /oz)	160,00	155,19	3,175.47
Cobalt (R\$ /lb)	394,00	333,61	23.66

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Potash	846.14	1,037.87	1,864.07
Phosphates			
MAP	1,138.14	1,264.06	1,223.37
TSP	981.30	1,029.63	1,007.12
SSP	471.46	525.07	573.51
DCP	1,138.13	1,228.44	1,162.35
Nitrogen	1,024.87	1,167.15	1,113.87

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(11) Amounts converted using the average exchange rate in each period: R\$ 1.6746 in 2011, and R\$ 1.9546 in 2012 and R\$ 2.1605 in 2013.

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The following table summarizes the average volume sold of main products for the periods indicated.

	<b>Fiscal year ended on December 31,</b>		
	<b>2011</b>	<b>2012</b>	<b>2013</b>
Iron ore	257.287	258.061	264.631
Pellets	41.861	45.382	40.992
Manganese	1.032	1.745	2.116
Ferroalloys	386	267	183
Coal			
Thermal coal	5.342	3.134	726
Metallurgical Coal	2.330	4.864	7.353
Nickel	252	232	261
Copper	302	285	353
Potash	568	581	531
Phosphates			
MAP	907	1.221	1.133
TSP	594	713	681
SSP	2.501	2.446	1.969
DCP	556	474	461
Nitrogen	1.278	1.342	890

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*Iron ore and pellets*

The demand for iron ore and pellets is a result of the global demand for carbon steel, which in turn is highly influenced by global industrial production. The pricing of iron ore and pellets is done according to several levels of quality and physical characteristics. Several factors affect the prices of different types of iron ore, such as the iron content in deposits, the size of particles, humidity and the type and concentration of contaminants (such as phosphorus, alumina and manganese) in the ore. Generally, the classification of ore into thin ore, lump ore and pellet feed determines price differences.

Demand from China has been one of the main drivers of worldwide demand and prices.

Chinese imports of iron ore reached 810 million metric tons in 2013, 8.7% above the 745.5 million metric tons in 2012, and 17.9% above the 686.8 million metric tons from 2011, and due mainly to the continual growth of Chinese steel production in 2013.

Our iron ore prices are grounded in a variety of price option that are usually based on spot indices for the specification of prices charged to clients. In 2012, there was a significant change in our iron ore quarterly pricing agreements, which uses the average price indices for the three months of the current quarter to use the pricing options based on spot. This change exposes us to a greater pricing volatility, but it allows us to obtain greater value by bringing our point of sales closer to the Asian markets.

Fine iron ore prices command premiums as a function of the content of iron. The lump ore and pellet prices contain premiums in relation to fine iron ore prices and are determined based on client negotiations. The average prices for iron ore in 2013 were 11.6 and 1.5% higher than the average prices in 2012 and 2011. The average price for pellets in 2013 increased by 9.7% relative to average prices in 2012, and they were 2.0% lower relative to average prices in 2011.

*Manganese and ferroalloys*

The prices of manganese ore and ferroalloys are mainly influenced by trends in the carbon steel market. The prices of ferroalloys are also influenced by the prices of its main inputs, such as manganese ore, energy and coke. Manganese ore sales are based on the spot market or calculated on a quarterly basis. Ferroalloys prices are determined on a quarterly basis.

*Coal*

The demand for metallurgical coal is driven by the demand for steel, especially in Asia. The demand for thermal coal is directly related to electricity consumption, which will continue to be driven by worldwide economic growth, especially in emerging economies. Since April 2010, the prices for metallurgical



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coal have been established on a quarterly basis for most volumes sold in the transoceanic market, while some players are selling it on a quarterly basis, and a minority continues to use annual pricing. The prices of thermal coal are set in spot negotiations and/or through annual contracts.

*Nickel*

Nickel is traded on the London Metal Exchange (LME), and it is mainly used to produce stainless steel. Most nickel products are priced using a discount or a premium to the LME price, depending on the technical and physical characteristics of the product. Nickel demand is heavily affected by production of stainless steel, which represents 64-66% of consumption.

Vale has short-term fixed-volume contracts with customers for the majority of our expected annual nickel sales. These contracts, together with its sales of nickel products to be used for other purposes (high nickel alloys, steel alloys, forging, plating, batteries and special applications), provide stable demand for a significant portion of its annual production. In 2013, 63% of the refined nickel sales were destined to applications outside the stainless steel industry. This, when compared to the industry average of 34% among nickel producers, results in its sales volume being more stable. As a result of its focus on such higher-value segments, the average realized nickel prices have typically exceeded LME prices.

Primary nickel (including iron-nickel, pig iron nickel and nickel cathode) and secondary nickel (scrap) are nickel's main competitors for stainless steel production. The choice between the different types of primary and secondary nickel is largely driven by its relative prices and availability. In recent years, secondary nickel accounted for about 44-47% of the overall nickel used in stainless steel production, and primary nickel accounted for 53-56%. In 2013, the Chinese nickel pig iron production and iron-nickel production was 590,000 metric tons, representing 25% of the global supply of primary nickel, compared to 20% in 2012 and 16% in 2011.

*Copper*

Copper prices are determined on the basis of: (a) copper prices in final markets, such as the LME and the NYMEX; and (b) for intermediate products, such as copper concentrate (which represents the majority of the company's sales) and copper anode, treatment and refining rates are negotiated with each client. According to a pricing system known as MAMA (month after month of arrival), sale prices of copper concentrate and anode are provisionally set at the time of shipment, and the final prices are based on the LME at a future time, typically three months after shipment of product.

*Fertilizers*

The demand for fertilizers depends on the same market fundamentals as those for global demand for minerals, metals and energy. The rapid *per capita* growth





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of emerging economies causes changes in food, marked by an increase in the consumption of proteins, which contributes to higher demand for fertilizers. Demand is also driven by biofuels that are emerging as an alternative source of energy to reduce global dependency on greenhouse gases [sic], and essential raw materials for the production of biofuels – sugar cane, corn and palm – which are intensively used in fertilizers.

Fertilizers are sold in the market mainly on a cash basis using international reference prices, although certain large importers, such as China and India, often sign annual contracts. Seasonality is an important factor for determining price throughout the year, given that agricultural production in each region depends on the climactic conditions of the harvest.

*Exchange Rates*

The impact of exchange rate variations on Vale's operational results are described in item 10.2 (b) of this Reference Form.

**b. Variations in revenues attributable to changes in prices, exchange rates, inflation, changes in volumes and the introduction of new products and services**

*Exchange rate variations*

Most of the Company's revenues are expressed in US dollars, whereas most of our costs of goods sold are expressed in other currencies, mainly the Brazilian *real* (54% on December 31, 2013), the US dollar (27% on December 31, 2013), Canadian dollars (14% on December, 31, 2013), Indonesian rupees, Australian dollars, the euro, and others<sup>(12)</sup>. As a result, changes in exchange rates affect the Company's operating margin.

Most of our long-term debt is expressed in currencies other than the Brazilian *real*, mainly in American dollars (70% on December 31, 2013). Due to the fact that Vale's functional currency is the Brazilian *real*, changes in the value of the US dollar against the Brazilian *real* result in exchange gains or losses on our net liabilities, which, in turn, affect our financial results.

On December 31, 2013 our debt expressed in *reais* was R\$ 18.807 billion. Since most of our revenue is in US dollars, Vale uses derivatives to convert our debt from Brazilian *reais* to US dollars. As a consequence of the depreciation of the Brazilian *real* against the US dollar in 2013 and inflation, the net exchange rate and monetary variation caused a negative impact on our net profits of R\$ 6.484 billion in the year. The net result of the currency and interest rate swaps, structured mainly to convert the debt expressed in Brazilian *reais* into US dollars

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(12) Composition of the CPV by currency in 2012 was: 56% in *reais*, 26% in US dollars, 14% in Canadian dollars, 3% in Australian dollars and 1% in other currencies. In 2011, CPV composition was: 59% in *reais*, 20% in US dollars, 15% in Canadian dollars, 2% in Australian dollars, and 4% in other currencies.



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to protect our cash flow from currency price volatility, produced a negative accounting effect of R\$ 1.872 billion in 2012, of which R\$ 362 million generated a positive impact on the cash flow.

*Variations in the inflation rates*

The company's revenues are not significantly affected by inflation rates.

*Variations attributable to price changes, volume changes and the introduction of new products and services*

Vale's operating revenue is directly affected by changes to its products' prices and services, as well as by changes to the volumes sold, as discussed in item 10.2(a)(ii) of this Reference Form.

**c. Impact of inflation, price variations of main inputs and products, exchange rate and interest rates on operating results and the issuer's financial result**

For comments on the inflationary impact, price variations in the main products and exchange rates, see item 10.2 (b) of this Reference Form.

Vale is exposed to the risk of interest rates for loans and financings. Debt tied to interest rates in US\$ consists mainly of loans, including export prepayment operations, loans from commercial banks and multilateral organizations. In general, these debts are indexed to the LIBOR (London Interbank Offered Rate). The natural hedge between US interest rate fluctuations and prices of metals mitigates the volatility of the Company's cash flow. In the event of an imbalance in this natural hedge, Vale assesses the possibility of contracting financial instruments to provide the desired protection. The floating rate of its debt expressed in Brazilian *reais* includes debentures, loans obtained from the BNDES, fixed assets and financing for the purchase of services in the Brazilian market. The interest on these obligations is tied primarily to the CDI (Interbank Deposit Certificate), the reference interest rate on the Brazilian interbank market and the TJLP (long-term interest rate). Approximately 30% of the debt on December 31, 2013 was in *reais*, and the remaining 70% are in other currencies. Approximately 35.0% of the debt on December 31, 2012 was in *reais*, and the additional 65.0% in other currencies. About 30% of the debt at December 31, 2011 was expressed in Brazilian *reais*, the remaining 70% was expressed in other currencies. On December 31, 2013, around 43.4% of the debt was tied to the floating interest rate on December 31, 2012, relative to 45.3% on December 31, 2012 and 24% on December 31, 2011.

Fuel costs are an important component of our production cost and represented 7.4% of our total cost of products sold in 2013, 7.6% in 2012, and 8.4% in 2011. Increases in the price of oil and gas negatively impact our fertilizers, mining, pellets and nickel businesses. Electricity costs were 2.7% of the total cost of products sold in 2013, 3.4% in 2012, and 3.7% in 2011.



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**10.3 Relevant effects on Financial Statements**

The impairment registered in 2013 resulted in a loss of about R\$ 5.390 billion. This amount refers to the Company's assets recoverable value, based on the premise that includes the discounted cash flow and the commodities price.

Vale does not provide guidance regarding its future financial performance. Vale seeks to disclose as much information as possible about its views on the different markets where it operates, its strategic guidelines and implementation in order to give the capital markets a sound basis for their expectations regarding the Company's performance in the medium and long term.

**a. Introduction or disposal of operating segment**

In September 2013, the Company made public its intention to give away the control over its subsidiary VLI S.A. ( VLI ), responsible for operations in the General Load sector. Consequently, the General Load sector is being treated as under a phasing out process and assets and liabilities were reclassified as non-current assets/liabilities held for sale.

As part of the closure process, Vale signed share transfer agreements of (a) 20% of the VLI's capital to Mitsui & Co. for the amount of R\$ 1,5 billion, (b) 15.9% to Accrued Severance Pay - FGTS (Portuguese acronym) ( FGTS ) in the amount of R\$ 1,2 billion, and (c) 26.5% to the investment fund managed by Brookfield Asset Management for the amount of R\$ 2,0 billion. For more information, see items 6.5 and 10.3 in this Reference Form.

**b. Incorporation, acquisition or divestiture of stakeholder positions**

***Main Acquisitions***

**2013**

*Share increase in the Belvedere coal project.*

On January 31, 2013, Vale Belvedere Pty Ltd. signed agreements to complete a purchase option exercised in June 2010 by means of which it purchased 24.5% additional share in the Belvedere da Aquila Resources Limited (Aquila) coal project. The purchase price of A\$ 150 million (equivalent to US\$ 156 million using the AUD/USD tax rate of 1.04) is equivalent to the market price determined by an independent assessor hired by Vale and Aquila at the time. The outcome of this transaction is that Vale Belvedere Pty Ltd. increased its Belvedere share to 100%.

Additionally, Vale Belvedere Pty Ltd. agrees to pay

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the amount of A\$ 20 million (equivalent to US\$ 21 million) to settle lawsuits and disputes associated with Belvedere and Aquila.

Overall, Vale paid US\$ 338 million for 100% of Belvedere. Belvedere is a future growth option.

It is a project for an underground coal mine located in the southern Bowen Basin, near the city of Moura, in the state of Queensland, Australia. The project was approved by Vale's Administrative Council. According to preliminary estimates, Belvedere can potentially reach a production capacity of 7.0 million metric tons per year of mainly metallurgic coal.

*Increased share in the Capim Branco I and II hydroelectric power plants*

On March 12, 2013, Vale, together with Cemig Capim Branco Energia S.A., purchased, by means of preference rights stipulated in the Consórcio Capim Branco contract, for R\$ 223 million, 12.47% shares from Suzano Papel e Celulose S.A. and Suzano Holding S.A. of equity in the Capim Branco I and II, which can produce 1,524 giga watts hour per year of energy until the end of the concession in 2036. The purchase of the additional shares of the Capim Branco I and II hydroelectric power plants adds value to the extent that produces immediate reduction in the cost of energy by our operations. It is a low risk investment with a clearly higher return to Vale's equity cost.

**2012**

*Assets leasing and potash mining rights*

On April 23, 2012, Vale renewed with Petróleo Brasileiro S.A. (Petrobras) the contract renewal for assets leasing and potash mining rights in Sergipe for 30 years, allowing it to continue to explore the potash mine in Taquari-Vassouras and the development of the Carnalita project. When it begins to produce, it has been estimated that Carnalita will have the largest potash operation in Brazil, with an estimated production capacity of 1.2 million tons of potash per year. The contract is in line with Vale's growth strategy to become one of the global leaders in the fertilizer industry.

Continuing with its corporate structure optimization process, in the second quarter of 2012, Vale acquire more than 10.46% of participation in Empreendimentos Brasileiros de Mineração S.A. (EBM), whose main asset is the participation in the Minerações Brasileiras Reunidas S.A. (MBR), which owns the Ibarito, Vargem Grande, and Paraopeba mines.

As a result of this acquisition, Vale has increased its participation in EBM's capital to 96.7% and in MBR's to 98.3%, and the amount of R\$ 450 million was known as the result of the operation with non-controlling shareholders in Net Equity.





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**2011**

*Acquisition of control of Biopalma*

In February 2011, Vale became the controller of Biopalma da Amazônia S.A. Reflorestamento Indústria e Comércio, in Pará, a producer of palm oil, which is used as a raw material in biodiesel production. The transaction value was R\$ 173.5 million. Our goal is to use this fuel in Vale's operations in Brazil. Biopalma begins palm oil production in 2012, and it expects to reach annual production of 500,000 tons by 2019, when crops reach maturity. The main use of the oil will be on Vale's biodiesel production to fuel its locomotives, machines and equipment in large Brazilian operations, using B20 (a mixture containing 20% biodiesel and 80% common diesel).

*Acquisition of stake in the Belo Monte Hydroelectric Plant*

In June 2011, Vale purchased 9.0% of the capital of Norte Energia S.A. (NESA) for R\$ 3.8 million, held by Gaia Energia e Participações S.A. (Gaia). NESA's exclusive purpose is to implant, operate and develop the Belo Monte Hydroelectric Plant located in Pará. Vale reimbursed Gaia for capital contributions made by Gaia in NESA, and it will assume the commitments for future capital contributions arising from the stakeholder position that was acquired (estimated to be R\$ 2.3 billion). The acquisition is consistent with the strategy to reduce operating costs and to minimize energy prices and the risks of supply. At December 31, 2011, R\$ 137 million had been contributed to NESA.

*Increase of participation in SDCN*

In June 2011, Vale Emirates Ltd. purchased an additional 16% of participation in Sociedade de Desenvolvimento do Corredor Nacala S.A. (SDCN) for US\$ 8 million (equivalent to R\$ 12.8 million). The purchase was in line with the strategy to develop the logistic corridor of Nacala and was an extension of the purchase of 51% participation in SDCN in September 2010. SDCN has the concession to create the logistic structure necessary for the flow of production resulting from the expansion of coal production in Moatize. Vale will invest in the expansion of the capacity of the logistic corridor of Nacala by means of the rehabilitation of the existing railroads of the SDCN in Malawi and Mozambique, the construction of rail connections from Moatize to a new, deep-water marine terminal in Nacala, and the construction of the port of Nacala.

*Agreement to explore the port facility concession in Santos*

In July 2011, Vale Logística Integrada S.A. signed an agreement to create TUF Empreendimentos e Participações S.A., a joint venture with Vale Fertilizantes in order to explore the Port Facility concession of Ultrafértil (TUF). The TUF is located in the city of Santos, in the state of São Paulo, and it moves imported loads of sulfur, ammonia and fertilizers in general. It is strategically interconnected to Vale's railroad network. VLI now holds 51% in the joint



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venture, which was acquired through the payment of R\$ 150 million to Vale Fertilizantes, and it is contributing R\$ 432 million in capital to the joint venture in order to finance the TUF's investment plan. The formation of the joint venture positions Vale to competitively meet the growth of agribusiness in Brazil. At the same time, investment in the TUF strengthens the logistics infrastructure of the fertilizer business, contributing to making its expansion in the coming years feasible.

*Acquisition of shares in circulation of Vale Fertilizantes*

In December 2011, Vale concluded the public offering to acquire the shares issued by Vale Fertilizantes in circulation in the market. As a result of this operation, Vale acquired 211,014 common shares, and 82,919,456 preferred shares issued by Vale Fertilizantes, which represent 83.8% of common shares and 94.0% of preferred shares of Vale Fertilizantes in circulation in the market, which corresponds to 0.1% of the total of common shares and 29.8% of the preferred shares of Vale Fertilizantes. Both the common and preferred shares were acquired at a price of R\$ 25.00 per share, for a total of R\$ 2.078 billion. On December 23, 2011, Vale Fertilizantes had its registration as an open company cancelled by the CVM.

On January 24, 2012, the General Extraordinary Shareholders' Meeting of Vale Fertilizantes approved the redemption of the 5,314,386 shares remaining in circulation, both common and preferred, and representing 0.94% of the total shares of Vale Fertilizantes. Thus, through its controlled companies, Vale holds 100% of the total number of common shares, and 100% of the total of preferred shares of Vale Fertilizantes. The shares were redeemed at the share price offered in the public offering held on December 12, 2011 of R\$ 25.00 (twenty-five *reais*) per share, plus interest calculated based on the SELIC rate, from the date of payment for the offering, on December 15, 2011, until the payment date for redemption of the shares, which date was January 26, 2012. Vale's and Vale Fertilizante's total disbursement was R\$ 2.2 billion.

*Main investment disposals and asset sales*

In accordance with the strategy, the Company continues to reduce our stakes in non-core assets.

The following is a summary of the main disposals and sales of assets during the three-year period under discussion.

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**2013**

*Sales of part of the gold flow produced as a by product*

On February 28, 2013, Vale Switzerland, after approval by the Administrative Council, finalized the contracts with Silver Wheaton Corp. (SLW), a Canadian company with share traded in the Toronto Stock Exchange and in the New York Stock Exchange, for the sale of 70% of payable gold flow produced as a byproduct in certain nickel mines in Sudbury, for a period of 20 years, and with Silver Wheaton (Caymans) Ltd. for the sale of 25% of the payable gold flow produced as byproduct in the Salobo copper mine, for the extent of the mine's longevity. In addition to the initial payment of US\$ 1.9 billion in cash, Vale Switzerland received 100 million in SLW warrants with a strike price of US\$ 65 and a 10-year term. Additionally, Vale will receive cash payments in the future for each ounce (oz.) of gold delivered to SLW as per the agreement, at the lowest amount between US\$ 400 per ounce (plus a 1% annual adjustments based on inflation starting in 2016 in the case of Salobo) and the market price.

This transaction frees a considerable amount contained in Vale's world class basic metals assets, to the extent that it attributes to the payable gold produced in Salobo de amount of US\$ 5.32 billion, in addition to the payments of US\$ 400 per ounce delivered, given that there will be no additional cost to extract the gold contained in the condensed copper produced at Salobo. The execution of Vale's strategic plan reinforces the Company's confidence in the high potential of its world-class basic metals and the belief that they will generate significant value to shareholders across the cycles.

*VLI shares sale*

On September 18, 2013, Vale signed an agreement for the sale of 20% of VLI's total equity to Mitsui & Co. (Mitsui) for R\$ 1.509 billion and 15.9% of VLI equity for R\$ 1.2 billion to the Government's Severance Indemnity Fund - FGTS (Portuguese acronym)'s Investment fund (FI-FGTS), whose equity is managed by Caixa Econômica Federal. This transaction was concluded on April 14, 2014. Values arising out of the sale to FI-FGTS and R\$ 800 million of the funds from the sale to Mitsui will be comprised of capital investment on VLI, which issued new shares to Mitsui and FI-FGTS. The capital invested on VLI to fund part of VLI investment plan. The remainder of the resources from this transaction, R\$ 709 million, was paid directly to Vale by Mitsui.

Additionally, on December 23, 2013, Vale signed agreement with a fund managed by Brookfield Asset Management (Brookfield) for the sale of 26.5% of VLI's equity shares, for R\$ 2 billion. The conclusion of these transactions will be subject to approval by the relevant government agencies, among which is the Administrative Council for Economic Defense - CADE and ANTT - National Agency of Terrestrial Transportation. Upon conclusion of this transaction, VALE's share on VLI will decrease to 37.6%. Vale, Mitsui, FI-FGTS, and Brookfield, jointly control VLI under a shareholders' agreement.

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*Norsk Hydro total share sale*

On November 14, 2013, Vale announce that it would sell all of its 22% Norsk Hydro ASA (Hydro) shares, held by its subsidiary Vale Austria Holding GmbH (currently named Vale International Holdings GmbH) (Vale Austria), for the price of NOK 25.00 per share, resulting in the amount of NOK 11.196 billion, equivalent to US\$ 1.822 billion (equivalent to R\$ 4.218 billion). Vale Austria held these shares since 2011, when it restructured its aluminum assets portfolio. After this transaction is concluded, Vale Austria will no longer hold Hydro shares.

*Tres Valles share sales*

On December 12, 2013, Vale concluded the Sociedade Contractual Mineraria Tres Valles (Tres Valles) sale for US\$ 25 million (equivalent to R\$ 54 million) to Inversiones Porto San Giorgio S.A. (ISG), a company controlled by the Chilean group Vecchiola S.A.

Tres Valles is a company that produces cathode copper in the Coquimbo region in Chile. The transaction included Vale total share of 90% in Tres Valles equity and also certain mining right held by Vale in the Coquimbo region. Tres Valles has underground and opencast mines and it has the production capacity of 18,500 metric tons of cathode copper.

*Energy production assets sale*

On November 19, 2013, Vale signed agreements with CEMIG Geração e Transmissão S.A. (CEMIG GT) for the sale of 49% of its shares of 9% of Norte Energia S.A. (Norte Energia) s equity, a company in charge of the construction, operation, and exploration of the Belo Monte hydroelectric power plant (Belo Monte), for approximately R\$ 200 million, and for the creation of a joint venture of energy generation assets.

For this goal, two distinct vehicles were created to host energy generation projects and assets. In the first, Aliança Norte Energia Participações S.A., Vale will hold 51% of the equity, resulting from contribution from its current share of 9% of the Norte Energia s total equity and after the sale of 49% of the equity of this vehicle to CEMIG GT. Therefore, Vale s share in the Norte Energia s total equity will drop to 4.59% and Vale will try to reduce, in similar proportion, the payment of guarantees associated with the Belo Monte project s financing structure.

The second vehicle, Aliança Geração de Energia S.A., will be formed by Vale and CEMIG GT, respectively with 55% and 45% of the total equity, by means of contribution of its share in the following energy generation assets: Porto Estrela, Igarapava, Funil, Capim Branco I and II, Aimorés and Cadonga. These power plants hold 1.158 MW of attributed installed capacity and an average of 652 MW of secured energy. Electric energy supply to Vale operations will be secured by long-term contracts with Aliança Geração de Energia S.A., in order to maintain the same amount of energy currently supplied to our operations.



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The transaction is subject to regulatory approval and other , preconditions common to transactions of this type. The final amounts of these transactions will be subject to certain adjustments, according to the terms and condition established in the investment agreements.

*Purified phosphoric acid sales*

On December 20, 2013, Vale signed a contract with Israel Chemicals Ltd. (ICL) for the sale of all of its shares, corresponding to 44.25%, of Fosbrasil 's equity, a company that produces purified phosphoric acid, located in Cajati, in the state of São Paulo, for US\$ 52 million the conclusion of this transaction is contingent on compliance to the usual preconditions and approvals, including that from the Administrative Council for Economic Defense (CADE, Portuguese acronym).

*Log-in share sale*

On December 26, 2013, Vale, according to the rules in CVM 's Instruction No. 168, from December 23, 1991, as edited, held an auction to dispose of 28,737, 367 of common shares it owned from Log-in Logística Intermodal S.A. (Log-in), a company listed in the BM&FBOVESPA (ticker symbol: LOGN3), corresponding to all of the ordinary shares issued by Log-in and held by Vale, for the price of R\$ 8.11 per share, totaling R\$ 233 million. The completion of this transaction took place on January 2, 2014.

**2012**

*Sale of CADAM Participation*

On April 26, 2012, Vale signed an agreement to sell its participation in 61.5% of Cadam S.A. (CADAM) for US\$ 30.1 million (equivalent to R\$ 58.0 million), to KaMin LLC (a closed capital American company). CADAM produces kaolin and operated an open mine in the state of Amapá, a processing plant, and a private port, both in the state of Pará. The mine and the plant are interconnected via a 5.8 km pipeline. Vale will receive US\$ 30.1 million for CADAM 's share control, to be paid within five years. The transaction was concluded on May 7, 2012. CADAM 's sale is part of the Company 's continued efforts to optimize its assets portfolio. Together with the sale of Pará Pigmentos S.A. (PPSA), in 2010, CADAM 's sale consolidates the kaolin sales business.

*Sale of Colombia coal assets*

On May 25, 2012, Vale, and Vale International Holdings GmbH and Vale International S.A., signed an agreement to sell its thermal coal operations in Colombia to CPC S.A.A, a company affiliated to Colombia Natural Resources S.A.S. (CNR), a closed capital company, for US\$ 407 million (equivalent to R\$ 843 million) in cash, subject to regulatory approval. The sale was concluded on June 25, 2012.





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The thermal coal operations in Colombia are an integrated mine-rail-port system consisting of: (a) 100% coal mine in El Hatillo and a coal deposit in Cerro Largo, both in Cesar's department; (b) 100% of the Sociedad Portuária Rio Córdoba (SPRC), a coal port operation on Colombia's Atlantic coast, and (c) 8.43% participation in the Ferrocarriles Del Norte de Colombia S.A. (FENOCO) railway, which holds concession and operation of the railway connecting the coal mines to SPRC.

*Sale of manganese ferroalloy assets in Europe*

On July 10, 2012, Vale and Vale International S.A. signed an agreement to sell its manganese ferroalloy operations in Europe to Glencore Internacional Plc. Subsidiaries, a company listed in the London and Hong Kong stock markets, for US\$ 160 million (equivalent to R\$ 325 million) in cash, subject to the fulfillment of certain precondition. The manganese ferroalloy operations in Europe consist of: (a) 100% of Vale Manganese France SAS, located in Dunkirk, in France; and, (b) 100% of the Vale Manganese Norway AS, located in Mo I Rana, Norway. The sale was concluded on October 31, 2012.

*Sale of marine transport assets*

On August 31, 2012, Vale International signed an agreement to the sale, for US\$ 600 million and posterior chartering, of 10 large ore carrier ships with Polaris Shipping Co. Ltd. (Polaris). These ships were acquired in 2009 / 2010 and converted from oil tankers to ore carriers, each with an approximate capacity of 300,000 DWT, so that Vale International would have at its disposal a marine fleet dedicated to the transport of iron ore to its clients. The sold ships will be chartered by Vale International through long term chartering contracts signed with Polaris. In addition to freeing capital, the transaction preserves Vale's ability to transport iron ore by sea having the ships at its disposal, but eliminating the risks involved in ownership and operation.

*Sale of fertilizer assets*

On December 18, 2012, Vale Fertilizantes S.A. signed with Petrobras an agreement to sell Araucária, a nitrogen production operation located in Araucária in the state of Paraná, for US\$ 234 million, subject to adjustments. The purchase price will be paid by Petrobras in quarterly payments, 100% adjusted by the Interbank Deposit Certificate (CDI), in amounts that are equivalent to the royalties owned by Vale Potássio do Nordeste S.A. relative to the potash assets leasing and mining rights at Taquari-Vassouras and the Carnalita project. Araucária has an annual production capacity of approximately 1.1 million tons of ammonia and urea. The divestment of assets like Araucária, which do not have synergy with the Company's portfolio, is consistent with efforts to improve the allocation of capital and revenue generation to complement the financing of investments considered a priority, with great potential for value generation. The Araucária sale also contributed to a

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reduction in investments to sustain existing operations in the amount of US\$ 50 million per year.

CADE approved the transaction with no restrictions on May 15, 2013.

*Sale of participation in oil and gas concession*

On December 21, 2012, Vale signed an agreement with Statoil Brasil Óleo e Gás Ltda (Statoil) to sell its 25% participation in the BM-ES-22A concession in the Espírito Santo Basin for the amount of US\$ 40 million (equivalent to approximately R\$ 90 million), in cash. Besides, the sale exempts Vale from investment liabilities in the amount of US\$ 60 million until the end of 2013. The completion of this transaction happened on March 19, 2014. Vale's strategy for sustainable growth and value generation encompasses multiple options, and the active management of its portfolio is an important action to optimize the allocation of capital and to focus management efforts.

**2011**

*Sale of aluminum assets*

In February 2011, Vale announced that it had concluded a transaction with Norsk Hydro ASA (Hydro), a company listed on the Oslo Stock Exchange and on the London Stock Exchange (ticker symbol: NHY) to transfer, through its subsidiary Vale Austria Holdings GmnH (currently named Vale International Holdings GmbH) (Vale Austria), all of its stake in Albras Alumínio Brasileiro S.A. (Albras), Alunorte Alumina do Norte do Brasil S.A. (Alunorte) and Companhia de Alumina do Pará (CAP), along with their exclusivity rights, commercial contracts and net debt of US\$ 655 million (equal to R\$ 1.088 billion) for 22% of Hydro's common shares in circulation, after the issuance on February 28, 2011, and US\$ 503 million in cash (equal to R\$ 836 million) after adjustments.

Vale Austria also created a new company, Mineração Paragominas S.A. (Paragominas), and transferred the bauxite mine of Paragominas and all of its remaining bauxite mining rights in Brazil. As part of this transaction, Vale Austria sold 60% of Paragominas to Hydro for US\$ 578 million in cash (equal to R\$ 960 million) after adjustments to working capital. The remaining parcel will be sold in two equal portions, three and five years after conclusion of the transaction, for US\$ 200 million in cash, each.

According to the terms of the agreement, through its wholly owned subsidiaries, Vale Austria transferred the following to Hydro: (a) 51% of the total capital of Albras; (b) 57% of the total capital of Alunorte; (c) 61% of the total capital of CAP; and it sold (d) 60% of the total capital of Paragominas.

Vale Austria subscribed 447,834,465 shares of Hydro, or 22% of the 2,035,611,206 shares in circulation, approximately US\$ 3.5 billion (equal to R\$



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5.866 billion) according to Hydro's closing price and the exchange rate NOK/US\$ on February 25, 2011. According to the terms of the transaction, Vale Austria cannot sell its shares for a two-year lock-up period, and it also may not increase its stake in Hydro beyond the 22%.

**c. Unusual events or operations**

2013

On November 2013, Vale decided to join the Tax Recovery Program – REFIS for the payment of amounts relative to taxation on the profit from its subsidiaries and affiliated companies abroad from 2003 to 2012. By joining the REFIS, Vale generated a substantial reduction in the amounts under dispute and is in consonance with the Company's goals to eliminate uncertainties to focus on its business, in order to keep potential benefits from legal appeals under the tax regime for its foreign subsidiaries.

Among the options offered by REFIS legislation, Vale chose to make early payment of debts relative to 2003, 2004, and 2006, and to pay principal tranches, fines and interest for the remaining years of 2005, and 2007 through 2012.

The payments' face value resulting from Vale's decision reached the amount of R\$ 22.2 billion. Considering early payments and payment of the first tranche, in 2012 R\$ 6.0 billion were paid and the remaining amount, that is, R\$ 16.3 billion, will be paid in 178 monthly tranches. For further details, see Explanatory Note No. 19 of the accounting statements relative to the fiscal year ended on December 31, 2013.

2012

*Income Tax*

In June 2012, the Company decided to incorporate Vale Fertilizantes in the Nague. Consequently, the value of the acquired assets and liabilities stated in the Nague's accounting statements, deducted from the values amortized in the acquisition date, are the operations' tax basis. As a result, after the incorporation was concluded, there is no difference between the tax basis and the accounting values of the acquired net assets, and consequently, there is no more deferred income tax liability. The balance of the deferred income tax liability initially stated (accounted for when of the purchasing accounting) totaling R\$ 2,533 million, was reverted and fully acknowledged for the fiscal year's result, in connection with the incorporation of Vale Fertilizantes in the Nague.

Table of Contents*Assets recoverable value*

Vale found evidence of a reduction in assets recoverable value in some of the investments in affiliated companies and joint ventures and in fixed assets. The following table shows the adjustments made:

Assets	Cash Generating Unit	December 31, 2013			December 31, 2012		
		Net Accounting Value	Recoverable Value	Impairment Adjustment	Net Accounting Value	Recoverable Value	Impairment Adjustment
<b>Fixed Assets</b>							
Fertilizers	PRC	6.489	1.526	4.963			
Nickel	Onça Puma				7.653	1.884	5.769
Pellets	Pelleting Assets	527	100	427			
Coal	Australian Assets				3.365	1.226	2.139
Other					386	83	303
		7.016	1.626	5.390	11.404	3.193	8.211
<b>Investment</b>							
Aluminum	Norsk Hydro ASA				6.598	4.572	2.026
Metallurgy	Thyssenkrupp				4.387	2.583	1.804
Energy	VSE				207	35	172
					11.192	7.190	4.002
		<b>7.016</b>	<b>1.626</b>	<b>5.390</b>	<b>22.596</b>	<b>10.383</b>	<b>12.213</b>

**10.4 Changes in Accounting Practices. Corrections and Remarks.****a. Significant changes in accounting practices****2013**

Starting on January 1st, 2013, Vale adopted the revised pronouncement IAS 19 – Benefits to employees. The Company applied the pronouncement retroactively according to the transition provided in the pronouncement, which (i) eliminated the hallway method, (ii) rationalized the changes between assets and liabilities in the plans, acknowledging in the results of the fiscal year the cost of services, interest rate expenses on obligations, interest rate of revenues on the plan's assets, and (iii) acknowledged in the comprehensive results new measurements of actuarial gains and losses, return of plan's assets (net revenue of interest rates on assets) and changes in the ceiling effect of onerous assets and liabilities.

For further details, see explanatory note no. 6 of the accounting statements relative to the fiscal year ended on December 31, 2013.

**(a) Pronouncements, interpretations issued by the IASB or updates to subsequently adopted the December 31, 2013**

- *Annual Improvements to IFRSs: 2010-2012 Cycle*
- *Defined Benefit Plans: Employee Contributions*

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- *Hedge Accounting and amendments to IFRS 9, IFRS 7 and IAS 39*
- *Novation of Derivatives and Continuation of Hedge Accounting*
- *IFRIC 21 Levies*
- *Recoverable Amount Disclosures for Non-Financial Assets*

All of the above pronouncements, interpretations, and updates have correlated CPCs that were issued and approved, or that are in the process of being issued and approved by the CVM, with the same adoption dates.

**(b) Pronouncements, interpretation, guidelines and revision approved by the CVM to be adopted after December 31, 2012**

There are new pronouncements, interpretations and changes to the IFRS adopted in 2013, as follows. The retrospective impact of the new rules are limited to effects on the revision of CPC 33 (R1) Benefits to employees. For further details, see explanatory note no. 6 of the accounting statements relative to the fiscal year ended on December 31, 2013.

**2012**

There were no significant changes in the consolidated accounting statements in the fiscal year that ended on December 31, 2012. Vale drafted its consolidated accounting statements in IFRS based on the pronouncements already issued by the CPC and referenced by the CVM. The pronouncements issued by the IASB, and still not referenced by the CVM, will not be adopted in advance by the Company.

Considering the option given by the pronouncement of the CPC 19(R1) Investment in Joint Controlled Enterprise (Joint Venture), issued on August 4, 2011 and anticipating the consequences of the CPC 18(R2) Investment in Associated Company, Controlled Company and in Joint Venture (correlated to IFRS 11), the Company, for the purposes of consolidated statements, chose not to show its participation in controlled companies of shared control by the proportional consolidated method, and chose to present its investment in these entities using the equity equivalence method in the fiscal year of 2012.

Additionally to what is said above, for specific contracts, the Company assumes risks related to product transportation and negotiates the freight cost directly for the client. However, for these contracts, in 2011 and 2010, the main portion of the freight related to CFR (international term for



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freight and cost) of iron ore and pellets was recorded as if Vale was an operation agent, appearing in freight net income. Vale reviewed the 2011 and 2010 statements to reflect the income of such sales accordingly with the total value charged from clients. As consequence, freight costs related to this operation appears as cost of sold product.

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For more information, see Explanatory Note 2 in the financial statements relative to fiscal year ended on December 31, 2012.

**(a) Pronouncements, interpretations, guidelines and revisions approved by the CVM for adoption after to December 31, 2012**

- *Investment Entities*
  
- *Consolidated Financial Statements, Joint Arrangements and Disclosure of Interests in Other Entities: Transition Guidance*
  
- *Annual Improvements to IFRSs*
  
- *Offsetting Financial Assets and Financial Liabilities*
  
- *Mandatory Effective Date and Transition Disclosures*
  
- *IFRIC 20 - Stripping Costs in the Production Phase of a Surface Mine*
  
- *IAS 19 - Employee Benefits*
  
- *IFRS 10 - Consolidated Financial Statements*
  
- *IAS 28 - Investments in Associates and Joint Ventures*
  
- *IAS 27 - Separate Financial Statements*

- *IFRS 11 Joint Arrangements*
- *IFRS 12 Disclosure of Interests in Other Entities*
- *IFRS 13 Fair Value Measurement*
- *IFRS 9 Financial Instruments*

All of the above pronouncements, interpretations, and updates have correlated CPCs that were issued and approved, or that are in the process of being issued and approved by the CVM, with the same adoption dates.

**(b) Pronouncements, interpretation, guidelines and revision approved by the CVM to be adopted after December 31, 2012**

- CPC 46 Fair Value Measurement
- CPC 36(R3) Consolidated Statement
- CPC 45 Publication of Participation in Other Entities

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- CPC 18(R2) Investments in Associated Companies, Controlled Companies, and Joint Ventures
- CPC 33(R1) Employee Benefits
- CPC 19(R2) Joint Businesses

**(c) Pronouncements, interpretation, and guidelines issued and / or updated by the CPC to be adopted during the fiscal year of 2012**

- CPC 17 (R1) Construction Contracts
- CPC 30 (R1)- REVENUE
- CPC 40 (R1) Financial Instruments: Disclosure
- CPC 35 (R2) Separate Statements

**2011**

There have been no significant changes in the consolidated financial statements for the year ended December 31, 2011. Vale prepared its consolidated financial statements in IFRS based on the circulars already issued by the CPC and approved by the CVM. The circulars issued by the IASB and not yet approved by the CVM will not be adopted in advance by the Company.

**a) Circulars, interpretations and guidance issued and/or updated by the CPC, adopted during fiscal year 2011.**

- CPC 15 (R1) Combination of businesses

- CPC 19 (R1) Investment in joint ventures
- CPC 10 (R1) Cost of loans
- CPC 21 (R1) Intermediate financial statements
- CPC 26 (R1) Presentation of financial statements
- CPC 35 (R1) Separate financial statements correlated according to international accounting norms
- CPC 36 (R2) Consolidated financial statements
- ICPC 01 (R1) Concession contracts
- ICPC 17 Concession contracts: evidence

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**b) Circulars and interpretations issued and/or updated by the IASB and still not approved by the CVM are consequently not adopted by the Company.**

- IAS 01 Presentation of financial statements
  
- IAS 19 Employee benefits
  
- IAS 27 Separate accounting statements
  
- IAS 28 Investments in associated companies and joint ventures
  
- IFRS 09 Financial instruments
  
- IFRS 10 Consolidated accounting statements
  
- IFRS 11 Joint agreements
  
- IFRS 12 Divulging investments in other entities
  
- IFRS 13 Measuring fair value
  
- IFRIC 20 Costs of sterile removal in the production phase of surface mining

**b. Significant effects of changes in accounting practices**

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The following table summarizes the effects of the Company's adopting revised pronouncement IAS 19 Employee benefits, correlated to CPC 33 (R1) starting January 1, 2013, in the comparison period:

In R\$ millions	Consolidated December 31, 2012		
Equity Balance	Original Balance	Effects of changes	Adjusted Balance
<b>Assets</b>			
<b>Current</b>			
Cash and cash equivalents	11,918		11,918
Others	34,123		34,123
	<b>46,041</b>		<b>46,041</b>
<b>Non-current</b>			
Deferred income tax and social contribution	8,134	148	8,282
Others	212,748	(235)	212,513
	220,882	(87)	220,795
<b>Total of assets</b>	<b>266,923</b>	<b>(87)</b>	<b>266,836</b>
<b>Liabilities</b>			
<b>Current</b>			
Retirement benefits obligations	420		420
Liabilities related to noncurrent assets held for sale	327	18	345
Others	24,924		24,924
	<b>25,671</b>	<b>18</b>	<b>25,689</b>
<b>Non-current</b>			
Retirement benefits obligations	3,390	3,372	6,762
Deferred income tax and social contributions	7,754	(753)	7,001
Others	74,475		74,475
	<b>85,619</b>	<b>2,619</b>	<b>88,238</b>
<b>Shareholders equity</b>			
Capital stock	75,000		75,000
Equity assessment adjustments	(1,422)	(2,754)	(4,176)
Pension fund			
Accrued conversion adjustments	8,960	42	9,002
Accrued profits and profits reserve	78,466		78,466
Non-controlling shareholders equity	3,257	(12)	3,245
Others	(8,628)		(8,628)
	<b>155,633</b>	<b>(2,724)</b>	<b>152,909</b>
<b>Total liabilities and shareholders equity</b>	<b>266,923</b>	<b>(87)</b>	<b>266,836</b>

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In R\$ millions	Consolidated		
Equity Balance	Original Balance	December 31, 2012	Adjusted Balance
		Effects of changes	
<b>Assets</b>			
<b>Current</b>			
Cash and cash equivalents			
Others	6,593		6,593
	33,543		33,543
<b>Non-current</b>			
Deferred income tax and social contribution			
Others	3,538	29	3,567
	193,414		193,414
<b>Total of assets</b>	<b>196,952</b>	<b>29</b>	<b>196,981</b>
	<b>237,088</b>	<b>29</b>	<b>237,117</b>
<b>Liabilities</b>			
<b>Current</b>			
Retirement benefits obligations			
Others	316		316
	20,369		20,369
	<b>20,685</b>		<b>20,685</b>
<b>Non-current</b>			
Retirement benefits obligations			
Deferred income tax and social contributions	2,846	1,731	4,577
Others	10,614	(404)	10,210
	56,263		56,263
	<b>69,723</b>	<b>1,327</b>	<b>71,050</b>
<b>Shareholders equity</b>			
Capital stock			
Equity Assessment adjustments	75,000		75,000
Accrued conversion adjustments	(75)	(1,332)	(1,407)
Accrued profits and profits reserve	(750)	204	-546
Non-controlling shareholders equity	78,132	(170)	77,962
Others	53		53
	(5,680)		(5,680)
	146,680	(1,298)	145,382
<b>Total liabilities and shareholders equity</b>	<b>237,088</b>	<b>29</b>	<b>237,117</b>



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<b>In R\$ million</b>		<b>Consolidated</b>	
<b>Results Statement</b>	<b>Original Balance</b>	<b>December 31, 2012</b>	<b>Adjusted Balance</b>
		<b>Effects of changes</b>	
Net sales revenue	91,269		91,269
Cost of products sold and services provided	(49,899)	67	(49,832)
<b>Gross income</b>	<b>41,370</b>	<b>67</b>	<b>41,437</b>
Operating income (expenses)	(23,508)		(23,508)
Net financial income	(8,404)	165	(8,239)
Net equity	1,241		1,241
Reduction of assets recoverable value	(4.002)		(4.002)
<b>Earnings before income tax and social contributions</b>	<b>6,697</b>	<b>232</b>	<b>6,929</b>
Taxes on current and deferred profit			
<b>Net income in the period</b>	<b>2,669</b>	<b>74</b>	<b>2,595</b>
Income (loss) attributed to non-controlling shareholders	<b>9,366</b>	<b>158</b>	<b>9,524</b>
Net income attribute to controlling shareholders	(501)		(501)
	9,867	158	10,025
Phased out operations (Note 12)			(133)
<b>Net income attributed to parent company shareholders</b>	<b>9,867</b>	<b>158</b>	<b>9,892</b>

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	<b>Consolidated December 31, 2011</b>		
	<b>Balance with proportional consolidation</b>	<b>Effects of joint ventures</b>	<b>Balance in proportional consolidation</b>
<b>Results</b>			
Income from sales, net	100,556		100,556
Cost of products sold and services provided	(41,002)	(31)	(41,033)
<b>Gross income</b>	<b>59,554</b>	<b>(31)</b>	<b>59,523</b>
Operating income (expenses)	(8,999)		(8,999)
Net financial income	(6,371)	53	(6,318)
Net equity	1,857		1,857
<b>Profits prior taxation on profits</b>	<b>46,041</b>	<b>22</b>	<b>46,063</b>
Taxes on current and deferred profit	(8,494)	(10)	(8,504)
Net income attributed to controlling shareholders	37,953	12	37,965
Loss attribute to non-controlling shareholders	(406)		(406)
Loss attribute to non-controlling shareholders	37,953	12	37,965
Phased out operations (Note 12)	(139)		(139)
<b>Net income attributed to parent company shareholders</b>	<b>37,814</b>	<b>12</b>	<b>37,826</b>

**c. Corrections and remarks in the auditor's opinion**

There were no corrections on the opinions drafted by our independent auditors relating to the financial statements for 2011, 2012 and 2013.

As result of a difference between practices adopted in Brazil and those defined through the International Financial Reporting Standards (IFRS), the opinion by independent auditors on the accounting statements ending on December 31, 2011, 2012, and 2013 present the emphasis paragraph as follows:

- On December 31, 2011, 2012, and 2013:

As described in Note 2, individual financial statements were prepared in accordance with accounting practices adopted in Brazil. In the case of Vale S.A., these practices differ from IFRS, applicable to separate accounting statements, only related to the evaluation of investments in subsidiaries, affiliates, and joint ventures, by the equity method, as in accordance to IFRS, the fair value method should be adopted.

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As discussed on Note 6 of the accounting statements, the Company changed how it pays employee benefits in 2013. Our opinion is not an exception in regards to this topic.

**10.5 Critical Accounting Policies**

Preparation of financial statements requires the use of certain critical accounting estimates and also the exercise of judgment by the Company's Management in the process of applying the Group's accounting policies.

These estimates are based on the best information available in each fiscal year. Changes in facts and circumstances may lead to revision of estimates, therefore the actual future results may differ from estimates.

Significant estimates and assumptions used by the Company's Management in preparing these financial statements are thus presented:

a) *Mineral reserves and useful life of the mines*

The estimates of proven and probable reserves are regularly evaluated and updated. These reserves are determined using generally accepted geological estimates. The calculation of reserves requires that the Company assume positions of future conditions that are uncertain, including future ore prices, exchange and inflation rates, mining technology, availability of permits and production costs. Changes in some of these assumptions could have a significant impact on proven reserves and probable reserves recorded.

The estimated volume of mineral reserves is based on calculation of the portion of the mines that is depleted, and the estimated useful life of the mine is a major factor in quantifying the provision of environmental rehabilitation of mines during the write-down of fixed assets. Any change in the estimates of the volume of mine reserves and the useful life of the assets linked to them may have a significant impact on charges for depreciation, depletion and amortization, which are recognized in the financial statements as cost of goods sold. Changes in the estimated useful life of the mines could cause a significant impact on estimates of the provision for environmental costs of recovery after write-down of fixed assets and impairment analysis.

b) *Disposal of Assets*

The Company recognizes an obligation according to the fair value for disposal of assets during the period in which they occur, pursuant to the Accounting Statement's Explanatory Note 3(b). The Company believes the accounting estimates related to recovery of degraded areas and closure costs of a mine are a critical accounting policy because they involve significant values for the provision and it is expected to involve several assumptions, such as interest rates, inflation, the useful life of the asset considering the current stage of



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depletion and the projected dates of depletion of each mine. These estimates are reviewed each year.

c) *Taxation on profit*

The Company recognizes the effect of the deferred tax from the tax loss and/or temporary differences in its consolidated financial statements and the financial statements of the controlling company.

Determination of the provision for income taxes or deferred income tax, assets and liabilities, and any provision for losses on tax credits requires estimates from Management. For each future tax credit, the Company assesses the likelihood of part or the entire asset not being recovered. The provision for devaluation depends on the assessment by the Company, the probability of generating taxable income in the future, on production and sales planning, commodity prices, operating costs, restructuring plans, the costs of recovering degraded areas, and planned capital costs.

d) *Provision for legal suits*

Provisions for legal suits are only recorded when the possibility of loss is considered to be probable by the legal director and their legal advisers.

Legal suit provisions are recorded when the value of losses can be reasonably estimated. By their nature, legal suits will be resolved when one or more future events occur or fail to occur. The occurrence of such events does not typically depend on the Company's activities, which makes it difficult to give precise estimates about the date on which such events are recorded. Assessing such liabilities, particularly in the uncertain legal environment in Brazil, and well as in other jurisdictions, involves exercising significant estimates and judgments from management regarding the results of future events.

e) *Employee Retirement Benefits*

The amounts reported in this section depend on a number of factors that are determined based on actuarial calculations that use several assumptions to determine costs and liabilities, among other things. One of the assumptions used in determining the amounts to be recorded in the financial statements is the discount and corrective interest rate. Any changes in these assumptions will affect the accounting records.

At the end of each year, the Company, together with external actuaries, reviews which assumptions should be used for the following year. These assumptions are used to update and discount the fair value of assets and liabilities, costs and expenses, and to determine future values of estimated cash outflows that are necessary to pay pension plan obligations.



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f) *Reduction in Recoverable Value of Assets*

Every year the Company tests the recoverability of its tangible and intangible assets separated by cash-generation unity, usually employing discounted cash flow criteria, which depends on several estimates that are influenced by market conditions prevailing at the time that such recoverability is tested.

g) *Fair Value of Derivatives and Other Financial Instruments*

The fair value of financial instruments not traded in an active market is determined by using valuation techniques. The Company uses its judgment to choose the various methods and to define assumptions, which are mainly based on market conditions existing at balance sheet date

The analysis of the impact if actual results vary from Management's estimates is presented in accounting statement's explanatory note 25 on the topic of Sensitivity Analysis.

**10.6 - Internal Controls**

**a. Degree of efficiency of such controls, and any imperfections and actions taken to correct them**

Vale's Management evaluated the effectiveness of internal controls related to financial statements through a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements.

Management established a process for evaluating internal controls using a process mapping methodology and risk assessment to identify applicable controls in order to mitigate the risks affecting the Company's ability to start, authorize, record, process and release relevant information in the financial statements.

At the end of fiscal year, based on tests performed by Management during the period, no shortcomings were identified in the implementation of relevant controls. During the fiscal year, whenever mistakes are identified in the implementation of controls, they are corrected through the application of action plans to ensure their correct execution at the end of the fiscal year.

Vale's Directors understand that the process-mapping and risk-assessment methodology used are adequate to ensure the efficiency, accuracy and reliability of its internal controls.





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**b. Deficiencies and recommendations on internal controls included in the independent auditor's report**

The independent auditors did not present any deficiencies or recommendations about the effectiveness of internal controls adopted by Vale. [

**10.7 Public Sale of Securities**

**a. How resources resulting from the sale were used**

**2013**

There was no public sale of securities in 2013.

**2012**

*Vale priced US\$ 1 billion in bonds maturing in 2022.*

In January 2012, Vale priced the bonds offer from its whole subsidiary Vale Overseas Limited (Vale Overseas) at US\$ 1.0 billion (equivalent to R\$ 2.0 billion). The bonds have a 4.375% coupon rate per year, paid biannually, at a price that is 98.804% of the bond's face value. These bonds mature in January 2022 and were issued with a 255 basis points spread over the US Treasury bonds, resulting in a 4.525% yield to the investor. The bonds are a Vale Overseas unguaranteed obligation, and are totally and unconditionally guaranteed by Vale. The guarantee is equally valid as payment for all other obligations of debt without Vale's guarantees.

Vale used this offer's net revenues for general corporate purposes.

*Vale priced US\$ 1.250 billion in bonds maturing in 2022.*

In April 2012, Vale priced the bonds offer of its whole subsidiary Vale Overseas Limited (Vale Overseas) at US\$ 1.250 billion (equivalent to R\$ 2.6 billion), guaranteed by Vale. Bonds were consolidated in a single series, with Vale Overseas bonds, issued on January 11, 2012, at US\$ 1 billion (equivalent to R\$ 2.0 billion) with a 4.375% coupon rate and 2022 maturity. Bonds issued in April will have a 4.375% coupon rate of 101.345% of the bond's face value. These bonds mature in January 2022 and were issued with a 200 basis points spread over the US Treasury

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bonds, resulting in a 4.205% yield per year to the investor. The bonds are a Vale Overseas unguaranteed obligation, and are totally and unconditionally guaranteed by Vale. The guarantee is equally valid as payment for all other obligations of debt without Vale's guarantees.

Vale used the net revenues from this offer for general corporate purposes.

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*Vale priced 750 million in bonds maturing in 2023*

In July 2012, Vale priced the bonds offer of 750 million (equivalent to R\$ 1.9 billion) of 10.5 years. Vale will use the net revenue from this offer for general corporate purposes. The notes maturing in 2023, in the amount of 750 million (equivalent to R\$ 1.9 billion), have a 3.75% coupon rate per year, paid annually, and were priced at 99.608% of the bond's face value. The bonds mature on January 10, 2023, and were issued with a 180 basis point spread over the mid-swap, or a 225.7 basis point spread over the German Bund's bonds return, resulting in a 3.798% yield per year to the investor. The bonds are an unguaranteed obligation and are *pari passu* for Vale's entire obligation of a similar nature.

Vale has used net revenues from this offer for general corporate purposes.

*Vale priced US\$ 1.5 billion in bonds maturing in 2042.*

In September 2012, Vale price an offer of US\$ 1.5 billion (equivalent to R\$ 3.1 billion) in bonds with a 5.625% annual coupon rate, paid biannually, and that were priced at 99.198% of the bond's face value. The bonds mature in September 2042, and were issued with a 300 basis point spread over the US Treasury bonds, resulting in a 5.681% annual yield for the investor. The bonds are an obligation without guarantees and are *pari passu* for Vale's entire obligation of a similar nature.

Vale has used net revenues from the offer for general corporate purposes.

**2011**

There was no public sale of securities in 2011.

**b. Whether there have been relevant deviations between the actual uses of funds disclosed in the offering memoranda of that distribution**

There have not been relevant deviations.

**c. In the event of deviations, the reasons thereto**

There have not been relevant deviations.

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**10.8 Significant items Not Included in the Financial Statements**

**a. Assets and liabilities held by Vale, directly or indirectly, that do not appear on its balance sheet (*off-balance sheet items*)**

*Nickel Project Vale New Caledonia*

Regarding the construction and installment of our nickel processing plant in New Caledonia, we guarantee for the financing agreement, which are related below. In connection with the French Girardin tax law, which is favorable to financial merchant leasing operations, sponsored by the French government, Vale guarantees BNP Paribas, in the capacity of an investor receiving a tax benefit pursuant to French law, certain payments due by Vale Nouvelle-Calédonie SAS ( VNC ). Consistent with the commitment, the assets are substantially concluded on December 31, 2012. Vales has also committed that the assets associated with financial merchant leasing determined by the Girardin Law would be operate for five years from them and under specific production criteria, which remains consistent with our current plans. Vale believes that the probability of the guarantee being claimed is remote.

In October 2012, Vales signed an agreement with Sumic, from VNC, through which Sumic agrees to dilute its VNC participation from 21% to 14.5%. Originally, Sumic has the option to sell his VNC shares to Vale is the defined cost of the initial project of nickel development, as defined by the financing given to VNC in local currency, is converted to US dollars at specific exchange rates exceeds the limit of R\$ 10.3 billion, and an agreement is not reached on how to proceed in relation to the project. In May 2010 the limit was reached. Vale discussed it and decided to extend the option. As a result of the October 2012 agreement, the option s trigger change from a cost limit to a production limit. The option exercise was postponed to the first quarter of 2015, the first possible tranche to be paid.

*Nickel Plant Indonesia*

In 2012, our subsidiary PT Vale Indonesia TBK ( PTVI ), a company listed in Indonesia, submitted its growth strategy to local government in line with the license renewal of for its operation known as Contract of Work ( CoW ). During the process, the government identified the following renegotiation points (i) the size of the CoW area; (ii) the term and form of the CoW; (iii) financial obligations (royalties and taxes); (iv) internal processing and refinement; (v) mandatory exit financing; and, (vi) priority use of products and internal services. As part of the continuing CoW negotiations, in June 2013, PTVI submitted an updated growth strategy to the highest government level. The CoW renegotiation advances in 2013 and it is still ongoing. It will not be until the end of this renegotiation process that PTVI will be able to fully determine the extent to which the CoW will be affected. The PTVI operations and growth strategy implementation are contingent on the results of the CoW renegotiation.

*Nickel Plant Canada*

On March 28, 2013, Vale Canada, Vale Newfoundland & Labrador Limited ( VNLL ) and the Province of Newfoundland and Labrador ( Province ) agreed on an amendment to the 5th amendment of the Volsey s Bay development



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agreement, which regulates all of our developments and operations in the Province. According to the agreement, the Company was given an extension to finish the construction of a processing plant in Long Harbour, and restated its commitment to build an underground mine in Volsey s Bay, subject to certain terms and condition. To maintain the operational continuity of the Volsey s Bay underground mine, pending conclusion of construction and the processing plant ramp-up, the Province agreed to exempt an additional 84,000 tons of concentrate nickel in the requirement for completion of the primary processing in the province, in addition to the previous limit of 440,000. These exports may take place between 2013 and 2015. Moreover, during this time, if Vale Canada imports more than 15,000 tons of in-matte nickel for the first processing stages in the Long Harbour processing plant, Vale Canada will obtain an even larger exemption for the primary processing requirements, in tons. Vale agreed to make certain payments to the local Government relative to the additional exemption applied each year. In April 2013, VNLL exceeded the 440,000 tons limit for exports and, consequently, on December 31, 2013, VNLL allocated R\$ 77 million in payments related to the additional export exemption. In addition, Vale will create a legal liability, secured by letters of credit and other bonds, based on the additional exemption used each year, which may be considered owed and payable in the event that certain commitments regarding the construction of the underground mine be delayed or not happen at all. In this respect, letter of credit in the amount of R\$ 223 million were issued on December 31, 2013.

In addition, during operations, letters of credit were granted, as were guarantees in the amount of R\$ 2.1 billion, which are associated with items such as environmental claims, commitment to retiree assets, electricity contracts, post-retirement benefits, service agreements for the community and import and export commitments.

*Guinea Iron ore projects*

Vale acquired, from BSGR Resources Ltd., on April 30, 2010 a 51% share of BSG Resources (Guinea) Ltd., currently known as VBG Vale BSGR Limited ( VBG ) which at the time held iron ore concession rights in Southern Simandou (Zogota) and exploration licenses in Northern Simandou (Blocks 1 and 2) in the Republic of Guinea. In April 2014, the Republic of Guinea revoked the mining rights for the Simandou and Zogota concession areas held by VGB. On December 31, 2013, the accounting value of the VBG investment, which was at a pre-operational phase, was R\$ 2.6 billion.

*Participating Debentures*

Due to the 1997 privatization, the Company issued debentures for existing shareholder, including the Brazilian Government. The terms of the debentures were established to make sure that the pre-privatization shareholders had a

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share in potential future benefits, which were to be obtained by means of the exploration of certain mineral resources.

A total 388,559,056 debentures were issued in the nominal amount of R\$ 0.01 (one cent of a real), whose value will be adjusted based on the Market Price General Index ( IGP-M ), as defined in the Debenture Deed. On December 31, 2013, December 31, 2012, and January 1, 2012, the debentures fair value was R\$ 4 million, R\$ 3 million, and R\$ 2 million, respectively.

The owners of these debentures have the right to receive premiums payable every six months, equivalent to a percentage of the net revenues from certain mineral resources, as per the Debenture Deed. In April and October 2013, the Company paid semi-annual yields in the amount of R\$ 13 million and R\$ 9 million, respectively.

*Commercial Leasing*

Pelleting operations

Vale has operating commercial leasing contracts with its jointly controlled entities Nibrasco, Itabasco, Kobrasco and Hispanobras, by means of which Vale leases its pelleting plants. The term of these operating commercial leasing contracts is of 3 to 10 years, though they may be renewed.

In July 2012, Vale signed an operating commercial leasing contract with its joint venture Hispanobras. The duration of the contract is 3 years and it is renewable.

The following table shows annual minimum future payments, required and non-cancellable, for the operating commercial lease of four pelleting plants (Hispanobras, Nibrasco, Itabasco and Kobrasco), for December 31, 2013.

<b>Operations</b>	<b>Consolidated R\$ millions</b>
2014	159
2015	156
2016	152
2017	80
2018 forward	56
<b>Total</b>	<b>603</b>



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The Company entered into non-onerous concession contracts with the Brazilian Government, through the Ministry of Transport, for exploration and development of public railway transport of cargo and leasing of assets for the provision of such services. The accounting records of concessions and sub-concessions classified as intangible assets.

The concession will be terminated if one of the following takes place: the end of the contractual period, expropriation, forfeiture, termination of period, cancellation, bankruptcy or closure of the Concessionary.

Port Terminals

The Company owns specialized port terminals, as follows:

<b>Terminal</b>	<b>Location</b>	<b>Period of the concession</b>
Tubarão, and Bulk Liquids Terminals	Vitória - ES	2020
Vila Velha Terminal	Vila Velha - ES	2023
Maritime Terminal of Ponta da Madeira - Piers I and III	São Luiz - MA	2018
Maritime Terminal of Ponta da Madeira - Pier II	São Luis - MA	2010(i)
Ore Exploration Itaguaí Port	Itaguaí - RJ	
Ore Exploration Terminal - Port of Itaguaí	Itaguaí - RJ	2021
Guaíba Island Maritime Terminal TIG	Mangaratiba - RJ	2018

(i) Concession contract expired in 2012, was extended for another 36 months, and was renewed in March 2013 for another 15 years.

The contractual bases and expiration dates of the railway transport and port terminal concession did not change during the period.

**Guarantee granted to associated companies**

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Vale granted corporate guarantees, at the limit of its equity, to a line of credit acquired by its associated company Norte Energia from National Bank for Economic and Social Development - BNDES (Portuguese acronym), Caixa Econômica Federal, and Banco BTG Pactual. On December 31, 2013 and 2012, the amounts guaranteed by Vale were R\$ 695 million and R\$ 188 million, respectively. On December 31, 2011, Vale did not grant any guarantees.

**b. Other items not shown in the financial statements**

There are no other items not shown in Vale's financial statements other than those previously reported.

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**10.9 - Comments on items not shown in the Financial Statements**

Vale's Directors do not expect relevant effects on the operations described in item 10.8 of this Reference Form and not recorded in the financial statements that would change the revenues, expenses, operating result, financial expenses or other items in Vale's financial information.

For a description of the nature and purpose of each operation, as well as the amount of the obligations assumed and rights generated on behalf of Vale as a result of operations not shown in our financial statements, please refer to item 10.8 of this Reference Form.

**10.10 - Business Plan**

**a. Investments, including: (i) quantitative and qualitative description of ongoing and planned investments; (ii) sources of investment financing; and (iii) relevant ongoing and planned divestments.**

**b. Already-disclosed acquisition of plant, equipment, patents or other assets that should materially affect Vale's production capacity**

**c. New products and services, including: (i) description of ongoing research already published; (ii) the total amounts spent by the issuer on research to develop new products or services; (iii) ongoing projects already announced; and (iv) the total amounts spent by the issuer to develop new products or services**

*NOTE: To convert the amounts of investments made, the average exchange rates in the periods were used for conversion.*

In 2013, expenses with Research and Development (R&D) were not included in the investments amount, which, in turn, include project execution and maintenance of existing operations, and are based in disbursements.

In 2013, Vale's investments (project execution and maintenance of existing operations) cost R\$ 30.750 billion. R\$ 20.845 were invested in project execution and R\$ 9.906 billion in the maintenance of existing operations. Investments in corporate social responsibility reached R\$ 2.776 billion, R\$ 2.194 billion of which were dedicated to environmental protection and R\$ 572 million to social projects.

Acquisition investments summed up to R\$ 579 million in 2013. The main acquisitions are discussed in item 10.3 of this Reference Form.



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In 2012, investments excluding acquisitions were R\$ 34.660 billion, an increase of 15% over the R\$ 30.133 billion invested in 2011, although this was below what was budgeted. Of the total amount invested in 2012, R\$ 22.639 billion was allocated to project development, R\$ 2.997 billion to R&D, and R\$ 9.025 billion to sustaining existing operations. Investments in corporate social responsibility were R\$ 2.626 billion (R\$ 2.005 billion earmarked for environmental protection, and R\$ 621 million to social projects), and in 2014 this will reach R\$ 2.286 million, R\$ 1.845 million to environmental protection and conservation and R\$ 440 million to social programs.

Investments in acquisitions were R\$ 1.267 billion in 2012. The main acquisitions are commented on in item 10.3 of this Reference Form

In 2011, investments excluding acquisitions were R\$ 30.133 billion, a significant increase of 42% over the R\$ 21.276 billion invested in 2010, although this was below what was budgeted due to challenges in execution of projects. Of the total amount invested in 2011, R\$ 19.566 billion was allocated to project development, R\$ 2.917 billion to R&D, and R\$ 7.650 billion to sustaining existing operations. Investments in corporate social responsibility were R\$ 2.492 billion (R\$ 1.725 billion earmarked for environmental protection, and R\$ 765 million to social projects).

Investments in acquisitions were R\$ 2.371 billion in 2011. The main acquisitions are commented on in item 10.3 of this Reference Form.

In 2013, Vale started operations in five projects: (i) Conceição Itabiritos, an iron ore processing plant in Minas Gerais; (ii) Planta 2, a dry processing plant previously known as *Adicional 40 Mtpa*, in Pará; (iii) CLN 150, a logistic corridor in Brazil's Northern System (including Pier IV with its first cradle in Ponta Madeira), (iv) Long Harbour, a nickel and copper hydrometallurgical refinery in Canada, and (v) Totten, nickel and copper mine in Canada.

In 2012, Vale started operations in two projects (a) Salobo I, a copper and gold operation in Pará, and (b) Lubambe, a copper operation located in Africa's copper belt, in Zambia.

**2014 Capital Budget**

In December 2013, our Board of Directors approved the investment budget for 2013, including expenditures of US\$ 19.3 billion (equal to R\$ 21.8 billion) for project execution, and US\$ 4.5 billion (equal to R\$ 10.6 billion) dedicated to the maintenance of existing operations, as well as US\$ 0.9 billion (equivalent to R\$ 2.1 billion) for research and development (R&D).

The following table shows the estimated allocation of approved investments:

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## INVESTMENTS AND R&amp;D 2014 ALLOCATION BY BUSINESS AREA

US\$ millions	Project Execution		Maintenance of existing operations		R&D		Total	
		%		%		%		%
<b>Bulk materials</b>	8,017	86.2	3,075	67.6	465	51.4	11,557	78.4
Ferrous minerals	5,416	58.2	2,897	63.7	414	45.8	8,727	59.2
Coal	2,601	28.0	179	3.9	51	5.6	2,830	19.2
Base metals	790	8.5	1,023	22.5	239	26.5	2,052	13.9
Fertilizers	52	0.6	400	8.8	80	8.8	531	3.6
Energy	177	1.9	12	0.3	49	5.4	237	1.6
Steel	264	2.8					264	1.8
Others			37	0.8	71	7.9	109	0.7
<b>Total</b>	<b>9,299</b>	<b>100.0</b>	<b>4,547</b>	<b>100.0</b>	<b>903</b>	<b>100.0</b>	<b>14,750</b>	<b>100.0</b>

The following table shows the main projects under development by Vale and/or by companies in the group:

Project	Estimated Start-up Date	Investment Made			Expected Investment		Status(1)
		2011	2012	R\$ millions 2013	2014	Total	
<b>Project CLN S11 D</b>	1S14 a 2S18	0	1.290	1.504	4.488	27.158	The ANTT authorized all the civil construction required for the EFC building. Land-leveling for the railway duplication and construction of the railway branch to connect the mine to the EFC are ongoing. Installation license granted
Increase logistic capacity of Northern System to support mine S11D, including duplicating approximately 570 km of railroad, building 101 km of a new railroad branch, purchase of cars and locomotives and onshore and offshore expansion at the Ponta da Madeira Maritime terminal							
Increase nominal logistic capacity on the Carajás Railroad to approximately 230 Mtpa.							
<b>Carajás Adicional 40 Mtpa</b>	2S13	831	1.871	1.019		6.462	Project finished.

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Project	Estimated Start-up Date	Investment Made			Expected Investment		Status(1)
		2011	2012	R\$ millions 2013	2014	Total	
Construction of dry-processing plant located in Carajás, Pará, Estimated nominal capacity of 40 Mtpa							
<b>CLN 150 Mtpa</b> Increase capacity on the railroad and in the Northern System port, including the construction of the fourth pier at the maritime terminal of Ponta da Madeira, located in Maranhão	1S13 a 2S14	2.488	1.980	926		7.650	Project finished.
<b>Carajás Serra Sul S11D</b> Development of mine and processing plant. Location in the southern mountains of Carajás, Pará. Estimated nominal capacity of 90 Mtpa.	2S16	1.233	1.445	1.767	2.558	18.967	Modules electromechanic assembly reached 47% of conclusion. Installation license granted.  48% physical advance.
<b>Serra Leste</b> Construction of new processing plant located in Carajás, Pará. Estimated nominal installed capacity of 6 Mtpa.	2S14	194	291	309	80	1.120	Electromechanic assembly of main substation and energizing of processing plant finished.  Pre stripping started and commissioning of iron ore treatment station ongoing.  . Installation license () issued.

72% physical  
advance.

<b>Conceição Itabiritos</b>	2S13	613	446	387	2.183	Project delivered
Construction of concentration plant, located in the Southeastern System, Minas Gerais.						
Estimated nominal capacity of 12 Mtpa.						



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Project	Estimated Start-up Date	Investment Made				Expected Investment Total	Status(1)
		2011	2012	R\$ millions			
				2013	2014		
<b>Vargem Grande Itabiritos</b> Construction of new iron ore processing plant, located in the Southern System, Minas Gerais.  Estimated nominal capacity of 10 Mtpa.	1S14	621	952	812	882	4.479	Assembly of metallic structures and ore mining equipment is ongoing. Construction for long distance transport conveyor belt and scaffolding railway terminal ongoing. Installation license expected to be issued in the 1st quarter or 2014.  80% physical advance.
<b>Conceição Itabiritos II</b> Plant adaptation for low content itabiritos processing, located in the Southern System, Minas Gerais.  Estimated nominal capacity of 19 Mtpa (without addition of liquid capacity).	2S14	251	518	366	562	2.788	Assembly of metallic structures of flotation cells and civil construction of ball feeding system concluded.  Civil engineering, metallic structure assembly, electromechanic assembly of equipment ongoing.  Installation license issued.  79% physical advance
<b>Cauê Itabiritos</b> Plant adaptation for low content itabiritos processing, located in the Southern System, Minas Gerais.	2S15	35	192	503	874	3.526	Electromechanic assembly of quaternary screening and grinding started. Civil construction and delivery of

<p>Estimated nominal capacity of 24 Mtpa, with addition of 4 Mtpa liquid capacity. 29% sinter feed, with 65.3% Fe and 4.4% silica, and 71% pellet feed, with 67.8% Fe e 2.8% silica.</p>							<p>metallic structure and equipment ongoing.</p> <p>Advanced license and installment license for primary crusher expected for the 1st quarter of 2015.</p> <p>47% physical advance</p>
<p><b>Teluk Rubiah</b> Construction of maritime terminal with sufficient depth to receive ships of 400,000 dwt and an inventory yard. Located in Teluk Rubiah, Malaysia.</p> <p>Inventory yard with revolving capacity of</p>	<p>1S14</p>	<p>281</p>	<p>583</p>	<p>1.059</p>	<p>651</p>	<p>3.214</p>	<p>Unloading system ready to receive first ship. Concrete pouring at smaller export pier concluded.</p> <p>94% physical advance.</p>

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Project	Estimated Start-up Date	Investment Made				Expected Investment Total	Status(1)
		2011	2012	R\$ millions 2013	2014		
up to 30 Mtpa for iron ore products.							
<b>Pelleting Plants Tubarão VIII</b>	2S12	313	542	419	361	3.097	Pelleting load test conducted.
Eighth pelleting plant at the Tubarão complex in Espírito Santo.							Final phase of commissioning.. Operating license (OL) expected for 1SH14.
Estimated nominal capacity of 7.5 Mtpa.							95% physical advance.
<b>Samarco IV</b>	1S14					3.810	Final phase of commissioning. Preheating of pelleting oven started.
Construction of the fourth pelletizing plant, expansion of the mine, ore pipeline, and infrastructure at the maritime terminal. Vale has a 50% stake in Samarco. Estimated nominal capacity of 8.3 Mtpa, increasing the capacity of Samarco to 30.5 Mtpa							Fully financed by Samarco not included in Vale's Capex.
<b>COAL MINING AND LOGISTICS</b>							
<b>Moatize II</b>	2S15	122	749	827	1.784	4.849	Land leveling complete.
New mine and duplication of CHPP of Moatize, as well as related infrastructure. Location in Tete, Mozambique. Estimated nominal capacity of 11 Mtpa (70% metallurgical coal and 30% thermal coal).							Civil construction underway, with concrete foundation in the primary crusher area, CHPP and heavy vehicles well advanced

53% physical  
advance.

<b>Nacala Corridor</b>	2S14	64	725	2.014	4.248	10.420	Delivery of railroad stretches and sleepers for the section between Moatize and the Malawi border ongoing. Land leveling, dragging, and civil construction in the railroad section between Malawi and
Port and railroad infrastructure connect the Moatize site to the maritime terminal of Nacala-à-Velha, located in Nacala,							



reopened) in Sudbury,  
Ontario, Canada.

Estimated nominal  
capacity of 8,200 tpa.

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Project	Estimated Start-up Date	Investment Made				Expected Investment Total	Status(1)
		2011	2012	R\$ millions 2013	2014		
<b>CSP(2)</b> Development of a steel sheet plant in partnership with Dongkuk e Posco, located in Ceará. Vale holds 50% of the joint venture.  Estimated nominal capacity of 3.0 Mtpa	2S15	437	575	816	462	6.026	Civil construction and electromechanic assembly underway.  46% physical advance.

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(1) Expected investment is related to Vale's stake in the project.

(2) Status on December 31, 2013

**10.11 - Other factors with relevant influence**

There are no other factors that have relevantly influenced the Company's operating performance that have not been identified or commented on other items in this section.

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**11.1 Identification of forecasts**

Vale provides no guidance in the form of quantitative predictions about its future financial performance (earnings guidance), as provide din article 20 of Instruction CVM no. 480, from December 7, 2009. However, Vale makes an effort to disclose as much information as possible about its vision of the different markets where it operates, as well as the strategic guidelines of the company and their execution, so as to provide participants in the capital market with a sound basis for the formation of expectations about its performance in the medium and long term.

For information about future investment projections for the company, see item 10.10 of this Reference form.

**a. Object of projections**

Not applicable.

**b. Term under consideration and the validity of forecasts**

Not applicable.

**c. Premises of projections, with an indication of those which can be influenced by the administration of the Company**

Not applicable.

**d. Values of indicators that are the object of projections for the last 3 fiscal years**

Not applicable.



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**11.2 Follow-up and changes to disclosed projections:**

**4** identify which are being replaced by new projections included in the form and which ones are being repeated in the form

Not applicable.

**5** regarding projection periods already elapsed, compare the data projected with the effective performance of the indicators, indicating clearly the reasons that led to deviations in the projections

Not applicable.

**6** regarding projections for periods still ongoing, to make known if projections are still valid on the date of submission of the form, and, when applicable, explain why they have been abandoned or replaced

Not applicable.

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**12.1 Description of Administrative Structure**

**a. Powers of each body and committee**

**Board of Directors:**

The Board of Directors of Vale is comprised of 11 members and their respective deputies, with unified term of two years, and subject to reelection. Under Vale By-Laws, the Chairman of the Board of Directors and Managing Director positions cannot be held by one single individual. Also under the terms of the Bylaws, the Board of Directors has the powers contemplated in law:

- I. Electing, evaluating, and removing Vale's Executive Directors, and determining their attributions
- II. Distributing the compensation set by the general assembly among its members and the Executive Board;
- III. Attributing to an Executive Director the role of Investors Relations;
- IV. Approving policies of selection, evaluation, development, and compensation of the members of the Executive Board;
- V. Setting the general direction on the businesses of Vale, its fully-owned subsidiaries and controlled companies;
- VI. Approving Vale's general Human Resource policies proposed by the Executive Board;
- VII. Approving strategic guidelines and the strategic plan of Vale proposed annually by the Executive Board;
- VIII. Approving Vale's annual and multi-annual budgets proposed by the Executive Board;

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IX. Monitoring and evaluating the financial and economic performance of Vale, being entitled to request reports from the Executive Board with specific performance indicators;

X. Approving investment and/or development opportunities proposed by the Executive Board that exceed the limits established for the Executive Board as defined by the Board of Directors;

XI. Issuing opinions on merger, split-off, or incorporation decisions of which Vale is a party, as well as share purchases, proposed by the Executive Board;

XII. In accordance with the corporate purpose of Vale, making decisions on the setting-up of companies or transformation into a different type of company, direct or indirect participation or withdrawal from other companies, consortia, foundations, and other organizations through exercise of withdrawal rights, exercise or non-exercise of rights of preference in subscription and acquisition, directly or indirectly, of corporate equity or of any other form of participation or withdrawal as prescribed by law, including, but not limited to, merger, split-off, and incorporation of companies in which it participates;

XIII. Approving the corporate risk and financial policies of Vale, proposed by the Executive Board;

XIV. Approving the issuance of simple debentures, not convertible into shares and without collateral, proposed by the Executive Board;

XV. Approving the accounts of the Executive Board, presented in the Annual Management Report, as well as Financial Statements, for later submission for appreciation by the annual general shareholders meeting;

XVI. Approving profit application in the fiscal year, distribution of dividends, and, when necessary, capital budget, proposed by the Executive Board, for

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later submission for appreciation by the annual general shareholders meeting;

XVII. Appointing and removing external auditors of Vale, by recommendation of the Fiscal Board, according to item (ii) in § 1 in Article 39;

XVIII. Appointing and removing the person responsible for internal auditing and for the Ombudsman of the company, who shall report directly to the Board of Directors;

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XIX. Approving policies and the annual internal audit plan of Vale, as well as to acknowledge the respective reports and determine the adoption of any necessary measures;

XX. supervising the management by Executive Directors and examining at any time the books and papers of Vale, requesting information on contracts executed or to be executed, and any other acts, in order to ensure the financial integrity of Vale;

XXI. Approving alterations in corporate governance rules, including without limitation the accountability and information disclosure processes;

XXII. Approving policies on employee conduct based on the ethical and moral standards described in the Code of Ethics and Conduct of Vale, to be complied with by all managers and employees at Vale, its subsidiaries and controlled companies;

XXIII. Approving policies to avoid conflicts of interest between Vale and its shareholders or managers, as well as on the adoption of measures considered necessary in the event such conflicts arise;

XXIV. Approving Vale's policies of institutional responsibility, especially those related to: the environment, work health and safety, and the social responsibility of Vale, proposed by the Executive Board;

XXV. Establishing criteria for the Executive Board for purchase of, financed sale of, or placing liens on, fixed assets and for the constitution of encumbrances, compliant with the terms in article 7 in the By-Laws;

XXVI. Approving the provision of guarantees in general for the Executive Board to obtain loans, and finance, and other contracts,

XXVII. Establishing criteria for the Executive Board for the execution of commitments, non-exercise of rights and transactions of any nature, except waiver of preemptive rights in the subscription and purchase of corporate shares, under the terms in item XII in article 14 in the By-Laws;

XXVIII. Approving any matters which are not under responsibility of the Executive Board, under the terms in the By-Laws, as well as matters which limitations are outside of the scope of the Executive Board, as provided for in article 14 in the By-Laws;

XXIX. Approving any reformulations, alterations or amendments to shareholder agreements or consortia contracts or agreements among shareholders or among consortia parties of companies in which the company participates and, moreover, signing of new agreements and/or consortia contracts that address matters of this nature;

XXX. Authorizing the negotiation, signing, or alteration of contracts of any kind or value between Vale and (i) its shareholders, either directly or through intermediary companies, (ii) companies that directly or indirectly participate, in the capital of a controlling shareholder or which are controlled by or are under joint control of entities that participate in the capital of the controlling shareholder and/or (iii) companies in which the controlling shareholder of the Company participates, and the Board of Directors may establish delegations, with standards and procedures that meet the requirements and nature of operations, without prejudice of keeping the aforementioned group duly informed of all company transactions;

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XXXI. Comment on any issue to be presented at the annual shareholders meeting;

XXXII. Authorizing the purchase of shares of their own issuance for maintenance in treasury, cancelation or subsequent sale;

XXXIII. Approving or delegating to the Executive Board recommendation of persons who should form part of the administrative, consulting, and financial bodies of those companies and organizations in which Vale participates, either directly or indirectly;

XXXIV. Approving recommendations submitted by the Fiscal Board of the Company in the exercise of its legal and statutory attributions.

**Advisory Committees:**

The Board of Directors counts on the assistance, on a permanent basis of five (5) technical and advisory

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committees, as follows: Executive Development Committee; Strategic Committee; Finance Committee; Accounting Committee, and Governance and Sustainability Committee.

The mission of these committees is to assist the Board of Directors, including the monitoring of Vale activities, in order to provide more effective and higher quality solutions.

**Executive Development Committee:**

Under terms of article 21 of the Bylaws, the Executive Development Committee shall be responsible for:

I - Issuing reports on the human resources general policies of the Company submitted by the Executive Board to the Board of Directors;

II - Analyzing and issuing reports to the Board of Directors on the appropriateness of remuneration of members of the Executive Board;

III - Submitting and keeping current the methodology of performance evaluation of the members of the Executive Board; and

IV - Issuing reports on Vale's health and safety policies proposed by the Executive Board.

**Strategic Committee:**

Under terms of article 22 of the Bylaws, the Strategic Committee is responsible for:

I - Issuing reports on Vale's strategic guidelines and the strategic plan submitted annually by the Executive Board;

II - Issuing reports on Vale's annual and multi-annual investment budgets submitted by the Executive Board to the Board of Directors;

III - Issuing reports on investment and/or divestiture opportunities submitted by the Executive Board to the Board of Directors; and



IV - Issuing reports on operations relating to merger, split-off, and incorporation operations in which the Company and its controlled subsidiaries are a party, and on share purchases submitted by the Executive Board to the Board of Directors.

**Finance Committee:**

Under terms of article 23 of the Bylaws, the Financial Committee is responsible for:

I - Issuing reports on the corporate risks, financial policies and the internal financial control systems of the Company; and

II - Issuing reports on the compatibility between the shareholders remuneration level and the parameters established in the annual budget and financial planning, as well as their consistency with the general policy on dividends and the capital structure of the company.

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**Accounting Committee:**

Under terms of article 24 of the Bylaws, the Comptroller's Committee is responsible for:

I - Recommending to the Board of Directors the appointment of the person responsible for the internal auditing of the Company;

II - Issuing reports on policies and the Company's annual auditing plan submitted by the employee responsible for internal auditing, and on its execution;

III - Tracking the results of the Company's internal auditing, and identifying, prioritizing, and submitting to the Board of Directors actions to be monitored by the Executive Board

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**Governance and Sustainability Committee:**

Under terms of article 25 of the Bylaws, the Committee on Governance and sustainability is responsible for:

I - Evaluating the efficiency of Vale's governance practices and the workings of the Board of Directors, and submitting improvements;

II - Submitting improvements to the Code of Ethics and the management system in order to avoid conflicts of interest between the company and its shareholders or managers;

III - Issuing reports on potential conflicts of interest between the company and its shareholders or administrators; and

IV - Issuing reports on policies related to Vale's institutional social responsibilities, such as environmental-related issues and the social responsibilities, as proposed by the Executive Board.

**Executive Board:**

The Executive Board of Vale is comprised by, at least, 6, and at the most, 11 members, with a term of two years, subject to reelection. Under Vale By-Laws, the Chairman of the Board of Directors and Managing Director positions cannot be held by one single individual. Also, under terms of the Bylaws, the Executive Board has the following responsibilities, in addition to those contemplated in law:

I. Approving the creation and elimination of Executive Departments subordinated to each Executive Director;

II. Preparing and submitting to the Board of Directors the company's general policies on human resources, and executing the approved policies;

III. Complying and requiring compliance with the general direction of the company businesses as established by the Board of Directors;

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- IV. Preparing and submitting, annually, to the Board of Directors, Vale's strategic guidelines and the strategic plan, and executing the approved strategic plan;
- V. Preparing and submitting Vale's annual and multi-annual budgets to the Board of Directors, and executing the approved budgets;
- VI. Planning and conducting Vale's operations and reporting Vale's economic and financial performance to the Board of Directors, and producing reports with specific performance indicators;
- VII. Identifying, evaluating and submitting investment and/or divestiture opportunities to the Board of Directors which exceed the limits of the Executive Board as defined by the Board of Directors, and executing the approved investments and/or divestitures;
- VIII. Identifying, evaluating and submitting to the Board of Directors operations relating to merger, split-off, incorporation in which Vale is a party, as well as share purchases, and conducting the approved mergers, split-offs, incorporations and purchases;
- IX. Preparing and submitting Vale's finance policies to the Board of Directors, and executing the approved policies;

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- X. Submitting to the Board of Directors the issuance of simple debentures, not convertible into shares and without collateral;
  
- XI. Defining and submitting to the Board of Directors, upon preparation, the company's balance sheet, profit distribution, dividend distribution, and, if needed, capital budget;
  
- XII. Preparing, at each fiscal year, the Annual Management Report and Financial Statements to be submitted to the Board of Directors and, later, to the general shareholders' meeting
  
- XIII. Adhering to and encouraging adhesion to Vale's Code of Ethics and Conduct, established by the Board of Directors;

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XIV. Preparing and submitting to the Board of Directors Vale's policies on corporate responsibility, such as the environment, health, safety and social responsibility, and implementing the approved policies;

XIV.

XV. Authorizing the purchase of, sale of and placing of liens on fixed and non-fixed assets including securities, contracting of services, whether the company is the provider or receiver of such services, being empowered to establish standards and delegate powers, all in accordance with the criteria and standards established by the Board of Directors;

XVI. Authorizing the signing of agreements, contracts and settlements that constitute liabilities, obligations or commitments on the Company, being empowered to establish standards and delegate powers, all in accordance with the criteria and standards established by the Board of Directors;

XVII. Proposing to the Board of Directors any reformulations, alterations, or amendments of shareholders' agreements or of agreements among the shareholders of companies in which Vale participates, as well as suggesting the signing of new agreements and consortia contracts that address subjects of this nature;

XVIII. Authorizing the opening and closing of branch offices, subsidiary branch offices, depots, agencies, warehouses, representative office or any other type of establishment in this country [Brazil] or abroad;

XIX. Authorizing the signing of commitments, waiver of rights, and transactions of any nature, except in regard to the waiver of preemptory rights in subscription and purchase, under the terms in item XII above in matters related to the Board of Directors, and may establish rules and delegate powers, all within the limits of the Executive Board as established by the Board of Directors;

XX. Informing the Board of Directors of the limits of the individual responsibility of Executive Directors, within the limits of the Executive Board as established by the Board of Directors;

XXI. Establishing, based on the limitations determined by the Board of Directors to the Executive Board, the limitations along the hierarchic line of Vale's management organization

XXII. Laying down voting guidelines to be followed at the General Assemblies or their equivalent by its representatives in the companies, foundations and other organizations in which Vale participates, directly or indirectly, respecting the investment opportunities the ,

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and guidelines approved by the Board of Directors, as well as the respective budget and all within its respective limits in regard to, among other things, indebtedness, the sale of or placing of liens on assets, the waiver of rights, and the increase or reduction of corporate equity;

XXIII. Complying and requiring compliance with the general direction of the company as determined by the Board of Directors; and

XXIV. Appointing, for approval by the Board of Directors, the people to be members at management, Consulting, and fiscal boards of the

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companies and entities where Vale holds interest, including indirect interest

**Non-Statutory Committees:**

The Executive Board shall have, for advice on a permanent basis, two (2) technical and advisory committees, denominated as follows: Disclosure Committee and Risk Management Committee.

**Disclosure Committee:**

The primary attributes of the Disclosure Committee are (a) the evaluation of the relevance of acts or events that have occurred and are related to the business of Vale; and (b) the oversight of the disclosure of information to the capital markets pursuant to the terms of the Disclosure Policy. For more information on the Disclosure Committee see item 21.1.

**Risk Management Executive Committee:**

The primary responsibilities of the Risk Management Executive Committee are issuing an opinion on Vale's principles and instruments of risk management; and periodic reporting to the Executive Board on (a) the primary risks to which Vale is exposed (by type of risk and/or business) and the impact of these risks on the asset portfolio and cash flow; (b) how the risks are being monitored and managed, and (c) the impact on the profile of risk of the asset portfolio and on cash flow resulting from the inclusion of new investments and/or projects in the business plan, and, if necessary, what strategies of risk mitigation are recommended. The Risk Management Executive Committee reports regularly to the Executive Board, and the latter is responsible for evaluating and approving strategies for risk attenuation over the long term, as recommended by the Risk Management Committee.

**Fiscal Board:**

The Fiscal Board is comprised by at least 3 and at the most 5 permanent members and the same number of deputy members. The Fiscal Board shall be responsible for exercising the functions attributed to it by the applicable prevailing legislation, in Vale's By-Laws, and as regulated by its own Internal Rules to be approved by its members.

The Fiscal Board, additionally to attributions set forth in Law 6404/76, is responsible to:



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I. be aware of internal audit reports, external auditors and Comptroller Committee, evaluating recommendations and opinions and inviting them to attend meetings of the Fiscal Board, when needed.

II. provide information on matters under its competence, upon request by shareholders or shareholders groups representing a minimum of 5% of capital stock;

III. discuss with external auditors, internal auditors, Executive Directors, Comptroller Committee and Finance Executive Directors the result of

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internal control system evaluation, aiming improvement and certifying that recommendations presented and not questioned by the Executive Directors are deployed at the estimated schedule;

IV. make recommendations and to help the Board of Directors in the selection, remuneration, and dismissal of external auditors of Vale;

V. Oversee and evaluate the work of external auditors and determine to Company management any eventual withholding of compensation of the external auditor;

VI. Deliberate on the contracting with the external auditors of the Company of new services, except audit services, and may pre-approve a list of services that may be rendered, to be periodically reviewed;

VII. Evaluate the Company's financial controls, internal controls and risk management system, in order to ensure effectiveness and appropriateness and resources spent, qualification and skills of responsible parties, and training programs;

VIII. identify critical accounting aspects and analyze appropriate application of generally accepted accounting principles ;

IX. Mediate eventual disputes between management and external auditors regarding the financial statements of Vale, and guarantee that the Board of Directors promptly receives information on questions in the letter on internal controls by the external auditors;

X. Evaluate and ensure the effectiveness of procedures to be used by the Company to receive, process and deal with complaints or claims related to accounting and auditing matters, as well as guaranteeing that the mechanisms to receive complaints guarantee the confidentiality and unknown identity of the individual making the complaint, compliant with applicable laws;

XI. make available, thirty (30) days prior to General Shareholders Meeting, an opinion on the report financial statements and other related documents and affairs included in the agenda to be discussed.

**b. Date of formation of the Fiscal Board, if it is not permanent, and of the formation of the committees.**

The Fiscal Board has been a permanently functioning body since September 25, 1997.

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The five Advisory Committees were formed by the Board of Directors on December 19, 2001, and pursuant to resolutions of the Special Shareholders Meeting held on December 27, 2002, upon which date their existence became part of the Bylaws.

The Disclosure Committee and the Risk Management Committee were formed upon deliberations by the Board of Directors on June 19, 2002 and December 12, 2005, respectively.

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**c. Mechanisms for evaluating the performance of each body or committee**

Pursuant to Chapter Vi of the Internal Regulations of the Fiscal Board and provisions of the Sarbanes-Oxley Law, the Fiscal Board evaluates its own performance annually at the end of each audit cycle. The self-evaluation process considers the following: matters covered in monthly meetings, financial statements, risk management, and internal controls, management and internal audit responsibility, relationship with external auditors, resources and special research, formation of the Fiscal Board, and training and professional development of members. Only the independent auditors of Vale shall have knowledge of the self-evaluation conducted by the members of the Fiscal Board.

As of December 31, 2013, Vale did not have in place mechanisms of formal evaluation of the performance of its Board of Directors and of its Committees. For a description of the individual evaluation of the Executive Directors, see item 12.1(e) of this Reference Form.

**d. On Executive Officers, their responsibilities and individual powers**

**Chief Executive Officer:**

Under terms of article 33 of the Bylaws, the Chief Executive Officer has the following responsibilities:

I. Presiding over meetings of the Executive Board;

II. Exercising executive direction of the Company, with powers to coordinate and supervise the activities of the other Executive Officers, exerting his best efforts to ensure faithful compliance with the decisions and guidelines laid down by the Board of Directors and the General Assembly;

III. Coordinating and supervising the activities of the business areas and units that are directly subordinated to him;

IV. Selecting and submitting to the Board of Directors the names of candidates for Executive Officer posts to be elected by the Board of Directors, as well as to propose their respective removal;

V. Coordinating and processing the decision-making of the Executive Board in order to prioritize consensual decision among its members. If consensus is not achieved, the Chief Executive Officer may (i) withdraw the subject in debate; (ii) articulate the position of the

majority, including making use of the deciding vote or (iii) in the interest of the Company and through well-based reasoning, decide individually on matters of joint deliberation; in this case he must report to the Board of Directors on the use of this

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prerogative at the first meeting of the Board of Directors that occurs after the corresponding decision. Decisions related to annual and multi-annual budgets and the Strategic Plan and the Annual Report on Administration of Vale shall be taken by a majority of votes, when considering all of the Executive Officers, so long as the favorable vote of the Chief Executive Officer is among the m;

VI. Indicating who among the Executive Officers shall replace an Executive Officer in case of a temporary impairment or absence;

VII. Keeping the Board of Directors informed about the activities of Vale;

VIII. Preparing the annual report and drawing up the balance sheet together with the other Executive Officers.

**Executive Officers:**

Under terms of article 34 of the Bylaws, the Executive Officers have the following responsibilities:

I Performing the services for which they are responsible;

II Participating in meetings of the Executive Board, contributing to the definition of the policies to be followed by the company reporting on matters of the respective areas of responsibility;

III Complying with and ensuring compliance with the policy and general direction of the company s business established by the Board of Directors, each being responsible for his specific area of activities; and

IV Contracting the services of attorneys, consultants, analysts, and other resources necessary for performance of the functions of the Fiscal Board, within budget, as well as contracting experts under terms of article 163 §8 of Law 6,404/76.

In addition to this, under terms of article 28 of the Bylaws and within the limits established for each Executive Officer, decisions on matters affecting the specific area of responsibility of each one shall be made by him alone, so long as the matter does not affect the area of responsibility of another Executive Officer, or in conjunction with the Chief Executive Officer in matters or situations pre-established by the latter.

**e. Mechanisms of evaluation of the performance of members of the Board of Directors, of the Committees, and of the Committees and directorate**

According to the terms in Chapter VI in the Internal Rule of the Fiscal Board and according to the terms in the Sarbanes-Oxley Act, the Fiscal Board self-assesses its performance annually, at the end of each auditing cycle. The self-assessment process considers issues discussed at monthly meetings and under parameters regarding, resources and special investigations, the establishment of the Fiscal Board, training and professional development of its members. Vale independent auditors are the only ones with knowledge on the self-assessment carried out by members of the Fiscal Board.

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The members of the Board of Directors are evaluated annually based on their performance according to objective and measurable goals coming from the strategic planning and annual budget approved by the Board of Directors. These goals are based on Vale's performance, by means of measurement of the following indicators: asset cash flow and general indicators of productivity, safety, and the environment. The goals are monitored by the area of budget and performance management. The final result is approved by Vale's Board of Directors.

As of December 31, 2013, Vale did not have mechanisms in place for formal evaluation of the performance of members of its Board of Directors and its Committees.

**12.2 Description of the rules, policies, and practices relating to General Assemblies**

**a. Notification Periods**

Vale customarily calls for the General Shareholders' Meetings by notification, at least 30 days before the meeting in the first convocation, and 15 days prior in the second convocation, upon calling, in accordance with the recommendations of the CVM and commitments assumed before the Hong Kong Stock Market.

In addition, pursuant to article 8, §2 of Vale's Bylaws, a holder of special class preferred shares (Golden Shares) shall be called formally by the company, by means of personal correspondence directed to his legal representative at least fifteen (15) days in advance, for the purpose of considering any matter subject to the right of veto specified in Article 7 of the Bylaws and in item 18 of this Reference Form.

**b. Powers**

Vale's General Shareholders' Meeting has powers pursuant to Law 6.404/76, and the General Shareholders' Meeting shall be responsible to:

I amend the bylaws;

II elect or dismiss, at any time, members of the Company Board of Directors and Fiscal Board, provided that the Board of Directors is entitled to elect and dismiss Company directors and determine their attributions;

III annually receive accounts from manager and deliberate on financial statements;



IV global compensation for Company's managers and members of the Fiscal Board

V - authorize the issuance of debentures, provided that the Board of Directors may authorize the issuance of debentures in specific cases provided for in Law 6.404/76 and the Company Bylaws;

VI suspend the exercise of shareholders' rights;

VII deliberate on the valuation of assets provided by shareholders to comprise the capital stock;

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VIII authorize the issuance of beneficiaries;

IX deliberate on the transformation, merger, incorporation and division of the company, its dissolution and liquidation, elect and dismiss liquidating agents and appreciate the accounts; and

X authorize managers to declare bankruptcy and composition with creditors.

**c. Addresses (physical or electronic) at which documents relating to the General Assembly shall be available to shareholders for their review**

At Vale's headquarters at Avenida Graça Aranha nº 26, 12º andar, Centro, city of Rio de Janeiro, State of Rio de Janeiro, Brazil and at the electronic addresses of Vale ([www.vale.com](http://www.vale.com)) the Comissão de Valores Mobiliários - CVM ([www.cvm.gov.br](http://www.cvm.gov.br)), BM&FBOVESPA - Bolsa de Valores, Mercadorias e Futuros ([www.bmfbovespa.com.br](http://www.bmfbovespa.com.br)); the Securities and Exchange Commission ([www.sec.gov](http://www.sec.gov)) and the Hong Kong Stock Market ([www.hkex.com.hk](http://www.hkex.com.hk)).

**d. Identification and handling of conflicts of interests**

According to Vale's Bylaws, the Board of Directors may set policies to avoid conflicts of interest between Vale and its shareholders or its managers, as well as on the adoption of provisions deemed necessary should conflicts of interest arise.

On December 19, 2013, the Board of Directors approved the Policy on Transactions with Related Parties, which sets forth the guidelines and principles to assure that the transfer, onerous or free of charge, of resources, services, or obligations engaging people and/or companies with whom Vale may contract under conditions which are not independent conditions as the ones that characterize transactions with third parties (Related Parties and Transactions with Related Parties, respectively), is conducted within Market standards, compliant with the best corporate governance practices, the appropriate transparency, prioritizing the best interests of Vale, avoiding abuses or misuse of company assets. This policy applies to Vale, its controlled companies, joint ventures and entities where Vale holds significant influence, Vale shareholders, managers, and controlling shareholders, as well as kin to Vale managers and controlling shareholders. For more information on the Policy on Transactions with Related Parties, see item 16.1 in this Reference Form.

Under terms of the Bylaws and the Policy for Transactions with Related Parties, the Governance and Sustainability Committee may issue reports related to potential conflicts of interest between Vale and its shareholders or managers. The Committee may also evaluate the selection process and conditions of transactions to be considered by the Board of Directors.



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Additionally, Vale shareholders or shareholders' representatives at General Meetings should comply with the following procedure in case of conflict of interests:

- The shareholder or shareholder representative must immediately state its particular conflict interest. Should he failed to do so, another person may state such conflict;
- As soon as the conflict of interest is stated regarding a specific issue, the respective Vale's shareholder or shareholder representative will have access only to documents and information on the matter that is disclosed to the Market, under the terms in the effective legislation, and should be away, even physically, of the discussions at the General Meeting, compliant with his legal duties. The statement of conflict of interests, absence, and temporary reservation should be recorded in the minutes.

If requested by the President, the shareholders or shareholder representatives engaged in a situation of conflict of interests may partially attend the discussion, aiming to provide more information on the Transaction with Related Party object of the discussion. In this case, they should be removed at the final portion of the discussion.

**e. Request for power-of-attorney by the directors to exercise voting rights**

There are no rules, policies or practices for requesting powers-of-attorney by the directors to exercise voting rights in General Shareholders Meetings.

**f. Necessary formalities to accept powers-of-attorney granted for shareholders, indicating whether Vale accepts powers from shareholders electronically**

A shareholder who wishes to attend the General Meetings must provide identification and proof of Vale share ownership issued by the depositary financial institution.

Any shareholder may appoint a proxy, or more than one as the case may be, to attend meetings and

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vote in his name. If represented by proxy, the shareholder shall comply with the terms of Art. 126, Law No. 6,404/76, and must have been appointed by power-of-attorney no earlier than one year and qualify as a shareholder, manager, attorney who is a Member of the Order of Attorneys of Brazil, or be a financial institution. If the power-of-attorney is in a foreign language, it should be accompanied by corporate documents in the case of a legal entity, and of a letter of mandate duly translated into Portuguese, and notarized and with a consular stamp.

For the purposes of facilitating the Assemblies, shareholders represented by proxy may, at their exclusive discretion, deliver the documents within 72 (seventy two) hours prior to the Assemblies.

Vale does not accept powers-of-attorney granted electronically by shareholders.

**g. Maintenance of Internet forums and pages intended to receive and share shareholder comments relating to meetings.**

Vale does not keep Internet forums and pages for shareholders to receive and share comments relating to meeting minutes.

**h. Transmission of meetings by live video or audio.**

Vale does not transmit meetings by live video or audio.

**i. Mechanisms allowing for inclusion of shareholders proposals.**

There are no mechanisms allowing for inclusion on the agenda of proposals formulated by shareholders, except for those mechanisms contemplated in applicable law.

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**12.3. Dates and newspapers of publication of information required by Law no. 6.404/76.**

<b>Fiscal Year</b>	<b>Publication</b>	<b>Newspaper</b>	<b>State or Territory</b>	<b>Dates</b>	
12/31/2013	Financial Statements	Valor Econômico	SP	03/18/2014	
		Diário Oficial do Estado	RJ	03/18/2014	
		Jornal do Commercio	RJ	03/18/2014	
	Call to General Shareholders Meeting to approve the Financial Statements				03/18/2014
					03/19/2014
			Valor Econômico - SP		03/20/2014
					03/19/2014
			Diário Oficial do Estado	RJ	03/20/2014
					03/20/2014
	Minutes of General Shareholders Meeting that approved the Financial Statements		Jornal do Commercio	RJ	03/19/2014
			Valor Econômico	SP	03/20/2014
			Diário Oficial do Estado	RJ	04/22/2014
			Jornal do Commercio	RJ	04/25/2014
	12/31/2012	Financial Statements	Diário Comércio, Indústria & Serviço - SP		03/15/2014
Diário Oficial do Estado			RJ	03/15/2014	
Jornal do Commercio			RJ	03/15/2014	
Call to the General Shareholders Meeting to approve the Financial Statements					3/15/2013
					3/16/2013
			Diário Comércio, Indústria & Serviço - SP		3/19/2013
					3/15/2013
			Diário Oficial do Estado	RJ	3/18/2013
					3/19/2013
Minutes of General Shareholders Meeting that approved the Financial Statements					3/15/2013
			Jornal do Commercio	RJ	3/18/2013
			Diário Comércio Indústria & Serviço	SP	3/19/2013
			Diário Oficial do Estado	RJ	4/18/2013
			Jornal do Commercio	RJ	4/19/2013
12/31/2011	Financial Statements	Diário Comércio, Indústria e Serviços - SP		4/18/2013	
		Diário Oficial do Estado - RJ		4/19/2013	
		Jornal do Commercio	RJ	4/18/2013	
	Call to the General Shareholders Meeting to approve the Financial Statements				3/15/2012
					3/15/2012
			Diário Comércio, Indústria & Serviço - SP		3/15/2012
			Diário Comércio, Indústria & Serviço - RJ		3/19/2012
			Diário Comércio, Indústria e Serviços - SP		3/17/2012
					3/18/2012
					3/20/2012
					3/21/2012
					3/19/2012
			Diário Oficial do Estado	RJ	3/20/2012
					3/21/2012
Jornal do Commercio - RJ				3/19/2012	
				3/20/2012	



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<b>Fiscal Year</b>	<b>Publication</b>	<b>Newspaper</b>	<b>State or Territory</b>	<b>Dates</b>	
12/31/2013	Financial Statements	Valor Econômico	SP	03/18/2014	
		Diário Oficial do Estado	RJ	03/18/2014	
		Jornal do Commercio	RJ	03/18/2014	
	Call to General Shareholders Meeting to approve the Financial Statements				03/18/2014
					03/19/2014
					03/20/2014
					03/19/2014
					03/19/2014
					03/20/2014
					03/20/2014
Minutes of General Shareholders Meeting that approved the Financial Statements				03/19/2014	
				03/20/2014	
				03/20/2014	
				04/22/2014	
12/31/2012	Financial Statements	Diário Oficial do Estado	RJ	04/25/2014	
		Jornal do Commercio	RJ	04/22/2014	
	Call to the General Shareholders Meeting to approve the Financial Statements				04/22/2014
					03/15/2014
					03/15/2014
					03/15/2014
					3/15/2013
					3/16/2013
					3/19/2013
				3/15/2013	
				3/18/2013	
				3/19/2013	
Minutes of General Shareholders Meeting that approved the Financial Statements				3/15/2013	
				3/18/2013	
				3/19/2013	
				3/19/2013	
				4/18/2013	
				4/19/2013	
12/31/2011	Financial Statements	Diário Oficial do Estado	RJ	4/18/2013	
		Jornal do Commercio	RJ	4/19/2013	
	Call to the General Shareholders Meeting to approve the Financial Statements				4/18/2013
					3/15/2012
					3/15/2012
					3/15/2012
					3/19/2012
					3/17/2012
					3/18/2012
Minutes of General Shareholders Meeting that approved the Financial Statements				3/20/2012	
				3/21/2012	
				4/19/2012	
				4/19/2012	
				4/19/2012	





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**12.4 Board of Director s rules, policies and practices**

**a. Frequency of meetings**

The Board of Directors ordinarily holds meetings once a month, and special meetings whenever called by the Chairman or, in his absence, by the Vice-Chairman or by any other two (2) board members.

Meetings of the Board of Directors are held at the Company headquarters, and may exceptionally be held elsewhere, and attendance may be by means of teleconference, videoconference or other communication means that ensures effective participation and voting authenticity.

**b. Shareholder provisions establishing voting restrictions on members of the Board of Directors**

Vale does not have a shareholders agreement. However, controlling shareholders of Valepar S.A. signed a Private Shareholders Agreement of Valepar S.A. (Shareholders Agreement) to be in effect for 20 years from the date of signature, extendable for equal periods of ten years.

The Shareholders Agreement sets forth that the signatories agree upon guiding their representatives at General Meetings and Meetings of the Board of Directors of Vale to vote according to the decisions at Valepar Prior Meeting.

Except for qualified quorum mentioned below, at Prior Meetings matters should be decided by simple majority of votes of the attending Signatories.

According to the Shareholders Agreement, there should be approval by at least 75% of the holders of common shares for adoption of the following:

- Changes to Vale By-Laws, except when required by law;
  
- Increase of Vale s capital stock by the subscription of shares, creation of new stock class, changes to the characteristics of existing stock or capital reduction;
  
- Issue of Vale debentures, whether or not convertible into shares, subscription bonuses, stock purchase options or any other security;

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- Determination of the issuing price of new shares of Vale capital stocks or any other securities;
- Merger, division, or acquisition operations where Vale acts as party, as well as its transformation;
- Request by Vale or respective suspension of liquidation, dissolution, bankruptcy, insolvency, or voluntary acts of financial composition;
- Appointment and removal of the Board of Directors and executive Directors of Vale;

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- Appointment and removal of the Chairman of the Board of Directors of Vale;
  
- Sale or purchase by Vale of interest in any other company, as well as the purchase of shares issued by Vale to be kept in Treasury;
  
- Interest of Vale in holdings or consortium of any kind;
  
- Execution of distribution, investment, sale, exporting, technology transfer, license of brand, patent exploitation, use concession and/or lease agreements where Vale acts as party;
  
- Approval and change of Vale business plan;
  
- Determination of the compensation of members of the Board of Directors and Executive Directors, as well as their respective attributions;
  
- Attribution of profit shares to Vale managers;
  
- Changes to Vale corporate purpose;
  
- Distribution of dividends in amounts other than provided for in Vale By-Laws or non-distribution, and payment of interest on own capital;
  
- Appointment and removal of Vale's independent auditor;
  
- Creation of encumbrance or liens, including collateral, by Vale, to guarantee third-party obligations, including from its controlled or subsidiary companies;
  
- Adoption of deliberation on any matter that, according to the law, entitles the shareholder to be removed from Vale upon refund of his shares;

- Appointment and removal by Vale Executive Directors of its representatives in controlled or associate companies or in companies where Vale holds the right to appoint the managers; and
- Change to the maximum debt limit and respective debt/shareholders' equity ratio, and others.

For further information, see item 15.5 in this Reference Form.

*c. Rules on identifying and handling conflicts of interest*

which sets forth the guidelines and principles to assure that the transfer, onerous or free of charge, of resources, services, or obligations engaging people and/or companies with whom Vale may contract under conditions which are not independent conditions as the ones that characterize transactions with third parties ( Related Parties and Transactions with Related Parties ,

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respectively), is conducted within Market standards, compliant with the best corporate governance practices, the appropriate transparency, prioritizing the best interests of Vale, avoiding abuses or misuse of company assets. This policy applies to Vale, its controlled companies, joint ventures and entities where Vale holds significant influence, Vale shareholders, managers, and controlling shareholders, as well as kin to Vale managers and controlling shareholders. For more information on the Policy on Transactions with Related Parties, see item 16.1 in this Reference Form.

Thus, the corporate policy described below to identify and resolve conflicts of interest in meetings of the Board of Directors and the Executive Board, applying Brazilian laws.

- member of Vale Board of Directors or Executive Directors in conflict of interest must promptly state its particular conflict of interest. Should he failed to do so, another person may state such conflict;
- as soon as the conflict of interest is stated regarding a specific issue, the member of Vale Board of Directors or Executive Director of Vale will not receive documents or information on the matter and should be away, even physically, compliant with his legal duties. The statement of conflict of interests, absence, and temporary reservation should be recorded in the minutes.
- in case of Transactions with Related Parties including a signatory shareholder of Valepar Shareholders Agreement and, therefore, member of Vale's controlling body, the member(s) of the Board of Directors appointed by him should not receive documents or information on the matter and should be away, even physically, requesting registration in the specific minutes, of the reason for his removal. Such member(s) should return to deliberation to state his vote, compliant with the terms in Valepar Shareholders Agreement, and applicable legal terms;
- when requested by the Chairman of the Board of Directors or the President, as the case may be, members of the Board of Directors or Executive Directors of Vale engaged in a conflict of interest may partially attend the discussion aiming to provide more information on the Transaction with Related Parties in question. In this case, they should be removed from the final portion of the discussion.

Any violation against the terms in the Policy will be deemed as a violation against the Code of Ethics and Conduct and will be subject to procedures and penalties set forth there in. Additionally, the violator will also be subject to punishments set forth in the law, additionally to be responsible for losses and damages caused to Vale or to third parties.

Furthermore, the Code of Ethics and Conduct provides that the members of the Board of Directors and the Advisory Committees, the Fiscal Board, Officers, employees and interns, and controlled companies (provided that they are

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subject to the laws of the local jurisdiction), are required to defend the interests of Vale in matters in which they are participating and avoid situations in which conflicts of interest with Vale may arise, and when that is not possible, to abstain from representing Vale in the matter in question, immediately disclosing the conflict to his immediate superior.

Violations of the Code of Ethics, rules, and disciplinary standards of Vale subject violators to disciplinary penalties, which may include warning (verbal or formal), suspension, and termination of employment. In applying disciplinary penalties, the nature and seriousness of the infraction shall be considered, noting Vale human resources rules and applicable law.

**12.5 Description of binding clause the for the resolution of conflicts the through arbitration**

There are no binding clauses in the Bylaws for the resolution of conflicts by and between shareholders and Vale through arbitration.

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**12.6 /8 Composition and professional experience of management and Board of Directors:**

Name CPF Other positions held at the company	Age Occupation	Management body Elected position	Date of election Date of entry	Term Elected by comptroller
José Carlos Martins 304.880.288-68 Executive Director of Iron Metals and Strategy of Vale (since November 2011) and member of the Information Disclosure Committee (since November 2011) and Member of the Executive Committee of Risk Management (since May 2010), where he served as Executive Director of Marketing, Sales and Strategy (May 2010-Nov/2011), Executive Director of Iron Metals (June 2005 to May 2010), and Executive Director of Participations and Business Development (April 2004 to May/2005).	64 Economist	Member of the Executive Board only Executive Director of Iron metals and Strategy	3/27/2013 3/28/2013	5/25/2015 No
Luciano Siani Pires 013.907.897-56 Permanent Member of the Financial Committee, the Risk Management Committee, and member of the Disclosure Committee of Vale (since August 2012), where he already acted as (i) Deputy Member of the Board of Directors (June 2005 to April 2007); (ii) Global Director of Strategic Planning (April 2008 to April 2009 and November 2011 to July 2012); and (iii) Global Director of Human Resources and Governance (May 2009 to October 2011)	44 Mechanic Engineer	Member of the Executive Board only Executive Director of Finance and Investors Relations	3/27/2013 3/28/2013	5/25/2015 No
Vânia Lucia Chaves Somavilla 456.117.426-53 Executive Director of Human Resources, Health and Safety, Sustainability, and Power of Vale (since November 2011), where she served as Executive Director of Human Resources and Corporate Affairs of Vale (since November 2011), where she also worked as Executive Director of Human Resources and Corporate Affairs of Vale (May 2011 to November 2011). Started her professional career in Vale on August 3, 2001 as General Manager of Trade and Power responsible for the management of the power portfolio and then Director of area on March 15, 2004, where she served as Director of the Environment and Sustainable Development Department (April 1, 2010 to May 26, 2011)	54 Civil Engineer	Member of the Executive Board only Executive Director of Human Resources, Health and Safety, Sustainability, and Power	3/27/2013 3/28/2013	5/25/2015 No
Murilo Pinto de Oliveira Ferreira 212.466.706-82 Managing Director of Vale, Member of the Strategic Committee and of Information Disclosure Committee of Vale (since May 2011). Started his professional career in Vale in 1977, where he served in different positions as Director of the Department of Aluminum (January 2004 to April 2005), Executive Director of Participations and Business Development (April 2005 to May 2006) and Executive Director of Nickel and Base Metals (June 2007 to December 2008).	60 Business Administrator	Member of the Executive Board only 10 President/Superintendent	3/27/2013 3/28/2013	5/22/2015 Yes
Gerd Peter Poppinga 604.856.637-91 Executive Director of Base Metals and Information Technology of Vale (since November 2011), where he also served as Executive Coordinator for Special Projects (Nov/1999 to Jan/2000).	54 Geologist	Member of the Executive Board only Executive Director of Base Metals and Information Technology	3/27/2013 3/28/2013	5/25/2015 No
Humberto Ramos de Freitas	60	Member of the Executive Board only	3/27/2013	5/25/2015





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222.938.256-04	Engineer	Executive Director of Logistics and Mineral Research	3/28/2013	No
Executive Director of Logistics and Mineral Research of Vale (since November 2011), where he served as (i) Director of Logistic Operations (September 2009 to June 2010); (ii) Director of Ports and Navigation (June 2008 to August 2009); (iii) Director of Ports and Navigation Operations (March 2008 to May 2008); (iv) Director of the Port Operation Department (March 2007 to February 2008); (v) General manager of the Manganese Department (September to December 1997) and (vi) General manager of Port of de Ponta de Madeira (March 1993 to September 1997).				
Galib Abrahão Chaim	63	Member of the Executive Board only	3/27/2013	5/25/2015
132.019.646-20	Mining Engineer	Executive Director of Deployment of Capital Projects	3/28/2013	No
Executive Director of Deployment of Capital Projects of Vale (since November 2011), where he served as Director of the department of Coal Projects for projects in Australia, Mozambique, Indonesia and Zambia and Country Manager of Mozambique March 2005 to November 2011).				
Roger Allan Downey	47	Member of the Executive Board only	3/27/2013	5/25/2015
623.291.626-34	Administrator	Executive Director Fertilizers and Coal	3/28/2013	No
Executive Director of Fertilizers and Coal of Vale (since May 2012), where he served as Manager of Strategic Marketing Iron Ore May 2002 to August 2005).				
Francisco Ferreira Alexandre	50	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
301.479.484-87	Civil Engineer	Executive Director of Operations and Marketing for Fertilizers and Coal	5/16/2013	Yes
N/A				
João Batista Cavaglieri	57	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
394.850.647-72	Operating Support Technician	22 - Board of Directors (permanent)	5/16/2013	No
N/A				
Hidehiro Takahashi	58	Member of the Board of Directors only	3/27/2013	Until 2015 General Shareholders Meeting
949.725.917-49	Economist	23 - Board of Directors (deputy)	3/28/2013	Yes
N/A				
José Mauro Mettrau Carneiro of Cunha	64	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
299.637.297-20	Engineer	22 - Board of Directors (permanent)	5/16/2013	Yes
N/A				
	67		4/17/2013	

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Luciano Galvão Coutinho		Member of the Board of Directors only		Until 2015 General Shareholder s Meeting
636.831.808-20	Economist	22 - Board of Directors (permanent)	5/16/2013	Yes
Member of the Strategy Committee (March 2005 to March 2006 and since May 2009)				
Luiz Carlos de Freitas	61	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholder s Meeting

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659.575.638-20	Accountant	23 - Board of Directors (deputy)	5/16/2013	Yes
Member of the Controller Committee (since May 2007)				
Mário da Silveira Teixeira Júnior	68	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
113.119.598-15	Bank employee	21 Vice-President Board of Directors	5/16/2013	Yes
Member of the Strategic Committee (since March 2006)				
Oscar Augusto de Camargo Filho	76	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
030.754.948-87	Lawyer	22 - Board of Directors (permanent)	5/16/2013	Yes
Member of the Strategic Committee (since March 2006) and Executive Development Committee (since November 2001)				
Laura Bedeschi Rego de Mattos	38	Member of the Board of Directors	26/02/2014	Until 2015 General Shareholders Meeting
253.585.728-64	Chemical Engineering	23 - Board of Directors (deputy)	26/02/2014	Yes
Member of the Executive Development Committee				
Eduardo Ferreira Jardim Pinto	51	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
226.158.813-53	Railroad worker	23 - Board of Directors (deputy)	5/16/2013	No
N/A				
Renato de Cruz Gomes	61	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
426.961.277-00	Engineer	22 - Board of Directors (permanent)	5/16/2013	Yes
Member of the Governance and Sustainability Committee (since December 2001)				
Sandro Kohler Marcondes	48	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
485.322.749-00	Bank employee	23 - Board of Directors (deputy)	5/16/2013	Yes
N/A				
Robson Rocha	55	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
298.270.436-68	Administrator	22 - Board of Directors (permanent)	5/16/2013	Yes
Marco Geovanne Tobias of Silva	48	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
263.225.791-34	Bank employee		5/16/2013	Yes

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23 - Board of Directors  
(deputy)

N/A				
Hayton Jurema da Rocha	56	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
153.667.404-44	Bank employee	23 - Board of Directors (deputy)	5/16/2013	Yes

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N/A					
Hiroyuki Kato	58	Member of the Board of Directors only	4/14/2014	Until the next Extraordinary Shareholders Meeting	
000.000.000-00 Passport no. TH6135863	Administrator	22 - Board of Directors (permanent)	4/14/2014	Yes	
N/A					
Eduardo de Oliveira Rodrigues Filho	59	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting	
442.810.487-15	Engineer	23 - Board of Directors (deputy)	5/16/2013	Yes	
Member of the Financial Committee (since December 2011)					
Luiz Maurício Leuzinger	72	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting	
009.623.687-68	Engineer	23 - Board of Directors (deputy)	5/16/2013	Yes	
Member of the Financial Committee (since May 2007) and the Executive Development Committee (since May 2012)					
Dan Antonio Marinho Conrado	49	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting	
754.649.427-34	Bank employee	23 - Board of Directors (deputy)	5/16/2013	Yes	
Member of the Board of Directors and member of Vale's Strategic Committee since October 2012					
Marcel Juvinião Barros	51	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting	
029.310.198-10	Bank employee	23 - Board of Directors (deputy)	5/16/2013	Yes	
Member of the Executive Development Committee (since February 2013)					
Valeriano Durval Guimarães Gomes	60	Fiscal Board	4/17/2014	Until 2015 General Shareholders Meeting	
313.022.547-15	Economist	46 - FISCAL BOARD(deputy) Elected by Comptroller	4/17/2014	Yes	
N/A					
Marcelo Amaral Moraes	46	Fiscal Board	4/17/2014	Until 2015 General Shareholders Meeting	
929.390.077-72	Graduate in Economy	43 - FISCAL BOARD(permanent) Elected by Comptroller	4/17/2014	Yes	
Deputy member of the Board of Directors May to August 2003					
Oswaldo Mário Pêgo de Amorim Azevedo	72	Fiscal Board	4/17/2014	Until 2015 General Shareholders Meeting	
005.065.327-04	Industry and Production Engineer	46 - FISCAL BOARD(deputy) Elected by Comptroller	4/17/2014	Yes	

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Engineering at Industrial supply  
(pellets) January 1964  
February 1976

Arnaldo José Vollet

64

Fiscal Board

4/17/2014 Until 2015 General  
Shareholders Meeting

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375.560.618-68  N/A	Graduate in Mathematics	43 - FISCAL BOARD(permanent) Comptroller	Elected by 4/17/2014	Yes
Dyogo Henrique de Oliveira	38	Fiscal Board	4/17/2014	Until 2015 General Shareholders Meeting
768.643.671-34  N/A	Economist	44 - FISCAL BOARD (permanent) by preferred shareholders	Elected 4/17/2014	No
Paulo Fontoura Valle	49	Fiscal Board	4/17/2014	Until 2015 General Shareholders Meeting
311.625.571-49  N/A	Graduate in Physical Education	47 - FISCAL BOARD (deputy) preferred shareholders	Elected by 4/17/2014	No

José Carlos Martins

304.880.288-68

Main professional experience in last five years in companies where Vale holds interest directly or indirectly: (i) Vice-Chairman of the Board of Directors of Baosteel CSV Companhia Siderúrgica de Vitória, currently Companhia Siderúrgica Ubu (2008 to 2009), privately-held company engaged in steel industry activities, where Vale holds the entirety of the capital stock; (ii) Member of the Board of Directors of Samarco Mineração S.A. (since 2005), privately-held company engaged in mining and pelleting activities, where a Vale holds 50% of the capital; (iii) Vice- President of the Decision Council of Thyssenkrupp Companhia Siderúrgica do Atlântico (since 2008), privately-held company that engages in steel industry activities, where Vale holds 26.87% of the capital; and (iv) Chairman of the Board of Directors of Vale International SA (since 2006), subsidiary of Vale that develops trading and holding activities. Additionally, he served at the following open capital companies as: (i) Permanent Member of Board of Directors of Usinas Siderúrgicas de Minas Gerais S.A. USIMINAS (2005 to 2006 / 2008 to 2009), open capital company engaged in steel industry activities; (ii) Director of Steel Area of Companhia Siderúrgica Nacional, company engaged in steel industry activities; (iii) Director-President of Latas de Alumínio S.A. - LATASA, currently Rexam Beverage Can South America S.A., the later turned privately-held, engaged in the manufacturing of metallic packaging; and (iv) President and Director of Aços Villares S.A., manufacturing and sale of special steels. Graduated in Economics at Pontifícia Universidade Católica de São Paulo (PUC/SP), on January 27, 1975. Mr. José Carlos Martins /represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Luciano Siani Pires

013.907.897-56

He serves as Vale's Executive Director of Finance and Investors Relations and Permanent Member of the Financial Committee, the Risk Management Committee, and Information Disclosure Committee (since 8/1/2012), where he also served as (i) Deputy Member of the Board of Directors (2005 -2007); (ii) Global Director of Strategic Planning (2008 - 2009 and 2011); and (iii) Global Director of Human Resources and Governance (2009 - 2011). Main professional experience in last five years include: (i) Permanent Member of the Board of Directors of Valepar S.A. (2007 - 2008), controlling shareholder of Vale, privately-held company acting as holding; (ii) Chief and Executive Secretary of the Presidency of Banco Nacional de Desenvolvimento Econômico e Social BNDES (2007 - 2008), development bank, where he also served as Chief of the Stock Portfolio Management Department (Capital Market Division) (2005 and 2006); and Chief of the Exporting Finance Department (2001 and 2002), also at BNDES, from 1992 to 1999, he held positions in Finance Planning, Investors Relations, and Capital Market; (iii) Member of the Board of Directors of Telemar Participações S.A. (2005 - 2008), open capital company in the telecommunications sector, internet, and entertainment; (iv) Member of the Board of Directors da Suzano Papel e Celulose S.A. (2005 - 2008), open capital company



engaged in the manufacturing of cellulose and other

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pastes for paper manufacturing; (v) Consultant at McKinsey & Company, focused on basic supplies (2003 - 2005), consulting company. Graduated in Mechanic Engineering at Pontifícia Universidade Católica do Rio de Janeiro, in December 1991, and MBA in Finance at Stern School of Business, New York University, in May 2001. Mr. Luciano Siani Pires represented for all legal purposes that in the last five (5) years, she was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Vânia Lucia Chaves Somavilla

456.117.426-53

Main professional experience in last five years include: (i) Member of Decision Council of Different Consortia in the Power Sector, including: (a) Power Consortium Foz do Chapecó (2004 to 2007); (b) Consortium Estreito Energia CESTE (2006 to 2010); (c) Consortium Geração Santa Isabel GESAI (2006) and (2008 to 2010); (d) Consortium Capim Branco Energia (2006 to 2008); (e) Consortium of Usina Hidrelétrica de Aimorés (2007 to 2010); and (e) Brazilian Consortium of Palm Oil Production CBOP (extinct in 2011), of the oil and natural gas (deputy since 2010 to 2012); (ii) Member of the Board of Vale Soluções Energia S.A. VSE, privately-held company engaged in power activities (2007 to 2009); (iii) Manager of PGT Petroleum Geoscience Technology Ltda. (2008 to 2011), currently Vale Óleo and Gás S.A., privately-held company engaged in exploration and exploitation of maritime and land reservoir, research and development of technologies related to exploration activities where she served as Director-President and Member of the Board (2009 to 2010); (iv) Director (2005 to 2009) and Director-President (2009 to 2010) of Vale Energia S.A., privately-held company engaged in power activities; (v) Member of the Board of Albrás Alumínio Brasileiro S.A. (since 2009), privately-held company engaged in aluminum production; (vi) deputy member of the Board of Ultrafértil S.A. (2010 to 2011), privately-held company engaged in the production, industrialization, and sale of fertilizer and similar products, agricultural pesticides, soil corrections and other agricultural and cattle input; (vii) Director-President of Vale Florestar S.A. (since 2010), privately-held company engaged in forest projects; (viii) Director-President of Instituto Ambiental Vale (since 2010), institute that acts in the defense, preservation, conservation of biodiversity and promotion of sustainable development; (ix) Deputy Member of the Board of Vale Fertilizantes S.A. (2011 - 2012), open capital company engaged in trade, transportation, exportation and importation of phosphate and associate minerals, incorporated by Mineração Nauge S.A. in 2012; (x) Coordinator of New Business Development of power generations and Generation and Monitoring Projects to deploy hydroelectric plants of small and large size of Companhia Energética de Minas Gerais CEMIG (1995 to 2001), open capital company engaged in operation and exploration of power generation, transmission, distribution, and sale; and (xi) Director-President of Associação Vale Sustainable Development (since 2010), association engaged in the monitoring, environmental protection, and creation of new areas of preservation in biomes relevant for sustainability. Graduated in Civil Engineering at UFMG, in April 1983; post graduate in Barrage Engineering by Federal University of Ouro Preto, in April 1990; extension course on Management of Hydro Power Utilities by SIDA, Stockholm, in November 1996; MBA in Corporate Finance by IBMEC Business School, Belo Horizonte, in July 1998; and participated in Transformatonal Leadership Program by MIT in March 2005 and Mastering Leadership Program by IMD in December 2006. Ms. Vânia Somavilla represented for all legal purposes that in the last five (5) years, she was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Murilo Pinto de Oliveira Ferreira

212.466.706-82

Main professional experience in last five years include (i) Chairman of the Board of Directors of Alumina Norte do Brasil S.A. - Alunorte (2005 to 2008), privately-held company engaged in alumina production; (ii) Member of Decision Council of Albras Alumínio Brasileiro S.A. (2005 to 2007), privately-held company engaged in aluminum production, and Vale interest in the company was sold to Hydro in February 2011; (iii) Member of the Board of Directors of ThyssenKrupp Companhia Siderúrgica do Atlântico (2005 to 2007), privately-held company engaged in steel industry; (iv) Chairman of the Board of Directors of Ferro Gusa Carajás S.A. (2005 to 2006), privately-held company engaged in pig iron production, incorporated into Vale in 2008; (v) Managing Director of Vale do Rio Doce Energia S.A., currently Vale Energia S.A., (2005 to 2007), privately-held company engaged in power activities; (vi) Chairman of the Board of Directors of Mineração Rio do Norte S.A. (2006 to 2008), privately-held company engaged in bauxite extraction, where Vale holds 40% of the voting capital; (vii) Member of the Board of

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Directors of Mineração Onça Puma Ltda. (2007 to 2008), privately-held company engaged in nickel mining activities, incorporated into Vale in 2008; (viii) Chairman of the Board of Directors of Valesul Alumínio S.A. (2006 to 2008), privately-held company engaged in the production of aluminum and primary alloys; (ix) Director-President of Vale Canada Limited (2007 to 2008), nickel production company turned privately-held in 2007, where he also served as Member of the Board (2006 to 2007); (x) Member of the Board of Directors of Vale Canada Holdings (2006 to 2008), privately-held holding, where he also served as Director and Vice-President of the Executive Committee (2007 to 2008); (xi) Member of Board of Commissioners of PT Vale Indonesia Tbk (2007 to 2008), open capital company that develops mining activities, where Vale holds 59.14% of the capital stock; (xii) Director and Chairman of the Board of Directors of Vale Nouvelle-Calédonie S.A.S. (2007 to 2008); (xiii) Member of the Board of Directors of Usinas Siderúrgicas de Minas Gerais S.A. - USIMINAS (2006 to

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2008), open capital company engaged in the steel industry; (xiv) Member of Managing Council of Associação Instituto Tecnológico ITV (since 2011), association that promotes research aiming the development of research for sustainable technology development; (xv) Financial Management of Carafba Metais S.A. (1979 to 1980), turned privately-held in 2009 and develops copper metallurgy activities and derivatives; and (xvi) Partner of Studio Investimentos (October 2009 to March 2011), asset management company focused on the Brazilian stock market. Graduated in Business Administration at Fundação Getúlio Vargas de São Paulo on August 16, 1977, post graduate in Administration and Finance by Fundação Getúlio Vargas do Rio de Janeiro on May 4, 1982, and Executive specialization (Senior Executive) by IMD Business School, Lausanne, Switzerland, concluded on December 9, 2007. Mr. Murilo Ferreira represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Gerd Peter Poppinga

604.856.637-91

Main professional experience in last five years include: (i) Executive Vice President, Asia-Pacific (since November 2009); (ii) Executive Vice President, Strategy, Business Development, HR and Sustainability (January – October 2009); (iii) Executive Vice President, Strategy, HR, Sustainability and IT (May 2008 – December 2008); and (iv) Executive Vice President Strategy and TI (November 2007 – April 2008) of Vale Canada Limited, privately-held controlling shareholder in Canada, engaged in nickel exploration activity; (v) President (since November 2009), (vi) Member of the Board of Directors (since November 2007) and Chairman of the Board of Directors (June 2011 – January 2012) of Vale Nouvelle-Caledonie S.A.S, privately-held subsidiary in New Caledonia, engaged in nickel exploration activities; (vii) Commissioner (since April 2009), President Commissioner (since March 2010) and Vice-President Commissioner (April 2009 – March 2010) of PT Vale Indonesia Tbk, open capital subsidiary in Indonesia, engaged in nickel exploration activities; (viii) Director of Vale Japan Limited (since March 2010), privately-held trading subsidiary in Japan; (ix) Director of Vale Nickel (Dalian) Co., Ltd. (since March 2010), privately-held subsidiary in China, engaged in nickel exploration activities; (x) President of Vale Technology Development (Canada) Limited (June 2008 – April 2010), privately-held subsidiary in Canada, service provider related to IT. He also served at Samitri, open capital company incorporated in Vale in 2001, engaged in mining activities, as: (a) Commercial Director (1995 - 1999); (b) Managing Director of Complexo de Mina de Alegria/Mariana (1992 - 1994); (c) Manager of the Planning and Quality Control Area (1987 - 1992); and (d) Exploration Geologist (1984 - 1987). Graduated in Geology at UFRJ (1978 - 1980) and Universität Erlangen (1981 - 1982), in Germany, post graduate in geology and Mine Engineering at Universität Clausthal – Zellerfeld (1983 - 1984). He also holds the following specializations: geostatistics at UFOP; Executive MBA by FDC; Industrial Marketing, Negotiation Dynamics Supply Chain Management by INSEAD; Senior Leadership Program by MIT; Leadership Program by IMD Business School and Strategic Megatrends with Asia Focus by Kellogg Singapore. Mr. Gerd Peter Poppinga represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Humberto Ramos de Freitas

222.938.256-04

Main professional experience in last five years include (i) Member of Board of Directors of MRS Logística S.A. (December 2010 – October 2012), open capital company working with cargo transportation, where Vale directly and indirectly holds 45.84% of the total capital; (ii) Managing President of Valesul Alumínio S.A. (August 2003 to February 2007), subsidiary of Vale, privately-held company engaged in aluminum production; (iii) General Port Superintendent of Companhia Siderúrgica Nacional (December 1997 to November 1999), open capital company engaged in steel industry; (iv) Planning Manager and Operation Control /Marketing Interface of Carafba Metais S.A. (1979 to 1985), mining company, turned privately-held in 2009. He also served as (v) President of the Decision Council of ABTP - Associação Brasileira de Terminais Portuários (since May 2009), non-profit partnership dealing with issues related to port activities. Graduated in Metallurgy Engineering at Escola de Minas de Ouro Preto (1976), specialization course for Executives (Senior Executive) at MIT, USA (2005), and extension courses in (i) Advanced Management Program (PGA) by Fundação Dom Cabral (offered by INSEAD) (2004); (ii) Partnership for Corporate Development (PDE) by Fundação Dom Cabral (1996); (iii) Executive Development Program by J.L. Kellogg School of Management, Northwestern University, in the USA (1995); (iv) Business Strategic Planning by McKinsey Consulting (1993); and (v) Management Studies by

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the Association of Overseas Technical Scholarship, in Japan (1991). Mr. Humberto Freitas represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Galib Abrahão Chaim

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132.019.646-20

Main professional experience include (i) Industrial Director of Alunorte Alumina do Norte do Brasil S.A., privately-held company working with alumina production (1994 to 2005); (ii) Industrial Superintendent of Albras Alumínio Brasileiro S.A. works with aluminum production (1984 to 1994); and (iii) Technical Superintendent of Mineração Rio do Norte S.A., privately-held company working in bauxite exploration and sale (1979 to 1984). Graduated in Engineering at the Federal University of Minas Gerais (1975) and MBA in Corporate Management at Fundação Getúlio Vargas. Mr. Abrahão Chaim Galib represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Roger Allan Downey

623.291.626-34

Main professional experience in last five years include: (i) Partner Director of CWH Consultoria Empresarial SC Ltda.(January 2012 to April 2012), privately-held company offering consulting services; (ii) Deputy Member of the Board of Directors of Valepar S.A. (February 2012 to April 2012), controlling shareholder of Vale, privately-held company acting as holding; (iii) Managing President of MMX Mineração e Metálicos S.A. (August 2009 to November 2011), open capital mining company; and (iv) Director of Variable Revenue Analysis of Banco de Investimentos Credit Suisse (Brasil) S.A. (August 2005 to August 2009), privately-held securities broker and investment bank. He also served as Commercial Manager, Marketing and New Business Manager at Rio Tinto (October 1996 to September 2002), open capital company engaged in mining activities, and as Market Coordinator at CAEMI (December 1991 to October 1996), open capital company incorporated by Vale in 2006, that acted in mining and metallurgy. Started his professional career as auditor at Arthur Andersen SC in 1985. Graduated in Business Management at *University of Western Australia*, on November 7, 2001, and Business Administration at *Australian National Business School/UWA*, on October 7, 2002, and *MBA by University of Western Australian*, on April 28, 2003. Mr. Roger Allan Downey, represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Francisco Ferreira Alexandre

301.479.484-87

Deputy Member of the Board of Directors of Vale (since April 2013). Main professional experience in last five years include: (i) Superintendent Director of Brasil Foods Previdência Privada - BFPP (since 2012), pension fund; (ii) Management Director of PREVI Caixa de Previdência dos Funcionários do Banco do Brasil (2003 - 2010), pension fund; (iii) Vice-President of the of the Board of Directors of Empresas Perdigão S.A. (2003 - 2009), animal protein derivative food company; (iv) Vice-President of the Board of Directors of BRF Brasil Foods S.A. (de 2009 - 2011), animal protein derivative food company; and (v) Member of the Board of Directors of Kepler Weber S.A. (2011 - 2013), company engaged in the production of structures to store and transport agricultural products. Graduated in Law at Centro de Ensino Superior de Alagoas CESMAC in December 1992, also graduated in Civil Engineering at Universidade Federal de Alagoas UFAL in March 1994, with post-graduation in Economics and Personnel Management at PUC São Paulo (July 2002), MBA in Corporate Finance at IAG/PUC Rio de Janeiro (December 2004) and AMP Advanced Management Program by Harvard Business School in October 2009. Mr. Francisco Ferreira Alexandre represented for all legal purposes that in the last five (5) years, she was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

João Batista Cavaglieri

394.850.647-72

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Permanent member of the Board of Directors (since April 2013), position he held from 2007 to 2009. Main professional experience in last five years include: (i) President of the Union of Workers of Railroads of the States of Espírito Santo and Minas Gerais - SINDFER (2002 to today), where he also acted as Financial Manager (1996 to 2001); and (ii) acted in different positions at Estrada de Ferro Vitória a Minas, in Wagon Maintenance, since joining Vale in October 1973 until May 1996, when he started acting in the Union of Workers of Railroads of the States of Espírito Santo and Minas Gerais. He studied Maintenance Mechanics at SENAI in 1970. Mr. João Batista Cavaglieri represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing

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suspension or disqualification for the engagement in any professional or commercial activity.

Hidehiro Takahashi

949.725.917-49

Deputy Member of the Board of Directors of Vale (since May 2013), where he also acted as Deputy Member of the Board of Directors (2005 to 2009). Main professional experience in last five years include: (i) Operating Officer, Mineral & Metal Resources Business Unit da Mitsui & Co (since 2009) (ii) Executive Director Vice-President of Mitsui & Co. (Brasil) S.A. (2005 to 2009), (iii) General Manager of the Department for Americas, Africa, and Europe, Iron Ore Division of Mitsui (2002 to 2005), (iv) Director, General Manager of Metals Raw Materials Division of Mitsui Brasileira Importação e Exportação S.A. (2004 to 2008), privately-held company engaged in trading activities, branch of Rio de Janeiro (1997 to 2002); (v) Member of the Board of Directors of Caemi Mineração e Metalurgia S.A. (1997 to 2002), company acquired by Vale; (vi) General Manager of the Department for Americas, Africa, and Europe, Iron Ore Division (1995 to 1997) of Mitsui; (vii) Director of the Steel Raw Material Department of Mitsui Brasileira Importação e Exportação S.A., branch of Rio de Janeiro (1989 to 1995). Graduated in Political Economy by the Economics School of the University of Keio, Waseda (Japan), in March/1980. Mr. Hidehiro Takahashi represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

José Mauro Mettrau Carneiro of Cunha

299.637.297-20

Member of the Board of Directors of Vale (since 2010). Main professional experience in last five years include: (i) President of the Board of Directors (since 2009) and Managing President (in 2013) of OI S/A; (ii) Chairman of the Board of Directors of (a) Tele Norte Leste Participações S.A. ( TNL ) (2007 - 2012), (b) Telemar Norte Leste S.A. (2007 - 2012), (c) Oi S.A. (since 2009), (d) Tele Norte Celular Participações S.A. (2008 - 2012), all of them open capital companies in the telecommunications sector, (iii) Chairman of the Board of Directors of (a) Coari Participações S.A. (2007 - 2012) and (b) Dommo Empreendimentos Imobiliários (since 2007), formerly known as Calais Participações S.A., both open capital companies working as holding. And (i) Permanent Member of Board of Directors of Santo Antonio Energia S.A. (since 2008), privately-held company working with power production, and (ii) Deputy Member of the Board of Directors of Telemar Participações S.A, open capital company in the telecommunications sector (since 2008); (iii) Chairman of the Board of Directors of TNL PCS S.A. (2007 - 2012), telecommunications company, and (iv) Permanent Member of Board of Directors of Log-In Logística Intermodal S/A (2007 - 2011), open capital company working with intermodal transportation, where Vale holds 31.3% of the capital stock; and (v) Permanent Member of Board of Directors of Lupatech S/A (2006 - 2012), open capital company that develops energy products and is engaged in flow control and metallurgy activities. Additionally to the above he also served as (i) Permanent Member of Board of Directors of the following open capital companies: (a) Braskem S.A (2007 to 2010), petrochemical company, where he served as Vice-President of Strategic Planning (2003 to 2005); (b) LIGHT Serviços de Eletricidade S/A (1997 to 2000), power distributor; (c) AraCruz Celulose S.A. (1997 to 2002), paper production; (d) Politeo Indústria and Comércio S/A (2003 to 2004), petrochemical company; (e) BANESTES S.A. - Banco do Estado do Espírito Santo (2008 to 2009), financial institution; and (f) TNL (1999 to 2003), where he also served as Deputy Member of the Board of Directors (2006). Graduated in Mechanic Engineering at Universidade Católica de Petrópolis, RJ, December 1971, participated in the Executive Program in Management at Anderson School, at the University of California Los Angeles (EUA) , December 2002. Mr. José Mauro Mettrau Carneiro of Cunha represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Luciano Galvão Coutinho

636.831.808-20



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Member of the Board of Directors (since 2007) and Member of the Strategic Committee of Vale (since 2009), served before (2005 to 2006). Main professional experience in last five years include: (i) President of Banco Nacional de Desenvolvimento Econômico and Social BNDES (since 2007), development bank; (ii) Member of Board of Directors of Petróleo Brasileiro S.A. PETROBRAS (2013 to April 2014), open capital company working with oil and gas exploration and refinement and production of derivatives; (iii) Partner of LCA Consultores (1995 to 2007), company working with consulting services; (iv) Partner of Macrotempo Consultoria (1990 to 2007), company working with consulting services; (v) Member of Board of Directors of Ripasa S.A. Celulose and Papel (2002 to 2005), open capital company working with the manufacturing of cellulose and paper. He also served as (i) Member of Board of Directors of Guaraniana, currently Neoenergia S.A., (2003 to 2004) open capital company acting as holding in the power sector; (ii) Member of the International Consulting Council of Fundação Dom Cabral (since 2009), education institution aiming the development of executives,

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businessmen and companies; (iii) Member of the Curator Council of Fundação Nacional de Qualidade ( 2013 - 2016), entity aiming the development of management excellence foundations; and (iv) Member of Director Council of Fundo Nacional de Desenvolvimento Científico e Tecnológico (since 2007), financial assistance entity. Graduated in Economics at University of São Paulo (USP) in June 1969, master's degree in Economics at Instituto de Pesquisas Econômicas, in June 1970, and doctor's degree in Economics from Cornell University, in January 1975. Mr. Luciano Galvão Coutinho represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Luiz Carlos de Freitas

659.575.638-20

Deputy Member of the Board of Directors (since 2007), position held in 2003, and member of the Comptroller Committee of Vale (since 2007). Main professional experience in last five years include: (i) Deputy Member of the Board of Directors of Valepar S.A. (since 2005), controlling shareholder of Vale, privately-held company acting as holding; and (ii) Superintendent of Bradespar S.A. (de 2000 to 2007), open capital company holding interest in Valepar S.A., working as holding. Graduated in Accounting Sciences at Faculdade de Ciências Econômicas and Administrativas de Osasco December 1990. Mr. Luiz Carlos de Freitas represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Mário da Silveira Teixeira Júnior

113.119.598-15

Vice-Chairman of the Board of Directors of Vale (since 2003), where he also serves as Member of the Strategic Committee (since 2006). Main professional experience in last five years include: (i) Vice-Chairman of the Board of Directors of Valepar S.A. (since 2003), controlling shareholder of Vale, privately-held company acting as holding; (ii) Member of Board of Directors of Banco Bradesco S.A. (since 1999), financial institution where he also serves as (iii) Member and Coordinator of the Internal Control and *Compliance Committee* (since 2004), and (iv) Member of the Compensation Committee (since 2004), and where he served as (v) Member and Coordinator of the Audit Committee (2004 to 2009), (vi) Department Director (1984 to 1992), (vii) Executive Managing Director (1992 to 1998), and (viii) Executive Director Vice-President (1998 to 1999); (ix) Member of Board of Bradesco Leasing S.A. - Arrendamento Mercantil (since 1998), privately-held company working with leasing operations, where he also served as (x) Director (1992 to 1998); (x) Member of the Board of Directors of Bradespar S.A. (since 2002), company that holds interest in Valepar, acting as holding; (x) Member of the Board of Directors of Cidade de Deus Companhia Comercial de Participações S.A. (since 2002), holding of non-financial institutions; (xi) Director of Nova Cidade de Deus Participações S.A. (since 2002), holding of non-financial institutions; (xii) Director of Telecel Telecomunicações Ltda. (since 2005), company engaged in the STFC telecommunication sector; (xiii) Director at NCF Participações S.A. (since 2002), holding of non-financial institutions; (xiv) Member of the Board of Directors of BBD Participações S.A. (since 2006), holding of non-financial institutions; (xv) Member of the Board of Directors and Coordinator of the Strategic Committee of BSP Park Estacionamentos e Participações S.A. (since 2012), holding of non-financial institutions; (x) Representative Member of the Board of Directors of Banco Espírito Santo de Investimento S.A. (2002 to 2009), privately-held financial institution; (xi) Member of Board of Directors of Banco BERJ (2011 -2012), open capital financial institution. He also served the following open capital companies as: (1) Member of Board of Directors of Bradespar S.A. (2002 and 2000 -2001), open capital holding interest in Valepar S.A., acting as holding, where he also served as (ii) Director-President (2001 to 2002); (iii) Member of Board of Directors of Bradesplan Participações S.A. (1999 and 2002 to 2006), open capital turned privately-held in 2006, acting as holding, where he also served as (iv) Director (1998), and (v) Director-President (2001 to 2002); (vi) Member of Board of Directors of CPFL Energia (2001 and 2003 to 2006), open capital company acting as holding; (viii) Member of Board of Directors of CPFL Geração de Energia S.A. (2001 and 2003 to 2005), open capital company acting as holding; (viii) Member of Board of Directors of CPFL (1997 and 2001 to 2005), open capital company acting as power distributor; (xx) Member of the Board of Directors of Companhia Piratininga de Força and Luz (2003 to 2005), open capital company acting as power distributor; (xxi) Permanent Member of Board of Directors of CSN(1996 to 2000), open capital company acting in the steel industry; (ix) Member of Board of Directors of COFAP - Companhia Fabricadora de Peças (1996 to 1997), open capital company turned privately-held in

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2002, manufacturer of parts and accessories for automotive vehicles; (xi) Permanent Member of Board of Directors of Tigre S.A. (1997 to 1998), open capital company turned privately-held in 2003, manufacturer of tubes and plastic accessories to be used in civil construction; (xi) Member of Board of Directors of VBC Energia S.A. (1997 to 2000 and 2003 to 2005), open capital company turned privately-held in 2011, working as holding, where he also served as (xii) Chairman of the Board of Directors (2001 to 2003); (xii) Member of Board of Directors of São Paulo Alparbatas S.A. (1996 to 1999), open capital company working in the preparation and threading of cotton fibers; (xxvii) Deputy Member of the Board of Directors of Net Serviços de Comunicação S.A. (1998 to 2000), open capital company working in cable TV services; (xiv) Member of Board of Directors of Banco Bradesco BBI S.A. (2004), financial institution turned privately-held in 2004; (xv) Deputy Member of the Board of Directors of Rio Grande Energia (1997 to 2000), open capital company working with power distribution; (xxx)

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Member of Board of Directors of Scopus Tecnologia (1992 to 1994), open capital company turned privately-held in 1992, working as retailer of computing supplies and equipment. He also served in extinct companies as: (i) Pevê Prédios; (ii) Banco Baneb S.A.; (iii) Banco BCN S.A.; (iv) Banco BEA S.A.; (v) Banco BEC S.A.; (vi) Bancocidade Leasing Arrendamento Mercantil; (vii) Banco de Crédito Real de Minas Gerais S.A.; (viii) Banco Mercantil de São Paulo S.A.; (ix) Baneb Leasing; (x) Boavista S.A.; (xi) Pevê Finasa Participações and Prédios(xii) Finasa Leasing Arrendamento Mercantil; and (xiii) Banco Bradesco de Investimento. Graduated in Civil Engineering, December 1970, and Business Administration, December 1976, both at Universidade Presbiteriana Mackenzie. Mr. Mário da Silveira Teixeira Júnior represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Oscar Augo de Camargo Filho

030.754.948-87

Member of the Board of Directors of Vale (since 2003), Member of the Strategic Committee (since 2006) and Member of the Executive Development Committee (since 2003). Main professional experience in last five years include: (i) Permanent Member of Board of Directors of Valepar S.A. (since 2003), controlling shareholder of Vale, privately-held company acting as holding; and (ii) Partner of CWH Consultoria Empresarial (since 2003), and company working with consulting services. He also served as Manager of the following open capital companies: (i) Chairman of the Board of Directors of MRS Logística S.A. (1996 to 2003), open capital company working with cargo railroad transportation; and (ii) Director-President and Member of Board of Directors of Caemi Mineração and Metalurgia S.A. (1996 to 2003), open capital mining company e metallurgy, incorporated into Vale in 2006. Graduated in Law at Law School of University of São Paulo (USP) Dec 1963, and post graduate in International Marketing by Cambridge University Sep 1970 Mr. Oscar Augo de Camargo Filho represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Laura Bedeschi Rego de Mattos

253.585.728-64

Deputy Member of the Board of Directors of Vale (since February 2014) and member of the Executive Development Committee (since February 2013). Main professional experience include: (i) Deputy Member of the Board of Directors of Valepar (2010 to February 2014), controlling shareholder of Vale, privately-held company acting as holding; (ii) Chief of the Management and Accompaniment Department of the Shareholding Portoflio of Banco Nacional de Desenvolvimento Econômico e Social BNDES, development bank (since 2012)(iii) Deputy Member of the Board of Directors of OI S.A., open capital telecommunications company (since 2001); (iv) Deputy Member of the Board of Directors of América Latina Logística S.A., open capital company acting with logistics, (v) Deputy Member of the Board of Directors (since 2011) and Permanent Member of the Finance Board (since 2012) of Fibria S.A., open capital company acting in the cellulose segment Graduated in Chemical Engineering at the Universidade Federal do Rio de Janeiro in 1999 and Master's Degree in Energy Planning Sciences at the Universidade Federal do Rio de Janeiro in 2002 and Lato Sensu Post-Graduation in Finances at IBMEC in 2007. Ms. Laura Bedeschi Rego de Mattos represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Eduardo Fernando Jardim Pinto

226.158.813-53

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Deputy Member of the Board of Directors of Vale (since April 2013) and Permanent Member of the Board of Directors of Vale (2005 – 2007 and 2009 – 2011)). Main professional experience include: (i) President of the Union of Railroad Workers in the States of Maranhão, Pará, and Tocantins (since 2007); (ii) President of STEFEM, union body (since 1993); (iii) Train Operator at Vale (1983 – 1993). Graduated in Law by Faculdade São Luis in July 2006. Mr. Eduardo Fernando Jardim Pinto represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

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Renato de Cruz Gomes

426.961.277-00

Member of the Board of Directors and Member of the Governance and Sustainability Committee of Vale (since 2001). Main professional experience in last five years include: (i) Director and (ii) Member of the Board of Directors of Valepar S.A. (since 2001), controlling shareholder of Vale, privately-held company acting as holding; (iii) Director of Investors Relations of Bradespar S.A. (since 2000), open capital company with interest in Valepar S.A., engaged in holding activities. He also served as Manager in the following open capital companies: (i) Member of the Board of Directors of AraCruz Celulose S.A., currently Fibria S.A., open capital company operating in the Production of White Fiber Eucalyptus Cellulose; (ii) Member of the Board of Directors of Iochpe-Maxion S.A., open capital company engaged in the Manufacturing of parts and accessories for automotive vehicles; (iii) Member of the Board of Directors of Bahia Sul Celulose S.A., currently Suzano Celulose S.A., open capital company engaged in the manufacturing of cellulose and other pastes for paper manufacturing; (iv) Member of the Board of Directors of Globo Cabo S.A., currently Net Serviços de Comunicação S.A., open capital company engaged in the provision of cable TV services; and (v) Deputy Member of the Board of Directors of Latasa Alumínio S.A., currently Rexam Beverage Can South America S.A., turned into privately-held company engaged in the manufacturing of metallic packaging. Graduated in Engineering at the Federal University of Rio de Janeiro (UFRJ) in December 1976, and post graduate in Corporate Management by Sociedade de Desenvolvimento Empresarial (SDE/IBMEC). Mr. Renato de Cruz Gomes represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Sandro Kohler Marcondes

485.322.749-00

Deputy Member of the Board of Directors of Vale (since Apr 2011), where he served as de Member of the Board of Directors (Apr 2007 to Mar 2011). Main professional experience in last five years include: (i) Deputy Member of the Board of Directors of Valepar S.A. (since 2009), controlling shareholder of Vale, privately-held company acting as holding; (ii) Director of Banco do Brasil S.A. (since 2005), financial institution; (iii) Director do BB Leasing S.A. Arrendamento Mercantil (since 2005), privately-held company working with leasing; (iv) Chairman of the Board of Directors of Banco do Brasil A.G., Viena (2008 to 2009), subsidiary of Banco do Brasil S.A. in Austria; (v) Member of Board of Directors of BB Securities Ltd Londres (since 2005), securities broker abroad; (vi) Member of the Board of Directors of BB Securities LLC New York (since 2005), securities broker abroad; (vii) Member of the Deliberative Council of BBTur Viagens and Turismo Ltda, corporate tourism agency (since 2005); and (viii) Deputy Member of the Board of Directors of Banco Patagônia S.A. (2011 - 2012), open capital financial institution, (ix) Permanent Member of the Audit Council of PREVI - Caixa de Previdência dos Funcionários do Banco do Brasil (since 2012), complimentary pension fund; and (x) Permanent Member of the Deliberation Committee of health care plans operator CASSI - Caixa de Assistência de Funcionários do Branco do Brasil (since 2012). Graduated in Business Administration at Universidade Estadual Centro Oeste PR, in December 1986 and master s degree in Business Administration in April 1994 by Fundação Getulio Vargas (FGV) de São Paulo. Mr. Sandro Kohler Marcondes represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Robson Rocha

298.270.436-68

Member of the Board of Directors of Vale (since 2011). Main professional experience in last five years include: (i) Vice-President de of Personnel Management e Sustainable Development at Banco do Brasil S.A. (since 2009), open capital financial institution, where he also served as (ii) Director (2008 to 2009). ; (iii) Vice-Chairman of the Board of Directors of CPFL Energia S.A. (Apr 2010 - Apr 2011), open capital company acting as holding in the power sector; and (iv) Member of Board of Directors of Banco Nossa Caixa S.A. (May to Nov 2009), financial institution turned privately-held in 2009. Graduated in Business Administration at UNICENTRO - Newton Paiva, Belo Horizonte, Dec 1998, Course in Basic General Training for Senior Executives by UFMG in December 1997, post graduate in Strategic Management by the Federal

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University of Minas Gerais (UFMG) March 2001; MBA in finance by Fundação Dom Cabral in December 2002, and master's degree in Marketing by the Fundação Ciências Humanas Pedro Leopoldo in December 2001. Mr. Robson Rocha represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

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João Batista Cavaglieri

394.850.647-72

Member of the Board of Directors (since April 2013), position he held between 2007 and 2009. Main professional experience in last five years include: (i) Chairman of the Union of Workers in Railroad Companies in the States of Espírito Santo and Minas Gerais SINDFER (since 2002), where he also acted as Financial Director (1996 to 2001); and (iii) acted in different positions at Estrada de Ferro Vitória a Minas, in the Wagon Maintenance area, since his admittance at Vale in October 1973 to May 1996, when he started acting at the Union of Workers in Railroad Companies in the States of Espírito Santo and Minas Gerais. Mr. João Batista Cavaglieri represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Marco Geovanne Tobias of Silva

263.225.791-34

Deputy Member of the Board of Directors of Vale (since 2011). Main professional experience in last five years include: (i) Permanent Member of Board of Directors of Valepar S.A. (since 2011), controlling shareholder of Vale, privately-held company acting as holding; (ii) Investor Relations Manager at Banco do Brasil S.A. (1999 to 2010), open capital financial institution; (iii) Participation Director of PREVI - Caixa de Previdência dos Funcionários do Banco do Brasil (since 2010), complementary pension fund; (iv) Chairman of Board of Directors of Companhia de Energia Elétrica da Bahia Coelba (2002 to 2010), open capital company that acts with power distribution and sale; and (v) Chairman of the Board of Directors of Neoenergia S.A. (since 2011), open capital company acting as holding in the power sector, where he also served as Chairman of the (a) Audit Committee and the (b) Compensation Committee, both since 2011; (vi) Chairman of the Board of Directors of Companhia Energética do Rio Grande do Norte COSERN (since 2011), open capital company engaged in power distribution and sale; (vii) Chairman of the Board of Directors of Companhia Energética de Pernambuco CELPE (since 2011), open capital company engaged in power distribution and sale; (viii) Member of the Board of Directors of Litel Participações S.A. (since 2011), open capital company acting as holding and holding 48.79% of Valepar S.A., controlling shareholder of Vale; (ix) Member of the Board of Directors of Litela Participações S.A. and Litelb Participações S.A. (since 2011), companies acting as holding and direct controlling shareholders of Litel Participações S.A.; (x) Member of the Board of Directors of 521 Participações S.A. (since 2011), open capital company acting as holding; (xi) Chairman of the Board of Directors of companies controlled by the holding Neoenergia S.A., listed below, engaged with the study, design, construction and exploration of power generation and transmission services and related services: open capital: (a) Afluente Geração de Energia Elétrica S.A.; (b) Afluente Transmissão de Energia Elétrica S.A.; (c) Itapebi Geração de Energia S.A. and (d) Termopernambuco S.A.; and privately-held: (a) Baguari I Geração de Energia Elétrica S.A.; (b) Bahia PCH I S.A.; (c) Bahia Pequena Central Hidrelétrica S.A. (Bahia PCH II); (d) Bahia Geração de Energia S.A. (Bahia PCH III); (e) Geração Céu Azul S.A.; (f) Geração CIII S.A.; (g) Goiás Sul Geração de Energia S.A.; (h) NC Energia S.A.; (i) SE Naranjita S.A. and (j) PCH Alto do Rio Grande S.A.; and (xii) Chairman of the Board of Directors of Belo Monte Participações S.A. (since 2011), company acting as holding, controlled by Neoenergia S.A.. Graduated in Economics at Universidade de Brasília in June 1990 and post graduate in Marketing by COPPEAD/Federal University of Rio de Janeiro in March 1996, he concluded Master's degree in Administration by IBMEC in December 2013. Mr. Marco Geovanne Tobias of Silva represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Hayton Jurema da Rocha

153.667.404-44

Deputy Member of the Board of Directors of Vale (since April/2013). Main professional experience include: (i) CEO of health-care plan operator CASSI - Caixa de Assistência de Funcionários do Branco do Brasil (2010 - 2011); (ii) State Superintendent of Alagoas (1995),



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Pernambuco (1996 - 1998), Bahia (1999 and 2000), Federal District (2003 - 2005) of Banco do Brasil S.A., open capital financial institution, where he also served as Director of Personnel Management (2000 - 2002) and currently serves as Director of Marketing and Communication (since 2012); (iv) Member of the Fiscal Board of WEG S.A. (2010 - 2013). Graduated in Economic Sciences at Universidade Federal de Alagoas in 1983, post-graduation Lato Sensu Executive MBA in Business Management at Universidade Federal de Pernambuco in 1997 and post-graduation Lato Sensu Specialization in Marketing at Pontifícia Universidade Católica do Rio de Janeiro in 2006. Mr. Hayton Jurema da Rocha represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

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[Hiroyuki Kato

000.000.000-00

Member of the Board of Directors of Vale (Since April 2014). Main professional experience in last five years include the following positions at Mitsui & Co., Ltd. open capital trading company; Executive Director and Energy Business Unit I Operations Director (April 2012 to March 2014); Energy I Operations Director (April 2010 to March 2012); General Manager of the Exploration and Production Division Energy Business Unit I, at the headquarters in Tokyo (May 2008 to March 2010), General Manager of the Coal Division Energy Business Unit I, at the headquarters in Tokyo (April 2007 to April 2008); (ii) Member of the Board of Directors at Mitsui Oil Exploration Co., Ltd., closed capital oil and gas company companhia (since June 2008); (iii) Member of the Board of Directors at Canada Oil Sands Co., Ltd., closed capital oil and gas company (June 2010 to October 2013); (iv) Member of the Board of Directors at Mitsui Oil Co., Ltd., closed capital company that sells oil products (June 2010 to June 2012). Graduated in Commercial Science by the Keio University in 1979 and MBA in Administration by the MIT Sloan School of Management in 1996. Mr. Hiroyuki Kato represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Eduardo de Oliveira Rodrigues Filho

442.810.487-15

Deputy Member of the Board of Directors of Vale (since 2011) and member of the Financial Committee (since 2011). Main professional experience in last five years include: (i) Deputy Member of the Board of Directors of Valepar S.A. (Apr 2008 to Jan 2012 ), controlling shareholder of Vale, privately-held holding company; (ii) Partner at CWH Consultoria Empresarial (since 2008), company engaged in consulting services; (iii) Commercial Director of Rio Tinto Brasil Ltda. (acquired by Vale in 2009, currently Mineração Corumbaense Reunida S.A.), privately-held mining company (1994 to 2008). Graduated in Civil Engineering at Pontifícia Universidade Católica do Rio de Janeiro, in Dec 1978, and post-graduate in Transportation Planning at PCL Politechnic of Central London, in October 2000. Mr. Eduardo de Oliveira Rodrigues Filho represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Luiz Maurício Leuzinger

009.623.687-68

Deputy Member of the Board of Directors of Vale (since May 2012), where he also served in 2003. He also serves as Member of the Financial Committee (since May 2007) and Member of the Executive Development Committee (since May 2012). Main professional experience in last five years include: (i) Director-President of Bradespar S.A. (since 2012), open capital company with interest in Valepar S.A., working as holding, where he also served as (ii) Director (2003 to 2007); (iii) Member of Board of Directors of Valid Soluções e Serviços de Segurança em Meios de Pagamento e Identificação S.A. (since 2006), current corporate name of American Banknote S.A., open capital company working with graphic services in general and plastic, magnetic cards, service provision and others; (iv) Member of Board of Directors of Companhia Paulista de Força and Luz (2000 to 2006), on capital company working with power distribution; (v) Member of Board of Directors of Companhia Piratininga de Força and Luz (2003 to 2006), open capital that works with power distribution; (vi) Member of Board of Directors of CPFL Energia S.A. (2000 to 2006), open capital that works as *holding* in the power sector; (vii) Member of Board of Directors of CPFL Geração de Energia S.A. (2000 to 2006), open capital that works as power generator; (viii) Chairman of the Board of Directors of Rio Grande Energia S.A. (2004 to 2006), open capital company that works with power distribution, where he served as (ix) Member of Board of Directors (2000 to 2006); and (x) Director-President (1997 to 1998); and (xi) Member of Board of Directors of VBC Energia S.A. (2000 to 2006), current corporate name of Serra de Mesa Energia S.A., open capital company turned privately-held in 2011, working as holding in the power sector. Graduated in Electric Engineering at Escola Nacional de Engenharia (currently Federal University of Rio de Janeiro UFRJ) on December 1, 1965. Specialization in Economic Engineering and master's degree in Electric Engineering at *Illinois Institute of Technology*, in Chicago, USA, both on July 1, 1968. Mr. Luiz Maurício Leuzinger represented for all legal purposes that in the last five (5) years, he was not subject to any criminal

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condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Dan Antonio Marinho Conrado

754.649.427-34

Chairman of the Board of Directors and Member of the Strategic Committee of Vale since October 2012. Main professional experience in last five years include: (i) President of PREVI – Caixa de Previdência dos Funcionários do Banco do Brasil (since June 2012), pension fund; (ii) Chairman of the Board of Directors (since November/2012) and Managing Director of Valepar S.A. (since October 2012), controlling shareholder of Vale, privately-held company acting as holding; (iii) Deputy Member of the Board of Directors of Aliança do Brasil S.A. (June 2010 – June 2011), open capital insurance company; (iv) Deputy Member of the Board of Directors of BRASILPREV S.A. (January 2010 – March 2010), open capital pension fund; (v) Member of the Board of Directors of FRAS-LE S.A. (April 2010 – March 2013), open capital company acting in the

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production of friction materials; (vi) Deputy Member of the Board of Directors of Mapfre BBSH2 Participações S.A. (since June 2011), open capital insurance company; (vii) Director of Marketing and Communication of Banco do Brasil S.A. (2009), open capital financial institution, where he also served as (viii) Director of Distribution São Paulo-SP (2010 - 2011); and (ix) Vice-President of Retail, Distribution, and Operations (December 2011 - May 2012); (x) Member of the Fiscal Board of Centrais Elétricas de Santa Catarina S.A. - CELESC (April 2000 - April 2002), open capital company acting in the power distribution sector; and (xi) Member of the Fiscal Board of WEG S.A. (April 2002 - April 2005), open capital company engaged in the production of motors and supply of complete industrial electric systems. Graduated in Law at Universidade Dom Bosco/MS on December 27, 2001, and MBA at Fundação COPPEAD/Universidade Federal do Rio de Janeiro, on October 20, 1998, and MBA in Business Management at INEPAD - Instituto de Ensino e Pesquisa em Administração/Universidade Federal de Mato Grosso - UFMT, in December 2009. Mr. Dan Antonio Marinho Conrado represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Marcel Juvinião Barros

029.310.198-10

Permanent Member of the Board of Directors of Vale since October 2012 and Member of the Executive Development Committee (since February 2013). Main professional experience in last five years include: (i) Security Director at PREVI - Caixa de Previdência dos Funcionários do Banco do Brasil (since June 2012), complementary pension fund; (ii) for 34 years he served in different positions at Banco do Brasil S.A., complementary pension fund, where he also served as Union Auditor; and (iii) General Secretary of the National Federation of Employees in the Financial Segment, where he coordinated international networks. Graduated in History at FESB - Fundação Municipal de Ensino Superior de Bragança Paulista. Mr. Marcel Juvinião Barros represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Valeriano Durval Guimarães Gomes 313.022.547-15 Deputy Member of Fiscal Board of Vale (since April 2013). Main professional experience in the last 5 years include: Permanent Member of the Deliberation Council of the Association of Former Employees of Banco do Brasil (since 2011); (ii) Managing Partner of Barbosa Guimarães Consultoria Econômico-Financeira Ltda (since 2007), company engaged in the preparation of economic projects and financial consulting; (iii) Deputy Member of the Board of Directors of Neoenergia S.A. (2007 - 2010), open capital company acting as holding of the power sector; (iv) Deputy Member of the Board of Directors of Nitrocarbono S.A. (2002 - 2003), open capital company engaged in oil, fuels, petroleum, and derivatives activities; (v) Deputy member of Pronor Petroquímica S.A. (2002 - 2004), open capital company, engaged in manufacturing, processing, marketing, importing, exporting and sale of chemical and petrochemical products. Graduated in Economic Sciences at Universidade Estácio de Sá in 1978, IAG Master in Finance - Capital Market at Pontifícia Universidade Católica do Rio de Janeiro in 1998 and specialization in Conjuncture Analysis at Universidade Federal do Rio de Janeiro in 2001. Mr. Valeriano Durval Guimarães Gomes represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Marcelo Amaral Moraes

929.390.077-72

Permanent Member of Fiscal Board of Vale (since 2004), where he served as Deputy Member of the Board of Directors (2003). Main professional experience in last five years include: (i) Investment Manager at Bradespar S.A. (2000 to 2006), open capital company holding interest in Valepar S.A., engaged in holding activities; (ii) Deputy Member of the Board of Directors of Net Serviços de Comunicação S.A., company operating in cable TV services (2004 to 2005); (iii) Executive Director of Stratus Investimentos Ltda. (2006 to 2010), private equity

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manager; (iv) Executive Director of Capital Dynamics Investimentos Ltda. (since January 2012), private equity manager; and (v) Observing Member of the Board of Directors of Infinity Bio-Energy S.A. (April 2011 – March 2012). Graduated in Economics at the Federal University of Rio de Janeiro in January 1991, MBA by COPPEAD/UFRJ in November 1993, and post-graduation in Corporate Law and Arbitration at Fundação Getúlio Vargas (FGV) in November 2003. Mr. Marcelo Amaral Moraes represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

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Oswaldo Mário Pêgo de Amorim Azevedo

005.065.327-04

Deputy Member of Fiscal Board of Vale, (since 2005), where he also served as Permanent Member of Fiscal Board (2004 to 2005) and Engineer in industrial supply (Pelleting (1964 to 1976). Main professional experience in last five years include: (i) Member of the Special Consulting Council of the Union of Private Insurance, Capitalization and Reinsurance Companies of Rio de Janeiro and Espírito Santo (since 2005); (ii) Director of Sul América Cia de Seguros Gerais (2008 - 2012), privately-held insurance company; (ii) Ombudsman of Sul America Seguros, insurance company (2005 - 2012), where he also served as (iii) Vice-President of Institutional Relations e Branches Abroad (1990 to 2010); (iv) Director (1980 to 1990); and (v) Associate Director (1976 to 1980) (vi) Vice-President of the National Federation of Private Insurance and Capitalization Companies (2004 to 2007); (vii) Vice-President of the Union of Private Insurance, Capitalization and Reinsurance Companies of Rio de Janeiro (2007 - 2012), where he served as President (1989 to 1992 and 2001 to 2004); (viii) Deputy Member of the Board of Directors of Brasil Veículos Cia de Seguros (2006 to 2010) and of (ix) Brasil Saúde Cia de Seguros (2006 to 2010), privately-held insurance companies; (x) Vice-President of Sul América S.A., open capital company engaged in asset management and equities (2006 to 2007); (xi) Director and (xii) Vice-President of Sul America Cia. Nacional de Seguros, insurance company turned privately-held in 2008 (1980 to 2010); (xiii) Director and Vice-President of Nova Ação Participações S.A., open capital company engaged in asset management, especially financial applications (2006 to 2010); He also served as (i) Director and (ii) Vice-President of Sul América Terrestres, Marítimos e Acidentes Cia de Seguros, insurance company turned privately-held and incorporated into Sul America Cia. Nacional de Seguros (1980 to 1998); (iii) Director of Sul América Cia de Seguros S.A., open capital insurance company with head offices in Lima, Peru (1996 to 2003); (iv) Director of Corcovado S.A., real estate company with head offices in Lima, Peru, turned privately-held in 2004 (2003 to 2009); and (v) Director of Sul América Capitalização S.A., privately-held company engaged in the trade of capitalization bonds (1987 to 1998). Graduated in Industrial and Production Engineering at Pontifícia Universidade Católica do Rio de Janeiro (PUC) in January 1964. Mr. Oswaldo Mário Pêgo de Amorim Azevedo represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Arnaldo José Vollet

375.560.618-68

Permanent Member of Fiscal Board of Vale (since 2011). Main professional experience in last five years include: (i) Executive Officer of BB DTVM (2002 to 2009), a privately-held stock brokerage securities firm; (ii) Chief Financial Executive and Investor Relations of Companhia de Energia Elétrica da Bahia Coelba (2000 to 2002), publicly-held company engaged in the distribution and commercialization of electric energy; (iii) Member of the Fiscal Board of Telesp Celular Participações (1999 to 2000) a publicly-held telecommunications company; (iv) Member of the Fiscal Board of CELP Cia de Eletricidade de Pernambuco (2004 to 2009), a publicly-held company engaged in the distribution of electric energy; (v) Member of the Board of Directors of Guaraniã, now known as Neoenergia S.A (2002 to 2003), a publicly-held electricity holding company; (vi) Alternate Member of the Board of Directors of CEMIG Cia de Energia de Minas Gerais (2003 to 2005), a publicly-held company engaged in generation and distribution of energy; (vii) Member of Board of Directors of Pronor Petroquímica S.A. (1997 to 1998), open capital company turned into privately-held company May 2011, engaged in manufacturing, processing, sale, importing, exporting and marketing chemical and petrochemical products; and (viii) Member of Board of Directors of Nitrocarbono S.A. (1997 to 1998), open capital company incorporated in 2003 by Braskem S.A., and was engaged in the manufacturing of basic and intermediate organic products, petrochemical and coal- and alcohol- derivatives. He graduated in Mathematics at University of São Paulo (USP) in December 1975, and holds an Executive MBA in Finance by Instituto Brasileiro de Mercado de Capitais (IBMEC/RJ) in June 1992. Mr. Arnaldo José Vollet represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Dyogo Henrique de Oliveira

768.643.671-34

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Permanent Member of Fiscal Board of Vale (since April 2014). Main professional experience in last five years include: (i) Executive Associate Secretary of the Ministry of Finance (since 2014, position previously occupied from 2011 to 2013), where he also acted as (ii) Executive Secretary of the Ministry of Finance (from 2013 to 2014); (iii) Associate Secretary of Economic Policy of the Ministry of Finance (from 2008 to 2011), (iv) Chairman of the current Board of Directors of Banco Nordeste do Brasil S.A., mixed open capital company acting in the finance area, by providing financial assistance to enterprises that offer economic and social interest. He holds a degree in Economic Sciences by the Universidade de Brasília (UnB) in 1996. He holds a Master's degree in Economic Sciences by UnB concluded in 2003. He is specialist in Public Policies and Government Management by Fundação Escola Nacional da Administração Pública (FENAP) in 1998 and Specialist in Foreign Trade, International Negotiations and Exchange by Fundação Getúlio Vargas (FGV) in 2006. Mr. Dyogo Henrique de Oliveira represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or

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administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Paulo Fontoura Valle

311.652.571-49

Deputy Member of the Board of Directors (since April 2012). Main professional experience in last five years include: (i) Member of the Fiscal Council of BR Distribuidora (since 2012), privately-held company acting in the fuel sector; (ii) Member of the Fiscal Council of Petrobrás Gás S.A. Gaspetro (2010 to 2011), publicly-held company engaged in the oil and gas sectors; (iii) Member of the Fiscal Council of Petroquímica Triunfo S.A. (2006 to 2007), publicly-held company engaged in the production of oil derivatives; (iv) Member of the Board of Directors of Brasilprev Seguros e Previdência S.A. (2007 to 2009), privately-held insurance company; (v) Member of the Board of Directors of Caixa Econômica Federal CAIXA (2009 a 2012), publicly-held and privately-held financial institution. Graduated in Physical Education by Faculdade Dom Bosco de Educação Física on August 13, 1987. He concluded an Executive MBA in Finance by Instituto Brasileiro de Mercado de Capitais IBMEC, in May 1996, and specialization in Economics by George Washington University (USA) Instituto Minerva, November 1998.

Mr. Paulo Fontoura Valle represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

**12.7 Composition of the statutory committees, and auditing, financial and compensation committees.**

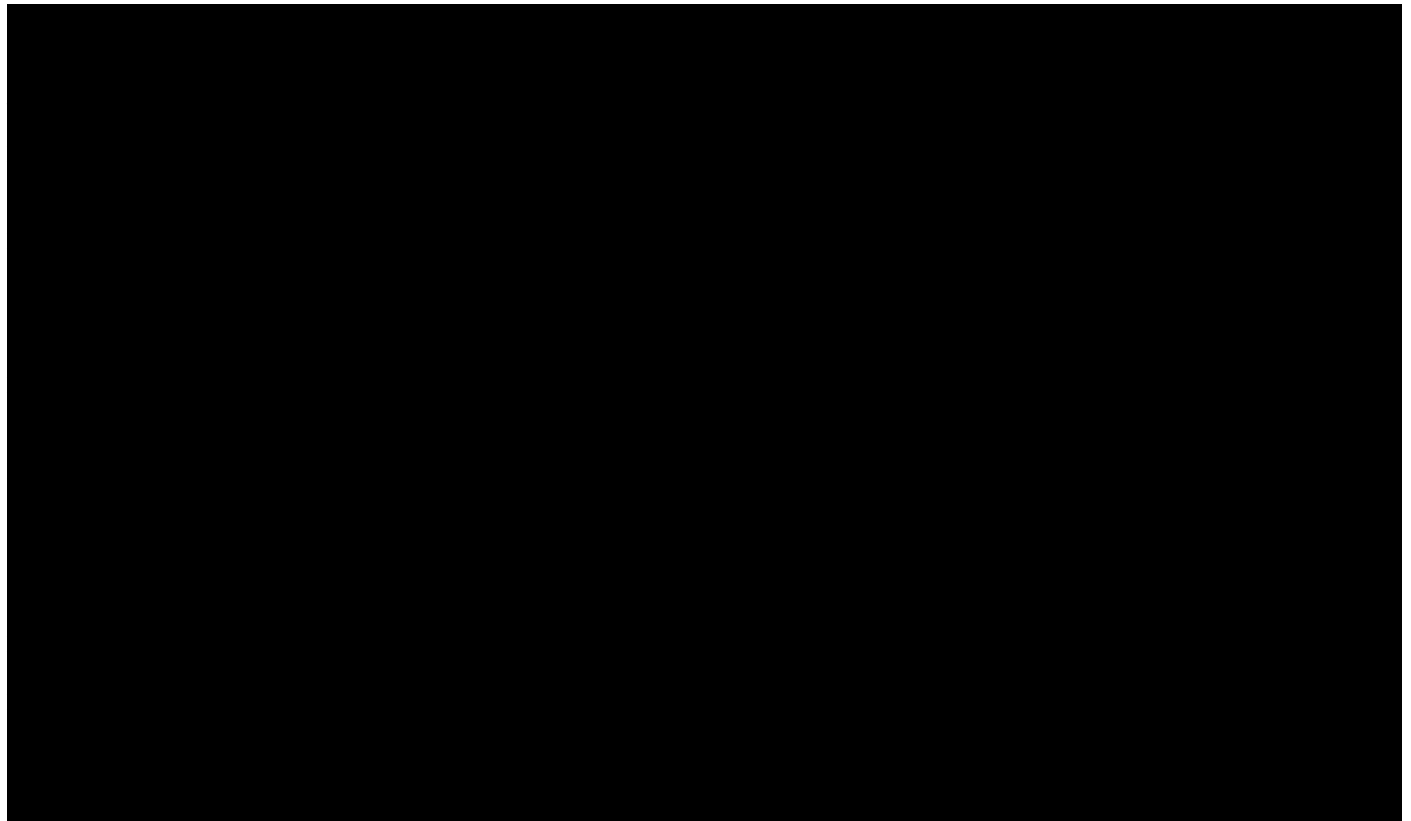
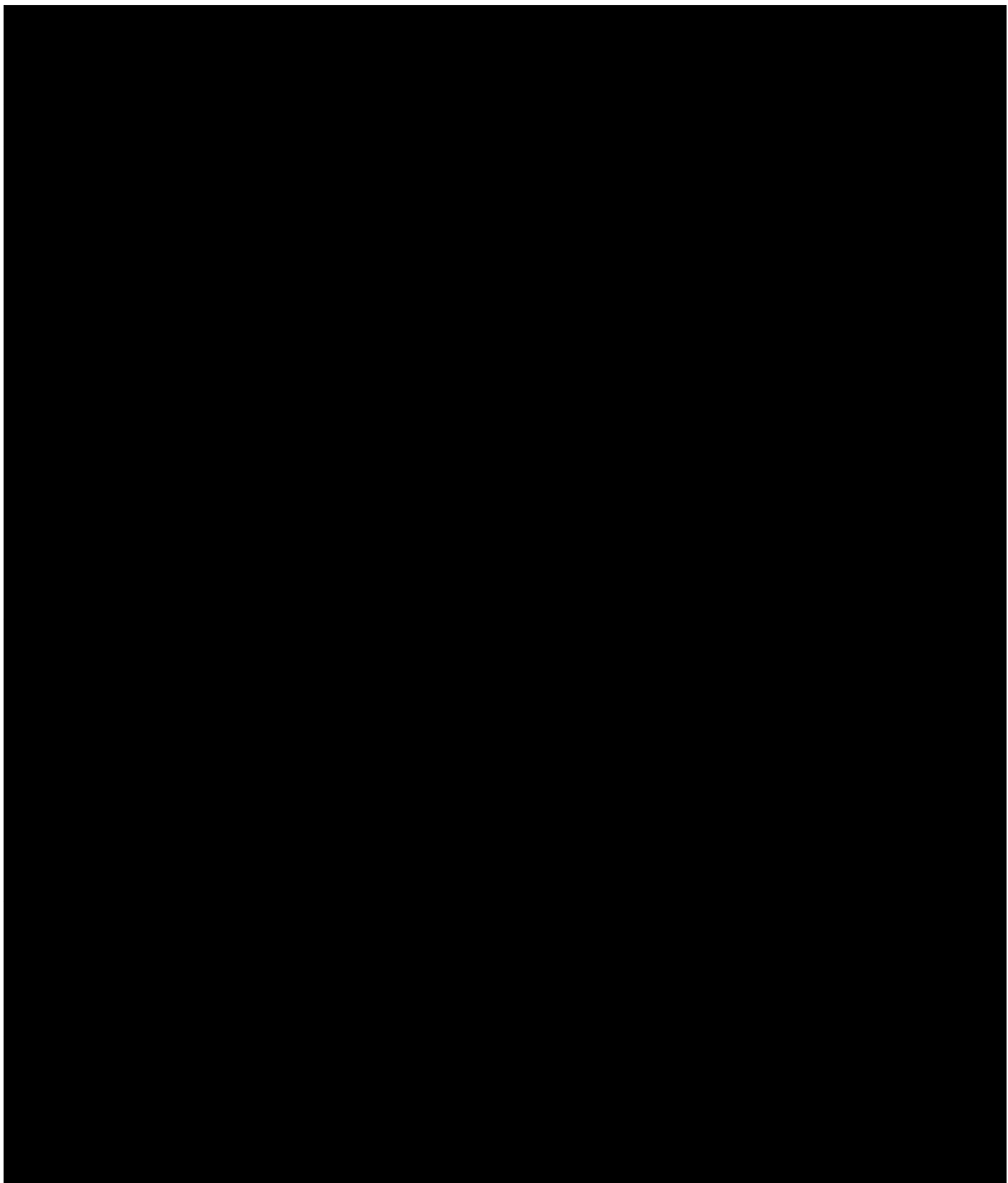






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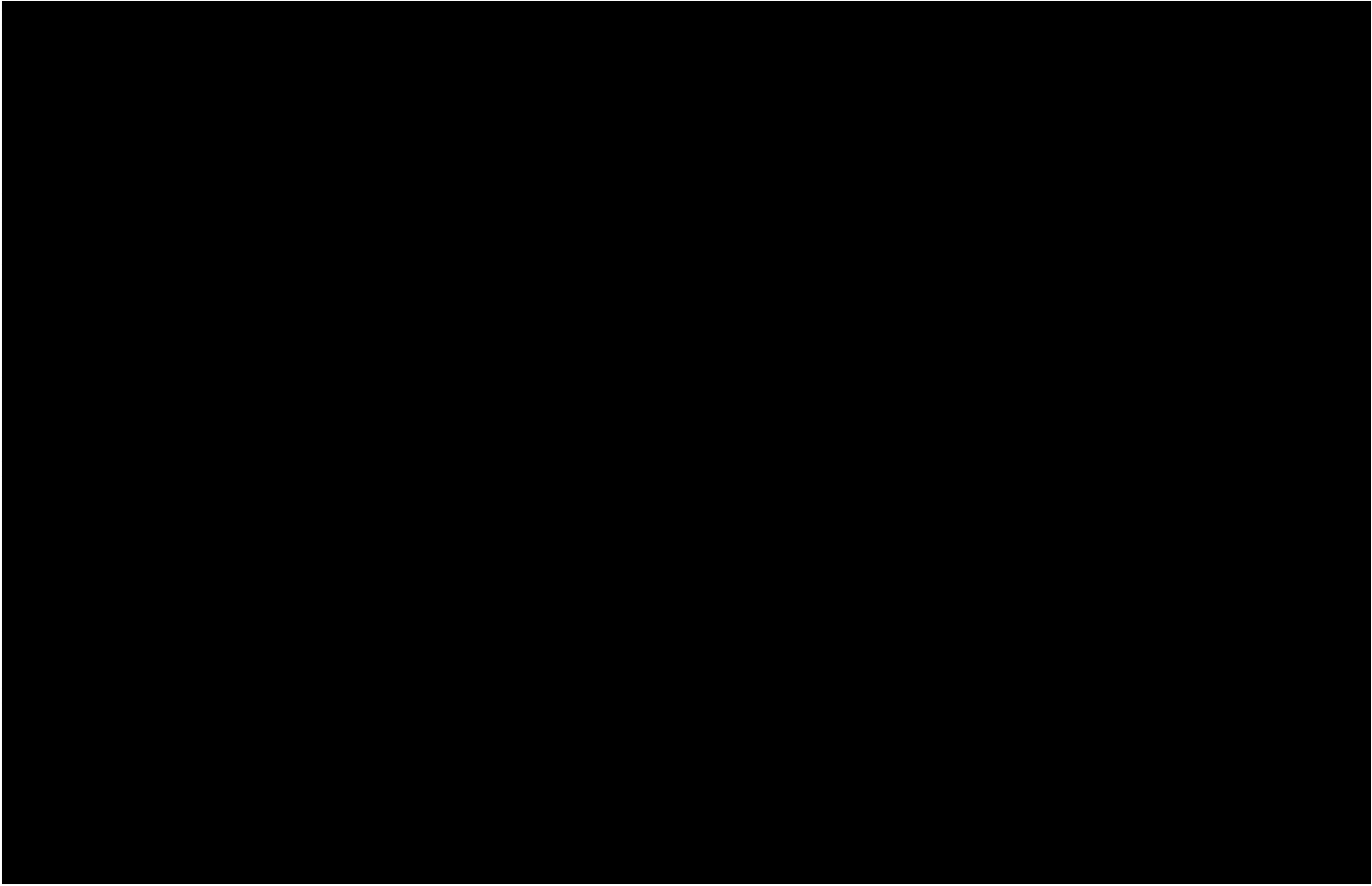
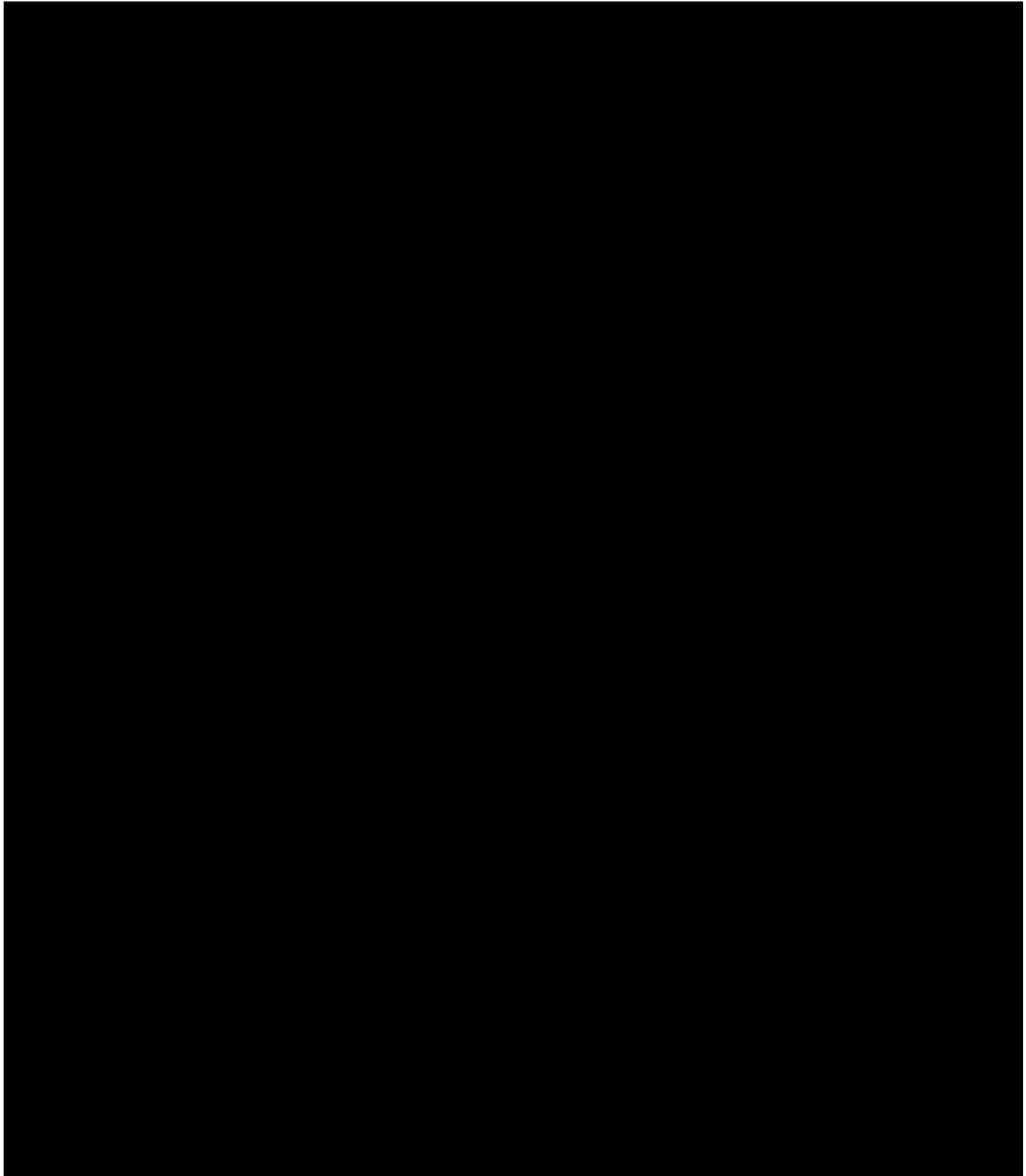


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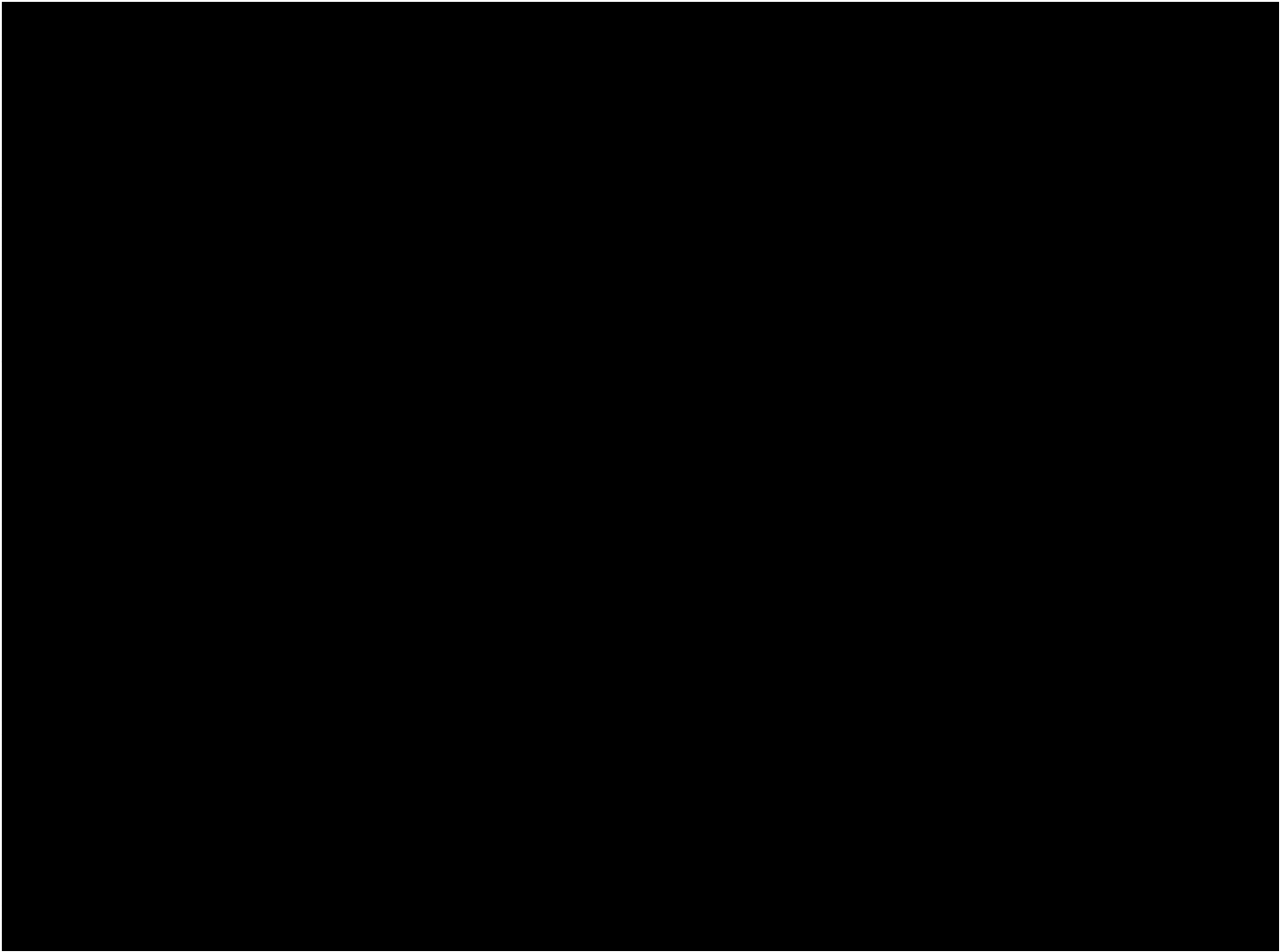


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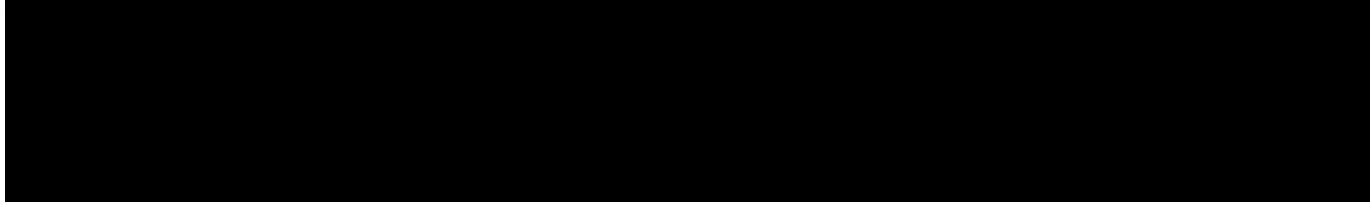


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**12.9 Existence of relationship (as a spouse or significant other) or kinship to the second degree related to managers of the company, entities controlled by the Company, and controlling shareholders**

**Justification for not completing the chart:**

Each and every Member of the Board of Directors, Executive Board and Fiscal Board of Vale have declared, individually for all lawful purposes, that he or she is not related (as spouse, or significant other) or has any other kindred relationship to the second degree to (i) other managers of Vale; (ii) managers of companies controlled directly or indirectly by Vale; (iii) Vale's direct or indirect controlling shareholders; and (iv) the members of management of Vale's direct or indirect controlled entities.

In addition, all members of the Board of Directors, the Executive Board and of the Fiscal Board of companies controlled directly or indirectly by Vale have declared individually for all lawful purposes that they have no conjugal or stable union or kinship to the second degree with entities controlled directly or indirectly by Vale.

**12.10 Subordination, rendering of services or control relationships the between directors/officers, entities controlled by the Company, controlling shareholders, and others**

**Justification for not completing the chart:**

All members of the Board of Directors, the Executive Board, and the Fiscal Board have declared individually for all legal purposes that there have been no relationships for rendering services or for control, maintained over the past three (3) fiscal years between them and (i) a company controlled directly or indirectly by Vale; (ii) the controllers, direct or indirect, of Vale; or (iii) relevant suppliers, clients, debtors, or creditors of Vale, its controlled companies or its controllers.

**12.11 Agreements, including insurance policies for the payment or reimbursement of expenses incurred by directors/officers**

Vale maintains a global coverage liability insurance policy for Directors and Administrators with a group of insurers lead by Zurich Insurance, Plc, through payment of a premium of US\$ 1,474,029.00, in effect between March 1, 2013 and February 28, 2014, and with total indemnity limit corresponding to US\$ 200 million. This insurance covers members of the Board of Directors, Executive Board, Fiscal Board, and any other body mentioned in the Bylaws, as well as certain employees at the management and strategic levels, in both the Company and its subsidiaries (collectively referred to as the Insured). The policy covers financial losses resulting from claims against the Insured for acts or omissions in the exercise of their functions of employment. The policy, in addition to contemplating the repair of damages caused to third parties, Vale, and its controlled companies brought by government agencies, also covers agreements previously authorized by the insurer for the purpose of bringing to close judicial or administrative suits. In addition, the policy provides coverage for payment of defense costs of the Insured, if and when incurred. In addition to those coverage mentioned above, the insurance provides additional guarantees for liability cases that may affect spouses, heirs, successors, legal representatives, and persons designated by Vale to act as managers of external entities.





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**12.12 Other relevant information**

**Information on the publication of the notice to shareholders (item 12.3)**

Regarding item 12.3, Vale hereby notes that the publication of the notice to shareholders about availability of financial statements in 2014, 2013, 2012 and 2011, was not done, under the terms in § 5, in article 133 in the Law of Corporations, considering such documents were published up to one (1) month before the date of the respective general shareholders meeting.

**Information about quorum and installation of shareholders meetings**

Below we present information regarding installation of our shareholders meetings in the last three fiscal years:

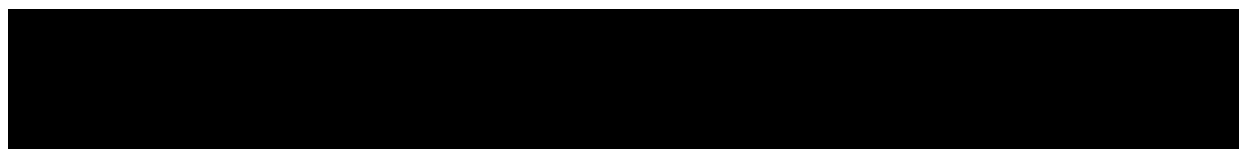
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**Election of member of the Fiscal Board on April 17, 2014**

Mr. Aníbal Moreira dos Santos was elected as member of the Fiscal Board of the Company, and formalization of the vesting of this member is still pending and will occur under terms provided for in Law 6.404, dated December 15, 1976, as amended. Find below, the main information regarding items 12.6, 12.8, 12.9 and 12.10 for said member:

Name	Age	Management body	Date of election	Term
CPF				Elected by
Other positions held at the company	Occupation	Elected position	Date of entry	comptroller
Aníbal Moreira dos Santos	75	Fiscal Board	4/17/2014	Aníbal Moreira dos Santos
011.504.567-87	Accounting Technician	43 Fiscal Board (permanent) Elected by Comptroller	vesting is pending	011.504.567-87
N/A				

Permanent Member of Fiscal Board of Vale (since 2005), where he served also as Deputy Member (April – July 2005). Main professional experience in last five years include: (i) Comptroller Manager of Caemi Mineração and Metalurgia S.A. ( Caemi ) (1981 to 2003), mining company incorporated by Vale in 2006; (ii) Director of different privately-held companies controlled by Caemi abroad; (iii) Deputy Member of the Board of Directors (1998 to 2003) of Minerações Brasileiras Reunidas S.A. MBR, privately-held mining company and Empreendimentos Brasileiros de Mineração S.A. EBM, privately-held holding; and (iv) Permanent Member of Fiscal Board of Log-In Logística Intermodal S.A., since Apr 2009, open capital company engaged in intermodal transportation. Technical course in Accounting by Escola Técnica de Comércio of Fundação Getúlio Vargas completed in Apr 1962. Mr. Aníbal Moreira dos Santos represented for all legal purposes that in the last five (5) years, he was not subject to any criminal condemnation, any administrative condemnation by the Comissão de Valores Mobiliários, or any condemnation on final decision, in the judicial or administrative spheres, causing suspension or disqualification for the engagement in any professional or commercial activity.

Mr. Aníbal Moreira dos Santos represents individually and for all legal purposes that he is not related (as spouse, or significant other) or has any other kindred relationship to the second degree to (i) other managers of Vale; (ii) managers of companies controlled directly or indirectly by Vale; (iii) Vale’s direct or indirect controlling shareholders; and (iv) the members of management of Vale’s direct or indirect controlled entities.

In addition, Mr. Aníbal Moreira dos Santos has declared individually for all lawful purposes that there are no service provision or control relations in the last three (3) fiscal years, between him and (i) company directly or indirectly controlled by Vale; (ii) Vale's direct or indirect controllers; or (iii) vendors, clients, debtors, or creditors relevant for Vale, its controlled or controlling companies.

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**Vale's Corporate Governance Practices and the Brazilian Institute of Corporate Governance – IBGC**

According to the Brazilian Institute of Corporate Governance ( IBGC ), corporate governance is the system by which companies are directed and monitored, including the relationships among shareholders, board of directors, directors, independent auditors, and fiscal board. Basic principles guiding this practice are: (i) transparency; (ii) equity; (iii) accountability; and (iv) corporate responsibility.

The principle of transparency means that the management should engage the desire to inform, not only the company's financial performance, but also other factors (although intangible) that guide corporate actions. Equity means just and egalitarian treatment of all minority groups, collaborators, users, suppliers, or creditors. Accountability, in turn, is characterized by the accountability related to acts of agents of corporate governance appointed, with full responsibility held by those engaged in the acts. Lastly, corporate responsibility represents a broader view of corporate strategy, including considerations of social and environmental nature in the definition of businesses and operations.

From corporate governance practices recommended by the IBGC in its Code of Best Practices of Corporate Governance, the Company adopts, including, the following:

- non-accumulation of the positions of chairman of the Board of Directors and President in the same person;
  
- clear nature of the By-Laws regarding the following: (i) competences of the Board of Directors and the executive Board; and (ii) system for voting, appointment, and removal and term of members of the Board of Directors and Executive Board; and
  
- transparency in the disclosure of management annual reports.
  
- policy to disclose information that governs the disclosure of information representing relevant acts or facts about Vale and its subsidiaries and, that elects our Executive Director of Investor Relations as the main responsible for the disclosure of information;
  
- policy to negotiate securities issued by Vale, approved by our Board of Directors; and
  
- code of ethics and conduct, to be complied with by all employees, executive directors, and members of the Board of Directors and its Committees, members of the Fiscal Board, contracted parties and anyone acting on behalf of Vale).

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On November 28, 2013, Vale approved its Global Anti-Corruption Policy, applicable to all the employees (temporary or not) and managers of the Company and its controlled companies, as well as all its vendors acting in the name of Vale and its controlled companies or in its interest. This policy sets forth the prohibition regarding some behaviors, as well as procedures to prevent and accuse corruption acts.

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**13 - Management Remuneration**

**13.1 Description of the compensation policy, including Non-Statutory Boards**

**a. Objectives of the compensation policy or practices**

According to the provisions of Article 10, Paragraph 3 of the Bylaws of the Company, the overall and annual compensation for Company Managers is set at the Annual General Meeting, and takes into account their responsibilities, the time they dedicate to their functions, competence and professional reputation, and the market value of their services.

Vale is one of the largest diversified mining companies in the world, and one of the largest private companies in Latin America. It has operations in over 20 countries having shareholders on every continent, and employing around 83,000 employees and 45,000 subcontracted workers active in its operations, as of December 31, 2013.

Clearly, Vale is a global company of great complexity and magnitude, whose administration requires an in-depth understanding of its area of business and market, combined with total commitment.

As global company, Vale is aware that retaining and engaging the right professionals in strategic roles, especially Executive Directors, is critical for its success today, in the mid and long terms. As such, the market is always the benchmark, from the perspective of global competition, thus Vale takes into consideration, to determine managers' compensation, compensation policies used by top mining companies, as well as from large global corporations from other industries.

Thus, the goal of Vale's compensation policy is to attract, motivate, and retain its talents, and considers market practices at locations where the company operates, its alignment with company strategy in the short and long terms, its shareholder value, and business sustainability.

**b. Composition of compensation packages**

**(i) Description of the elements of the compensation packages and the objectives of each of them.**

**Executive Board**

**Fixed Compensation**

*Pro-labore.* The compensation for the members of the Executive Board is made up exclusively of the payment of a fixed monthly fee; this fixed compensation is designed to remunerate the services of each board member, within their scope

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of responsibility as members of Vale's Executive Board. The overall annual compensation for the Managers, including the members of the Executive Board, the Statutory Board, the Fiscal Council and the advisory committees is set at the annual general meeting and distributed by the Executive Board.

*Direct and indirect benefits.* The members of the Executive Board do not have the right to direct or indirect benefits.

*Participation on Committees.* The members of the Executive Board do not have the right to remuneration for participation on committees.

**Variable Remuneration**

The members of the Executive Board do not have the right to variable remuneration, including bonuses, profit sharing, participation in meetings, and commissions.

**Post-employment Benefits**

The members of the Executive Board do not have the right to post-employment benefits.

**Benefits Resulting from the Termination of Holding a Position**

The members of the Executive Board do not have the right to benefits resulting from the termination of holding a position.

**Remuneration Based on Shares**

The members of the Executive Board do not have the right to remuneration based on shares.

Fiscal Board



**Fixed Compensation**

*Pro-labore.* The compensation for the members of the Fiscal Board is made up of a fixed monthly fee (honorarium), excluding benefits, representation monies, and profit shares. Members of the Fiscal Board are also entitled to refund for their costs with travelling and accommodation expenses incurred while performing their duties. Deputies are compensated when they undertake the function when a seat is vacant, or when the member of the board in question is absent or unable to exercise the function. The aim of the fixed compensation is to remunerate the services of each board member, within their scope of responsibility as members of the Company's Fiscal Board. The fees for Fiscal Board members are determined in line with the average compensation to the Executive Directors.

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*Direct and Indirect Benefits.* Members of the Fiscal Board do not have the right to direct or indirect benefits.

*Participation on Committees.* The members of the Fiscal Board do not have the right to remuneration for participation on committees.

**Variable Remuneration**

The members of the Fiscal Board do not have the right to variable remuneration, including bonuses, profit sharing, participation in meetings, and commissions.

**Post-employment Benefits**

The members of the Fiscal Board do not have the right to post-employment benefits.

**Benefits Resulting from the Termination of Holding a Position**

The members of the Fiscal Board do not have the right to benefits resulting from the termination of holding a position.

**Remuneration Based on Shares**

The members of the Fiscal Board do not have the right to remuneration based on shares.

Advisory Committees

**Fixed Compensation**

*Pro-labore.* The compensation for the members of the Executive Board Advisory Committees (Strategy Committee, Finance Committee, Executive Development Committee, Financial Control Committee, and Governance and Sustainability Committee) considers exclusively the

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payment of a fixed monthly fee (fees), except for committee members who are Vale Managers, who will not be eligible for compensation for sitting on the committees, as set forth in Paragraph 2 of Article 15 of Vale's Bylaws. The aim of the compensation is to remunerate each member's services within the scope of their responsibility as members of the Company's respective Advisory Committees. The compensation for Advisory Committee members is defined by the Board of Directors.

*Direct and Indirect Benefits.* Advisory committee members are not entitled to direct or indirect benefits.

### **Variable Remuneration**

The members of the Advisory Committees do not have the right to bonuses, profit sharing, or commissions.

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**Post-employment Benefits**

The members of the Advisory Committees do not have the right to post-employment benefits.

**Benefits Resulting from the Termination of Holding a Position**

The members of the Advisory Committees do not have the right to benefits resulting from the termination of holding a position.

**Remuneration Based on Shares**

The members of the Advisory Committees do not have the right to remuneration based on shares.

Executive Board (Statutory Directors)

**Fixed Compensation**

*Pro-labore.* Members of the Executive Board are entitled to receive a fixed monthly compensation aiming to remunerate the services rendered within the scope of the individual responsibility attributed to each of the Executive Boards in managing the Company.

*Direct and indirect benefits.* Members of the Executive Board are entitled to a package of benefits that is compatible with market practices, including private healthcare, hospital and dental care, a designated car with driver, private pension scheme and life insurance. Not only are the benefits in line with market practices, but they are also aimed at assuring the executives and their dependents peace of mind when it comes to fundamental issues such as healthcare.

*Participation on Committees.* The members of the Executive Board do not have the right to remuneration for participation on committees.

**Variable compensation**

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*Bonus.* Members of the Executive Board are entitled to variable annual payment (bonus) based on the Company's earnings and defined by indicators and objectives, measurable targets derived from the strategic plan, and the annual budget approved by the Executive Board. While assuring market competitiveness, the main aim of the bonus is to acknowledge an executive's contribution to the Company's performance and earnings.

*Others.* The members of the Executive Board do not have the right to variable compensation, profit sharing, participation in meetings, or commissions.

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**Post-employment benefits**

Members of the Executive Board may have medical healthcare, hospital and dental care paid by the Company up to 24 (twenty-four) months after their termination, in order to allow them to look for alternatives outside the corporative plan.

**Benefits Resulting from the Termination of Holding a Position**

The members of the Executive Board do not have the right to benefits resulting from the termination of holding a position, but note that, as described in item 13.12 of this Reference Form, the contract entered into by said directors contains a compensation clause for the event of contract breaching or failure to renew them.

**Compensation based on shares**

*Long-term Incentives – ILP (Portuguese acronym)*

Long-term variable payment based on the Company's expected future performance aimed at retaining and engaging the Executives and aligning them with the future vision of the Company. The program was introduced in 2007 and the first payment was made in January 2010. For further details, see item 13.4 (a) below.

*Matching*

Like the ILP, *Matching* is a variable, long-term form of compensation based on the Company's expected future performance. The plan's purpose is to encourage an owner's feeling, while also helping to retain executives and reinforce a sustained performance culture.

Items 13.1 (a) (ii), (c) and (d) below, describe in detail the methodology for calculation used to determine the value of the compensation of the Executive Board, pursuant to what is above stated.

It should be mentioned that the changes in compensation based on shares were approved and will apply starting in the 2014 cycle. For further details, see item 13.4 below.

Non-Statutory Board

The non-statutory directors are Company employees with a labor contract. These directors hold global

Corporate or business unit functions or regional or local corporate functions, or are responsible for operational systems or areas in the Company's different businesses.

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**Fixed Compensation**

*Fixed Salary.* Non-Statutory Directors are entitled to a fixed monthly compensation based on the Company's organizational chart, and aligned to market practices. The aim of the fixed salary is, as set out in the labor contract signed by each executive, to remunerate the services rendered within the scope of responsibility attributed to them in undertaking their respective duties within the company.

*Direct and indirect benefits.* Non-Statutory Directors are entitled to benefits compatible with market practices, including medical healthcare, hospital and dental care, private pension scheme (Valia) and life insurance. Not only are the benefits in line with market practices, but they are also aimed at assuring the executives and their dependents peace of mind when it comes to fundamental issues such as healthcare. For more information about the Complementary Benefits plan (Valia), see item 13.10 of the Reference Form.

*Participation on Committees.* The non-statutory directors do not have the right to remuneration for participation on committees.

**Variable compensation**

*Profit Sharing.* Variable annual payment (PR) based on the Company's earnings and defined by indicators and objective, measurable targets derived from the strategic plan, and the annual budget approved by the Executive Board. While assuring market competitiveness, the main aim of the profit sharing is to acknowledge an executive's contribution to the Company's performance and earnings. Item 13.1 (d) below, describes in detail the methodology for calculation used to determine the value of the compensation of the Non-Executive Board, pursuant to what is stated below.

*Other.* Non-Statutory Board members are not entitled to bonus, participation in meetings, or commissions.

**Post-employment benefits**

Non-Statutory Directors are not entitled to post-employment benefits.

**Benefits Resulting from the Termination of Holding a Position**

Non-Statutory Directors receive customized service of orientation for outplacement to be performed by the specialist company appointed by Vale.





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**Compensation based on shares**

*Long-Term Incentive - ILP*

Long-term variable payment based on the Company expected future performance and aimed at retaining and engaging the Executives and aligning them with the future vision of the Company. The program was introduced in 2007 and the first payment was made in January 2010. For further details, see item 13.4 (a) below.

*Matching*

Like the ILP, *Matching* is a variable, long-term form of compensation based on the Company's expected future performance. The plan's purpose is to encourage a feeling of ownership, while also helping to retain executives and reinforce a sustained performance culture.

It is important to highlight that the approved changes in compensation based on shares will apply starting in 2014. For further details see item 13.4 below.

Non-Statutory Committees

The Company also has two non-statutory committees: the Risk Committee and the Communication Committee. All the seats on the non-statutory committees are held by the Company's statutory and non-statutory directors, who do not receive any extra compensation for this function.

**(ii) Proportion of each element to make up the total compensation package**

The approximate proportions of each element in the total compensation for 2013 were as shown in the table below:

Compensation Composition	Executive Board	Fiscal Board	Statutory Board	Non-Statutory Board	Statutory Committees (1)
<b>Fixed Monthly Compensation</b>					
<i>Wage or Pro-Labore</i>	100.00%	100.00%	39.73%	36.00%	100.00%

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<i>Direct or Indirect Benefits</i>			18.78%	10.00%	
<i>Advisory Committees</i>					
<i>Others</i>					
<b>Variable Compensation</b>					
<i>Bonus</i>			36.46%		
<i>Profit Sharing</i>				41.00%	
<i>Participation in Meetings</i>					
<i>Commissions</i>					
<i>Others</i>					
<b>Benefits Post Labor</b>					
<b>Resignation</b>					
<b>Compensation Based on Shares</b>					
<i>Long-term incentive</i>			1.07%	7.00%	
<i>Matching</i>			3.96%	9.00%	
<b>TOTAL</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

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(1) *The Company also counts on two non-statutory committees, the Risk Committee and the Disclosure Committee. All the positions in the non-statutory committees are occupied by Company's statutory and non-statutory directors, who do not receive additional compensation for this work.*

**(iii) Methodology for the calculation and readjustment of each compensation element**

The global annual compensation to managers, including members of the Board of Directors, the Statutory Board, the Fiscal Board and Advisory Committees, is determined at the annual general meeting and distributed by the Board of Directors.

**Executive Board**

The fixed compensation of the members of the Executive Board is represented by the fixed monthly payments (fees), while the fixed monthly compensation for deputies is 50% of the value received by the regular members of the Executive Board. Values are annually defined according to the market practice, checked through referential researches made by specialized companies, where the effect of the compensation for similar companies can be observed. There is no variable compensation for the members of the Executive Board.

**Fiscal Board**

The fixed compensation of the members of the Fiscal Board is represented by the fixed monthly payments (fees), having as reference the value of 10% of the compensation that, in average, is granted to the Statutory Directors, not computing the benefits, representation monies, and profits participation. The members of the Fiscal Board also have the right to a refund for transport and lodging expenses that are necessary in performing their duties, and deputies will be paid only when they act as members due to vacancy, impediment or absence of the respective member. There is no variable compensation for the members of the Fiscal Board.

**Advisory Committees**

For members of the Advisory Committees of the Executive Board - Strategic Committee, Financial Committee, Executive Performance Committee, Controlling Committee, and Governance and Sustainability Committee compensation considers solely the payment of a fixed monthly compensation (fees), except for committee members that are Vale managers, who will not receive compensation for sitting in the committees, as per the terms of §2 of Article 15 of Vale's Bylaws. The members of the Advisory committee also do not receive any other type of fixed compensation. Contractual compensation has the

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purpose of compensating the services of each advisor within the scope of the responsibility attributed to each of the Company's Advisory Committees. Compensation for the member of the Advisory Committee is defined by the Board of Directors.

**Executive (Statutory) Directors**

The fixed compensation of the Statutory Directors is represented by the fixed monthly payment, defined according to the market practice, checked through referential researches made by specialized companies where the effect of the compensation for similar companies can be observed, and annually readjusted by the National Broad Consumer Price Index (IPCA), and assessed by the Executive Development Committee and approved by the Board of Directors.

Direct and indirect benefits (medical healthcare, hospital care, dental care, car with driver, private pension plan, and life insurance) to which they have the right, are also defined according to the market practice checked through referential research made by specialized companies where the effect of the concession of benefits for the participating companies of similar size can be observed and assessed by the Executive Development Committee and approved by the Board of Directors. The bonus of the Statutory Directors is calculated based on the earnings of the Company, and may vary between 0% and 150% of the annual fixed payment; this depends on the goals set forth for each fiscal year.

The methodology for the calculation of the compensation based on shares of the Statutory Directors (ILP) considering the 75% percentage of the bonus for Executive Directors, and 125% of the bonus for the President, out of the value effectively paid as such, and transformed, as reference, into a number of common shares issued by Vale (virtual shares), considered the average quotation of the common shares issued by the Company during the last 60 trading days of the last fiscal. If the executive member remains in the Company, by the end of three years the number of virtual shares is transformed into a monetary value by the average quotation of the common shares issued by the Company of the last 60 trading days of the third year. The program also takes into consideration the performance of the Company regarding a group of similar companies (peer group). If Vale is first in this ranking, the value settled will be increased in 50%. This is a decreasing percentage, so in the 5th position the value remains unchanged, and as of the 15th position, there is no payment.

The methodology for the calculation of the Matching determines that the executive member may allocate 30% or 50% of his short-term variable payment (bonus) to the purchase of class A preferred shares issued by Vale, through a pre-defined financial institution, under market conditions and without any benefit offered by Vale, on the days set forth in the plan. The bonus percentage that can be allocated by each executive member for participating in the Matching Plan is defined as of the valuation of his performance and

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potential. This shall be granted to those executive members who acquire shares as per the terms and conditions set forth in the Matching Plan and who three years after the acquisition, still remain linked to Vale and have kept the ownership of all the shares acquired. At the end of the three years period, the administrators shall end the cycle, and shall give a calculation of effective compliance of the conditions set forth in the manual of the above referred plan. If the terms of the plan have been adhered to, the Company shall pay the executive member a liquid value, as a prize, equal to the amount he bought in shares of the program. After the payment of the incentive, the executive members can freely negotiate the preferred shares issued by Vale to be acquired in order to become eligible for the Matching Plan and in agreement with the law in force.

Additionally, changes to said program were approved and will be applied starting in the 2014 cycle. For further details, see item 13.4 (a) below.

**Non-statutory Board**

The fixed compensation for the Non-statutory Directors is represented by a fixed monthly payment, with a labor contract. Every year, the Department of Human Resources of Vale hire specialized companies to perform analysis of compensations; the analysis is made pursuant to the complexity of each position compared in the market. The comparison is made with national and multinational companies of similar sizes of several sectors, and the equalization of the comparison is through a scoring system. This system of valuation is known as Hay System, a system of points created by The Hay Group that evaluates the weight of the positions based on their complexity, allowing their global ranking. This system is the most used worldwide for this purpose. There is no predetermined index or periodicity for the readjustment of the base compensation and when there are readjustments, they are based on the market evolution and the merit of the executive member.

Direct and indirect benefits (medical healthcare, hospital care, dental care, private pension plan, and life insurance) to which they have right, are defined according to the market practice checked through referential research made by specialized companies where the effect of the concession of benefits for similar companies in the same segment can be observed. The component of the bonus of the Non-statutory Directors is calculated based on the earnings of the Company, and it ranges from zero, in the event the performance of the Company does not reach the goals set forth for each fiscal year, to 18 fixed monthly compensations for directors responsible for global corporate duties or business units, and 15 fixed monthly compensations for directors responsible for regional or local corporate duties. The readjustment of the variable compensation is aligned with the readjustment of wages, because the base of the variable compensation is a multiplier of the base wage.

The methodology for the calculation of the compensation based on shares of the Non-statutory Directors (ILP) takes into account 75% out of the bonus

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granted for directors responsible for global corporate duties or business units and the 50% out of the bonus granted for directors responsible for regional or local corporate duties of the value actually paid for this purpose. This amount is transformed, as reference, into a number of common shares issued by Vale (virtual shares), and considered the average quotation of the common shares issued by the Company during the last 60 trading days of the last fiscal year. If the executive member remains in the Company, by the end of three years the number of virtual shares is transformed into a monetary value by the average quotation of the common shares issued by the Company of the last 60 trading days of the third year. The program also takes into consideration the performance of the Company regarding a group of similar companies (peer group). If Vale is first in this ranking, the value settled will be increased in 50%. This is a decreasing percentage, so in the 5th position the value remains unchanged, and as of the 15th position, there is no payment.

The calculation of the Matching determines that the executive member may part of his short-term variable payment (bonus) to the purchase of class A preferred shares issued by Vale, through a pre-defined financial institution, under market conditions and without any benefit offered by Vale, on the days set forth in the plan. The bonus percentage that can be allocated by each executive member for participating in the Matching Plan is defined as of the valuation of his performance and potential. This shall be granted to those executive members who acquire shares as per the terms and conditions set forth in the Matching Plan and who three years after the acquisition, still remain linked to Vale and have kept the ownership of all the shares acquired. At the end of the three years period, the administrators shall end the cycle, and shall give a calculation of effective compliance of the conditions set forth in the manual of the above referred plan. If the terms of the plan have been adhered to, the Company shall pay the executive member a liquid value, as a prize, equal to the amount he bought in shares of the program. After the payment of the incentive, the executive members can freely negotiate the preferred shares issued by Vale to be acquired in order to become eligible for the Matching Plan and in agreement with the law in force.

Additionally, changes to said program were approved and will be instated starting in the 2014 cycle. For further details, see item 13.4 (a) below.

**(iv) Reasons that justify the composition of the compensation**

The composition of the compensation aims to be competitive in the market, helping to attract, retain and motivate the best officers, encouraging a feeling of ownership and the commitment to long-term results and short-term performance. For directors, Vale adopts a composition model of the compensation that concentrates a significant payment of the total compensation in the variable components (both of short- and long-term), being a part of the policy of risk and earnings sharing with the main executive members of the Company.

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**c. Main performance indicators that are taken into consideration when determining each element of the compensation package**

All the definitions concerning the compensation are sustained by market research, supported by one or more specialized consultancies. Regarding Statutory Directors, these definitions are also assessed by the Executive Development Committee and approved by the Executive Board.

The main performance indicators taken into account while defining compensation are those related to Company's performance, for instance EBITDA, as well as general productivity, safety, and environmental indicators.

The performance indicators taken into account while determining compensation due to long-term incentive plans namely, the ILP and Matching are: for both, the value of the Company's shares in the market, and for ILP, its position in relation to a group of 20 companies of similar size (peer group).

**d. How the compensation package is structured to reflect the development of the performance indicators**

The definition of the executives' performance targets, which are used to structure the payment of their profit share (bonus), derive from the strategic plan and the budget, both approved by the Executive Board, which are reviewed each year to sustain the targets and expected results for the Company.

Further, the long-term incentive payments (ILP) and Matching) are pegged to some of the Company's performance indicators: for both the price of its shares on the market, and, for ILP, its position relative to its peer group (a group of 20 companies of a similar size (peer group)).

**e. How the compensation policy is aligned with the Company's short-, medium- and long-term interests**

As stressed, the compensation is based on the Company's performance and financial sustainability in the short, medium, and long term, in line with its strategic plan, while also assuring shareholder value. As such, the long-term incentives are structured with three-year elimination period, to align them with the evolution of the Company's performance indicators.

**f. Existence of compensation supported by subsidiaries, and direct or indirect affiliates or holding companies**



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One of the Company's executive directors is also the President and Chief Executive Officer of Vale Canada Limited, a Vale subsidiary. As such, part of this executive's fixed compensation and benefits, corresponding to 60% and 40% of total compensation paid by Vale Canada Limited. For more information, see item 13.15 in this Reference Form.

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**g. Existence of any compensation or benefits connected to the occurrence of a given corporate event, such as the sale of the Company's controlling interest**

There is no compensation or benefit for the members of the Fiscal or Executive Boards, Statutory or Non-Statutory Committees, or the Executive or Non-Executive Board that is in any way connected to the occurrence of any corporate event.

**13.2 Total Compensation of the executive board, statutory board, and fiscal board**

**Total Compensation Estimates for the Current Fiscal Year to be Ended on December 31, 2014 Annual Amounts**

	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Fiscal Board</b>	<b>Total</b>
Number of members	22.00	8.00	4.00	34.00
<b>Annual fixed compensation (in R\$)</b>				
Salaries or pro-labore fees	4,350,000.00	22,425,688.00	1,121,284.00	27,896,972.00
Direct and indirect benefits	0.00	9,460,511.00	0.00	9,460,511.00
Compensation for participation in Committees	0.00	0.00	0.00	0.00
Other	870,000.00	5,037,656.00	192,000.00	6,099,656.00
Description of other fixed compensation	Vale's Portion of Social Security [INSS]	Vale's Portion of Social Security [INSS]	Vale's Portion of Social Security [INSS]	
<b>Variable Compensation (in R\$)</b>				
Bonus	0.00	27,614,256.00	0.00	27,614,256.00
Profit share	0.00	0.00	0.00	0.00
Compensation for participation in meetings	0.00	0.00	0.00	0.00
Commissions	0.00	0.00	0.00	0.00
Other	0.00	10,390,103.00	0.00	10,390,103.00
Description of other variable compensation		Vale's Portion of Social Security [INSS]		
<b>Post-employment benefits</b>	0.00	0.00	0.00	0.00
<b>Employment termination benefits</b>	0.00	20,000,000.00	0.00	20,000,000.00
<b>Stock-based compensation</b>	0.00	2,165,200.00	0.00	2,165,200.00
<b>Observation</b>	The field Number of members includes the regular members and deputy members of the Executive Board.	1. The field Stock-based compensation includes the amounts paid in the ILP program and the estimated amounts of the Matching.		
		2. The amount presented in the		

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field Bonus refers to the value paid in the 2014 fiscal year relative to the goals of the 2013 fiscal year.

Total amount of compensation	5,220,000.00	97,093,414.00	1,313,284.00	103,626,698.00]
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**Total Compensation for the Fiscal Year Ended on December 31, 2013 Annual Amounts**

Number of members	22.00	8.00	4.00	30.00
Salaries or pro-labore fees	4,188,228.00	20,064,877.00	994,465.00	25,247,570.00
Compensation for participation in Committees	0.00	0.00	0.00	0.00
Description of other fixed compensation	Vale s Portion of Social Security [INSS]	Vale s Portion of Social Security [INSS]	Vale s Portion of Social Security [INSS]	
Bonus	0.00	18,413,629.00	0.00	18,413,629.00
Compensation for participation in meetings	0.00	0.00	0.00	0.00
Other	0.00	4,757,767.95	0.00	4,757,767.95
<b>Post-employment benefits</b>	0.00	0.00	0.00	0.00
<b>Stock-based compensation</b>	0.00	2,537,872.00	0.00	2,537,872.00



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**Total Compensation for the Fiscal Year Ended on December 31, 2013 Annual Amounts**

	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Fiscal Board</b>	<b>Total</b>
		the 2012 fiscal year. Two of the Executive Directors of Vale started in their positions during fiscal year 2012 and, as such, the amount paid as bonus exclusively for these directors was calculated <i>pro rata temporis</i> , according to rules in the plan. Regarding other directors who have stayed in their positions throughout the fiscal year 2012, the bonus was paid.		
Total amount of compensation	4,694,768.00	60,154,736.77	1,193,358.00	66,042,862.77

**Total Compensation for the Fiscal Year Ended on December 31, 2012 Annual Amounts**

	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Fiscal Board</b>	<b>Total</b>
Number of members	21.00	8.00	4.00	33.00
<b>Annual fixed compensation (in R\$)</b>				
Salaries or pro-labore fees	3,865,666.34	18,316,233.77	963,240.38	23,145,140.49
Direct and indirect benefits	0.00	7,859,706.16	0.00	7,859,706.16
Compensation for participation in Committees	0.00	0.00	0.00	0.00
Other	966,416.58	4,077,327.49	240,810.10	5,284,554.17
Description of other fixed compensation	Vale's Portion of Social Security [INSS]	Vale's Portion of Social Security [INSS]	Vale's Portion of Social Security [INSS]	
<b>Variable Compensation (in R\$)</b>				
Bonus	0.00	21,069,159.02	0.00	21,069,159.02
Profit share	0.00	0.00	0.00	0.00
Compensation for participation in meetings	0.00	0.00	0.00	0.00
Commissions	0.00	0.00	0.00	0.00
Other	0.00	12,144,530.35	0.00	12,144,530.35
Description of other variable compensation		Vale's Portion of Social Security [INSS]		
<b>Post-employment benefits</b>	0.00	0.00	0.00	0.00
<b>Employment termination benefits</b>	0.00	28,267,686.84	0.00	28,267,686.84
<b>Stock-based compensation</b>	0.00	13,043,485.97	0.00	13,043,485.97



Table of Contents**Total Compensation for the Fiscal Year Ended on December 31, 2012 Annual Amounts**

	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Fiscal Board</b>	<b>Total</b>
<b>Observation</b>	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly. in accordance with Circular Letter CVM/SEP 001/13.	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly. in accordance with Circular Letter CVM/SEP 001/13.	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly. in accordance with Circular Letter CVM/SEP 001/13.	
	2 - The field Number of members includes the regular members (1) and deputy members (10) of the Executive Board.	2 The amounts shown in the field Stock-based compensation includes the amounts paid in ILP and Matching programs.	2 - The field Number of members includes the regular members (4) of the Fiscal Board.	
		3. The amount presented in the field Bonus refers to the effective value paid in the 2012 fiscal year relative to the goals of the 2011 fiscal year.		
Total amount of compensation	4,832,082.92	104,778,129.60	1,204,050.48	110,814,263.00

**Total Compensation for the Fiscal Year Ended on December 31, 2011 Annual Amounts**

	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Fiscal Board</b>	<b>Total</b>
Number of members	21.00	7.75	4.00	32.75
<b>Annual fixed compensation (in R\$)</b>				
Salaries or pro-labore fees	3,929,627.00	16,970,226.00	921,600.00	21,821,453.00
Direct and indirect benefits	0.00	6,153,124.00	0.00	6,153,124.00
Compensation for participation in Committees	0.00	0.00	0.00	0.00
Other	785,925.00	3,698,510.00	184,320.00	4,668,755.00
Description of other fixed compensation	Vale s Portion of Social Security	Vale s Portion of Social Security	Vale s Portion of Social Security	



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	[INSS]	[INSS]	[INSS]	
<b>Variable Compensation (in R\$)</b>				
Bonus	0.00	24,703,613.00	0.00	24,703,613.00
Profit share	0.00	0.00	0.00	0.00
Compensation for participation in meetings	0.00	0.00	0.00	0.00
Commissions	0.00	0.00	0.00	0.00
Other	0.00	28,224,426.00	0.00	28,224,426.00
Description of other variable compensation		Vale s Portion of Social Security		
	0.00	[INSS]	0.00	
<b>Post-employment benefits</b>	0.00	0.00	0.00	0.00
<b>Employment termination benefits</b>	0.00	98,741,007.00,	0.00	98,741,007.00
<b>Stock-based compensation</b>	0.00	17,677,508.00	0.00	17,677,508.00
<b>Observation</b>	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly, in accordance with Circular Letter CVM/SEP 001/13.	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly, in accordance with Circular Letter CVM/SEP 001/13.	The field Number of members includes the regular members (4) of the Fiscal Board.	
	2 - The field Number of members includes the regular members	2 The payment regarding Employment termination benefits		

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	<p>(11) and deputy members (10) of the Executive Board.</p>	<p>was made to ex-Executive Directors who left the Company during the fiscal year ending on December 31, 2011.</p> <p>3 The amounts shown in the field Stock-based compensation includes the amounts paid in the ILP and Matching programs described in items 13.1 and 13.4.</p> <p>4. The amount presented in the field Bonus refers to the effective value paid in the 2013 fiscal year relative to the goals of the 2012 fiscal year.</p>		
Total amount of compensation	4,715,552.00	196,168,414.00	1,105,920.00	201,989,886.00

Table of Contents**13.3 - Variable Compensation of the executive board, statutory board, and fiscal board****Estimates for the fiscal year to be ended on December 31, 2014**

	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Fiscal Board</b>	<b>Total</b>
Number of members		8.00		8.00
<b>Bonus (in R\$)</b>				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan		33,638,521.50(1)		33,638,521.50
Amount estimated by the compensation plan if pre-established goals are met		22,425,681.00(2)		22,425,681.00
<b>Profit share (in R\$)</b>				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan				
Amount estimated by the compensation plan if pre-established goals are met				

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Notes:

(1) Amount corresponding to 150% of the Fixed Annual Compensation of the Statutory Board.

(2) Amount corresponding to 100% of the Fixed Annual Compensation of the Statutory Board.

**Fiscal year ended on December 31, 2013**

	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Fiscal Board</b>	<b>Total</b>
<b>Number of members (1)</b>		8.00		8.00
<b>Bonus (in R\$)</b>				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan		30,097,316.00(2)		30,097,316.00
Amount estimated by the compensation plan if pre-established goals are met		20,064,877.00(3)		20,064,877.00
Amount effectively paid at the close of the fiscal year		18,413,629.00(4)		18,413,629.00
<b>Profit share (in R\$)</b>				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan				
Amount estimated by the compensation plan if pre-established goals are met				
Amount effectively paid at the close of the fiscal year				

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Notes:

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- (1) Corresponds to the number of executive officers and board members, as applicable, to whom variable compensation was paid at the close of the fiscal year, in accordance with the provision of Circular Letter CVM/SEP 01/2014.
- (2) Amount represents 150% of Fixed Annual Compensation paid to the Statutory Board.
- (3) Amount represents 100% of Fixed Annual Compensation paid to the Statutory Board.
- (4) The amount presented in the field `Bonus` refers to the effective value paid in the 2013 fiscal year relative to the goals of the 2012 fiscal year.

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	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Fiscal Board</b>	<b>Total</b>
<b>Number of members (1)</b>		8.00		8.00
<b>Bonus (in R\$)</b>				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan		27,474,351.00(2)		27,474,351.00
Amount estimated by the compensation plan if pre-established goals are met		18,316,234.00(3)		18,316,234.00
Amount effectively paid at the close of the fiscal year		21,069,159.02(4)		21,069,159.02
<b>Profit share (in R\$)</b>				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan				
Amount estimated by the compensation plan if pre-established goals are met				
Amount effectively paid at the close of the fiscal year				

## Notes:

- (1) Corresponds to the number of executive officers and board members, as applicable, to whom variable compensation was paid at the close of the fiscal year, in accordance with the provision of Circular Letter CVM/SEP 01/2013.
- (2) Amount represents 150% of Fixed Annual Compensation paid to the Statutory Board.
- (3) Amount represents 100% of Fixed Annual Compensation paid to the Statutory Board.
- (4) The amount presented in the field Bonus refers to the effective value paid in the 2012 fiscal year relative to the goals of the 2011 fiscal year.

**Fiscal year ended on December 31, 2011**

	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Fiscal Board</b>	<b>Total</b>
<b>Number of members (1)</b>		10.00		10.00
<b>Bonus (in R\$)</b>				
Minimum amount estimated by compensation plan		0		0
Maximum amount estimated by compensation plan		34,464,477.00(2)		34,464,477.00
Amount estimated by the compensation plan if pre-established goals are met		21,675,771.00(3)		21,675,771.00
Amount actually acknowledged in the formal results		24,703,613.00(4)		24,703,613.00
<b>Profit share (in R\$)</b>				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan				
Amount estimated by the compensation plan if pre-established goals are met				
Amount actually acknowledged in the formal results				

## Notes:

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- (1) Corresponds to the number of executive officers and board members, as applicable, to whom variable compensation was paid at the close of the fiscal year, in accordance with the provision of Circular Letter CVM/SEP 01/2013.
- (2) Amount represents 150% of Fixed Annual Compensation paid to the Statutory Board.
- (3) - Amount represents 100% of Fixed Annual Compensation paid to the Statutory Board.
- (4) The amount presented in the field `Bonus` refers to the effective value paid in the 2011 fiscal year relative to the goals of the 2010 fiscal year.

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**13.4 With respect to the stock-based compensation plan for the Executive Board and the Statutory Board, which was in force in the last fiscal year and which is estimated for the current fiscal year:**

The Company has two stock-based compensation plans for the Statutory Board, which do not extend to the Executive Board. Neither plan grants permission for Company stock purchasing option, but only the payment of a bonus as per the market quotation for the Company stock.

**a. General Terms and Conditions**

**Long-Term Program (ILP)**

This is a long-term incentive program introduced in 2007 based on the Company's expected performance in the future. The amount to be paid in the ILP is defined based on the percentage of the short-term (bonus) variable tranche, of 125% for the President and 75% for the other members of the board, from the amount to be effectively paid for this purpose. This amount is transformed, as a reference, in a number of common shares issued by Vale (virtual shares), during the last 60 trading days of the last fiscal. If the executive member remains in the Company, by the end of three years the number of virtual shares is transformed into a monetary value [by the average quotation of the common shares issued by the Company of the last 60 trading days of the third year. The program also takes into consideration the performance of the Company regarding a group of 20 similar companies (peer group). If Vale is first in this ranking, the value settled will be increased in 50%. This is a decreasing percentage, so in the 5th position the value remains unchanged, and as of the 15th position, there is no payment. The terms and conditions described above are applicable to beneficiaries from the 2012 and 2013 cycle within the scope of said program.

Starting in 2014, the ILP will be replaced by the Virtual Shares Program (PAV, Portuguese acronym), whose basis of calculation will be the basis of compensation, and the parameters of this calculation will be pre-established for each hierarchical level in each of the countries where the Company operates. The program will last for 4 years and not for 3 years, as described in the above paragraph. The program allows early gradual payments, starting in 2014. Payment can be made in accrued tranches of 20% (at the end of the second year), 30% (at the end of the third year) and 50% (at the end of the fourth year), for as long as performance conditions for each year are reached. The payment metrics will continue to be the Total Shareholder Return (TSR) relative to a peer group, taking into consideration the businesses and region in which Vale operates and the influence of the Brazilian market's fluctuation.

**Matching**

This is a variable, long-term form of compensation created in 2008, based on the Company's expected performance in the future. The main purpose of this program is to encourage an ownership feeling as well as to leverage executive retention and reinforce a sustainable performance culture. To become eligible for the Matching program, an executive may allocate 30.0% to 50.0% of

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his/her bonus (short-term variable compensation) for the purchase of Class A preferred stock issued by Vale, through the mediation of a pre-defined financial institution, under market conditions, on the days set in the scheme, without any benefit being offered by Vale. The percentage bonus that may be allocated per executive for participating in the Matching scheme is based on an assessment of their performance and potential.

Those executives who acquire shares under the terms and conditions of the Matching scheme on the stipulated dates and who are still in the employment of Vale three years after they were acquired and who have kept the ownership of all the shares purchased will be eligible for a cash prize. At the end of the three-year period, when the cycle reaches its conclusion, the Managers check that the terms of the scheme, as set forth in the manual, have been followed. Assuming that the terms of the plan have been observed, the Company will pay the executive a net value, as a prize, based in the market value of the Company's shares held by the executive during the program. After the incentive has been paid, the executives are free to sell the preferred stock issued by Vale that they had acquired in the beginning of the Matching scheme, in compliance with existing legislation. The terms and conditions above described are applicable to the beneficiaries of the 2012 and 2013 cycles in the scope of said program.

Starting in 2014, the basis of calculation for the Matching program will be the remuneration basis, and the parameters for this calculation will be pre-established for each of the hierarchical levels for each of the countries in which the Company operates. Additionally, joining in the program in a voluntary basis for all executives except for the President and Members of the Board, for whom joining and staying in the program is mandatory. Except for the above-mentioned changes, the additional terms and conditions of the program remain unaltered.

**b. Major Plan Objectives**

The major objectives of the compensation programs based on shares aforementioned are retention of the Company's major executives, keep them engaged to the Company and encourage the ownership feeling, so that they become committed to mid and long terms results.

**c. How the plans contribute for the achievement of these objectives**

The compensation plans based on shares aforementioned promote the alignment of the stockholders and the statutory board members interests, as they ensure that there are only gains for the executives as long as there are gains for the Company as well.

**d. Where the plans fit into the Company's compensation policy**

The compensation plans based on shares aforementioned fit into Vale's compensation policy once they constantly foster a competitiveness level that complies with the Company business and the competitive market context. They





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have been designed upon the support provided by specialized consulting services and upon the consideration of domestic and international market trends and moves.

**e. How the plans promote the alignment between management and the Company interests at short, mid and long term**

The design of compensation plans based on shares aforementioned incorporates the Company performance rate factors upon company stocks fluctuated value in three (for ILP and Matching) or four years (for PAV) and, in case of ILP or the replacing PAV starting in the 2014 cycle, Company performance relative to other companies of similar size within the same industry and the same reference period. Thus, the plans align the medium- and long-term interests of both the managers and the Company.

For further information on the changes made to the aforementioned programs that will apply in 2014, see item (a) above).

**f. Maximum number of comprised stocks**

Not applicable. No stock purchasing option is granted within the scope of either the ILP or the Matching Program. The number of virtual ordinary stocks granted as reference within the scope of the ILP varies with the short-term variable remuneration of each executive and with the average market price shares issued by Vale at a set number of trading days before the approval. In the Matching Program, the executive has the option to allocate 30 or 50% of their bonus to purchase Company's class A preferred stocks and become eligible to participate in the program, after their potential and performance assessment. For more information about the changes made to the programs that will apply in the 2014, see item (a) above.

**g. Maximum number of options to be granted**

Not applicable. No stock purchasing option is granted within the scope of the compensation plans based on shares aforementioned.

**h. Stock purchasing conditions**

Not applicable. The ILP and Matching programs do not grant stock purchasing options to executives. Once assessed, the amount owed to executives within the scope of the Plans is paid in cash.

**i. Criteria for stock pricing or option reference period**

Not applicable. As no stock purchasing option is granted within the scope of either Plan, it makes no sense setting criteria for stock pricing or option reference period.

In the ILP, the amount owed to executives is calculated as per the valuation of a given number of Vale`s virtual ordinary stocks within the period of the past

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three years, and is based upon the stock average initial quotation of the last 60 stock market floor sessions prior to the incentive grant, and the stock average final quotation at the closing of the last 60 stock market floor sessions of the third year. This amount is then multiplied by a factor of Company performance relative to a peer group of 20 global companies of a similar size. Based on the Company's position relative to this group of global companies, the ILP may be increase in 50% or it may drop to zero. For further information on the changes made to said plans applying in 2014, see item (a) above.

However, for the Matching Plan, the net amount to be paid to executives as incentives is calculated upon the number of Company class A preferred stocks purchased by the executive to become eligible for the Plan.

**j. Criteria for establishing the reference period**

Not applicable. As mentioned above, compensation plans based on shares aforementioned do not grant stock purchasing option. Therefore, there is no reference period. However, both Programs pre-establish that the payment of incentives be made after a grace period of three years (for ILP and Matching) or four years (for PAV).

**k. Liquidation conditions**

Both compensation plans based on shares aforementioned pre-establish that premiums be paid in cash.

**l. Restrictions to stock transfer**

With respect to the Matching Plan, the executive will lose his/her right to the premium if he/she transfers, within the three-year period, any Company preferred stock that is plan-bonded.

Not applicable to the ILP or PAV, though, once this Plan's participants are not required to retain their stockholding position in the company nor are they granted any stocks within the scope of the Plan.

**m. Criteria and events that, upon occurrence, shall result in the plan suspension, change or extinction**

With respect to the Matching Plan, any transference of Vale's issued preferred stocks that are plan-bonded before the three-year grace period or the executive's severance generate the extinction of any rights whatsoever that they would otherwise be entitled to within the scope of the Plan.



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However, with respect to the ILP or the PAV, the executive's severance generates the extinction of any rights whatsoever that they would otherwise be entitled to within the scope of the Plan.

**n. Effects generated by the Company's Board and Committee Manager's departure upon his/her rights as provided by the stock-based compensation plan**

As the Plan works as a retention mechanism, if the Manager resigns, he/she shall lose all his/her rights to the long-term plans. In case the Manager's contract is rescinded or not renewed by the Company, the participant shall receive the values he had purchased prior to the contract rescission or termination date.

**13.5 Participation in stock, quotas, or other convertible securities held by executive officers and fiscal council members by board or committee**

**a. The number of stocks or quotas issued by the Company, held directly or indirectly, in Brazil or overseas, and other stock-convertible securities by its board of directors members, statutory directors, or fiscal council members, grouped by board or committee, on the closing day of the last accounting reference period:**

**Shares issued by VALE S.A.**

<b>Stockholders 12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	2,516	57,974
Executive Officers	29,300(*)	771,777(*)
Fiscal Council	0	0
<b>Total</b>	<b>31,816</b>	<b>829,751</b>

[\*] Including 20,000 VALE shares and 111,414 VALE.P shares owned as *American Depositary Receipts* (ADRs), at the New York Stock Exchange.

**b. The number of stocks or quotas and other securities convertible into shares or quotas issued by the direct or indirect controllers of the Company, held directly or indirectly, either in Brazil or overseas, by its board of directors members, statutory directors, or fiscal council members, grouped by board or committee, on the closing day of the last accounting reference period:**

**Shares issued by VALEPAR S.A.**

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**Stockholders**

<b>12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

Table of Contents**Shares issued by BNDES Participações S.A.****Stockholders**

<b>12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

**Shares Issued by LITEL PARTICIPAÇÕES S.A.****Stockholders**

<b>12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

**Shares issued by BRADESPAR S.A.****Stockholders**

<b>12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	300	16,770
Executive Officers	0	0
Fiscal Council	0	0
<b>Total</b>	<b>300</b>	<b>16,770</b>

**Shares issued by MITSUI & CO., LTD****Stockholders**

<b>12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	36,352	0
Executive Officers	0	0
Fiscal Council	0	0
<b>Total</b>	<b>36,352</b>	<b>0</b>

**Shares issued by ELETRON S.A****Stockholders**



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<b>12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

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<b>Stockholders</b>		<b>Common</b>	<b>Preferred</b>
<b>12/31/2013</b>			
Board of Directors		0	0
Executive Officers		0	0
Fiscal Council		0	0
<b>Total</b>		<b>0</b>	<b>0</b>

**Shares issued by BELAPART S.A**

<b>Stockholders</b>		<b>Common</b>	<b>Preferred</b>
<b>12/31/2013</b>			
Board of Directors		0	0
Executive Officers		0	0
Fiscal Council		0	0
<b>Total</b>		<b>0</b>	<b>0</b>

**Shares issued by VALETRON S.A.**

<b>Stockholders</b>		<b>Common</b>	<b>Preferred</b>
<b>12/31/2013</b>			
Board of Directors		0	0
Executive Officers		0	0
Fiscal Council		0	0
<b>Total</b>		<b>0</b>	<b>0</b>

c. The number of stocks or quotas and other securities convertible into shares or quotas issued by the Company's subsidiaries, held directly or indirectly, either in Brazil or overseas, by its board of directors members, statutory directors, or fiscal council members, grouped by board or committee, on the closing day of the last accounting reference period:

**Shares issued by FERROVIA CENTRO ATLÂNTICA S.A.**

<b>Stockholders</b>		<b>Common</b>	<b>Preferred</b>
<b>12/31/2013</b>			
Board of Directors		0	0
Executive Officers		0	0
Fiscal Council		0	0
<b>Total</b>		<b>0</b>	<b>0</b>



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<b>Stockholders</b> <b>12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

**Shares issued by LOG-IN LOGÍSTICA INTERMODAL S/A.**

<b>Stockholders</b> <b>12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

**Shares issued by MRS LOGÍSTICA S.A.**

<b>Stockholders</b> <b>12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	0	0
Executive Officers	1	0
Fiscal Council	0	0
<b>Total</b>	<b>1</b>	<b>0</b>

**Shares issued by PT VALE INDONESIA TBK**

<b>Stockholders</b> <b>12/31/2013</b>	<b>Common</b>	<b>Preferred</b>
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

Table of Contents**13.6 With respect to stock-based compensation, as acknowledged in the past 3 fiscal years and as estimated for the current fiscal year, for executive board and the statutory board.**

The Matching Plan was established in 2008 and provides for a three-year grace period, so, the incentive within the scope of this Plan shall only be due by the Company three years after its application. Therefore, the value shown below for this program represents an estimation pursuant to the projection of increase of the shares price up to the date foreseen for the payment. The first benefit of the program was paid in 2011.

The information below that refers to the Long Term Incentive (ILP), described in detail in 13.4 (a), does not include or grant stock purchasing option, because it is based on the quotations of the Company's common shares in order to define the value in kind to be paid as incentive to the executive directors; that is why most of the information appearing in the following tables does not apply.

**Estimates for the fiscal year to be ended on December 31, 2014**

	Executive Board	Statutory Board	Total
<b>Number of members(1)</b>		8.00	8.00
<b>With respect to each option grant</b>			
Grant date		January and March 2011(2)	
Number of granted options			
Deadline for options to become redeemable		January and March 2014(3)	
Deadline for redeeming options			
Grace period for stock transfer			
<b>Pondered average price</b> within accounting reference period for each of the following option groups:			
Outstanding at the beginning of the accounting reference period			
Not redeemed throughout accounting reference period			
Redeemed within accounting reference period			
Expired within accounting reference period			
<b>Fair option price on grant date</b>		2,165,200.00(4)	2,165,200.00(4)
<b>Potential dilution in case all granted options were redeemed</b>			

## Notes:

- (1) Corresponds to the number of directors and board members, as applicable, assigned with the share based compensation acknowledged in the results of the fiscal year, as set forth in Resolution CVM/SEP 01/2014.
- (2) In January 2011 the ILP cycle began and in March 2011 the Matching cycle began.
- (3) In January 2014 the ILP cycle ended and in March 2014 the Matching cycle will end.
- (4) Values regarding the ILP (cycle ended in January, 2014) and values estimated in the Matching Program, in March 2014

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Estimates for the fiscal year to be ended on December 31, 2013

	Executive Board	Statutory Board	Total
<b>Number of members(1)</b>		8.00	8.00
<b>With respect to each option grant</b>			
Grant date		January and March 2010(2)	

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	Executive Board	Statutory Board	Total
Number of granted options			
Deadline for options to become redeemable		January and March 2013(3)	
Deadline for redeeming options			
Grace period for stock transfer			
<b>Pondered average price</b> within accounting reference period for each of the following option groups:			
Outstanding at the beginning of the accounting reference period			
Not redeemed throughout accounting reference period			
Redeemed within accounting reference period			
Expired within accounting reference period			
<b>Fair option price on grant date</b>		2,537,872.00 (4)	2,537,872.00(4)
<b>Potential dilution in case all granted options were redeemed</b>			

Notes:

- (1) Corresponds to the number of directors and board members, as applicable, assigned with the share based compensation acknowledged in the results of the fiscal year, as set forth in Resolution CVM/SEP 01/2013.
- (2) In January 2010 the ILP cycle began and in March 2010 the Matching cycle began.
- (3) In January 2013 the ILP cycle ended and in March 2013 the Matching cycle will end.
- (4) Values regarding the ILP (cycle ended in January, 2013) and values estimated in the Matching Program, in March 2013

**Fiscal year ended on December 31, 2012**

	Executive Board	Statutory Board	Total
<b>Number of members (1)</b>		9.00	9.00
<b>With respect to each option grant</b>			
Grant date		January and April 2009 (2)	
Number of granted options			
Deadline for options to become redeemable		January and April 2012 (3)	
Deadline for redeeming options			
Grace period for stock transfer			
<b>Pondered average price</b> within accounting reference period for each of the following option groups:			
Outstanding at the beginning of the accounting reference period			
Not redeemed throughout accounting reference period			
Redeemed within accounting reference period			
Expired within accounting reference period			
<b>Fair option price on grant date</b>		R\$ 13,024,236.00 (4)	R\$ 13,024,236.00 (4)
<b>Potential dilution in case all granted options were redeemed</b>			

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### Notes:

- (1) Corresponds to the number of directors and board members, as applicable, assigned with the share based compensation acknowledged in the results of the fiscal year, as set forth in Resolution CVM/SEP 01/2013..
- (2) In January 2009 the ILP cycle began and in March 2009 the Matching cycle began.
- (3) In January 2012 the ILP cycle ended and in March 2012 the Matching cycle will end.
- (4) Values regarding the PAV ILP (cycle ended in January, 2012) and values estimated in the Matching Program, in March 2013



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	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Total</b>
<b>Number of members (1) [sic]</b>		7.75	7.75
<b>With respect to each option grant</b>			
Grant date		January and April 2008 (1)	
Number of granted options			
Deadline for options to become redeemable		January and April 2011(2)	
Deadline for redeeming options			
Grace period for stock transfer			
<b>Pondered average price</b> within accounting reference period for each of the following option groups:			
Outstanding at the beginning of the accounting reference period			
Not redeemed throughout accounting reference period			
Redeemed within accounting reference period			
Expired within accounting reference period			
<b>Fair option price on grant date</b>		R\$ 17,677,508.00 (3)	R\$ 17,677,508.00 (3)
<b>Potential dilution in case all granted options were redeemed</b>			

## Notes:

- (1) Corresponds to the number of directors and board members, as applicable, assigned with the share based compensation acknowledged in the results of the fiscal year, as set forth in Resolution CVM/SEP 01/2013..
- (2) In January 2008 the ILP cycle began and in April 2008 the Matching cycle began.
- (3) In January 2011 the ILP cycle ended and in April 2011 the Matching cycle will end.
- (4) Values regarding the ILP and Matching Program (cycle ended in 2011)

**13.7 With respect to outstanding options for the Executive Board and the Statutory Board at the closing of the last accounting reference period**

Not applicable, since the remuneration plans based on Company shares do not include the granting of options for the purchase of shares, since they are based on the quote for Company shares to define the cash amount to be paid as incentive to executive directors. For more information, see items 13.4 and 13.6 in this Reference Form

**13.8 With respect to redeemed and delivered options for the Executive Board and the Statutory Board**

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Not applicable, since the remuneration plans based on Company shares do not include the granting of options for the purchase of shares, since they are based on the quote for Company shares to define the cash amount to be paid as incentive to executive directors. For more information, see items 13.4 and 13.6 in this Reference Form.

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**13.9 Relevant information aiming at a broader understanding of data presented under items 13.6 through 13.8 above - pricing method used for stock and option values**

Not applicable. See items 13.4 and 13.6 in this Reference Form.

**13.10 Information on Private Pension Funds granted to members of the executive board and the statutory board**

Pursuant to contract provisions, the Company pays for both the employer's and the employee's share, up to 9% of the fixed compensation, to Valia - Fundação Vale do Rio Doce de Seguridade Social (Vale do Rio Doce Social Security Foundation), or to any other private pension fund chosen by the Statutory Board member.

At Valia, the minimum required age for a retirement plan is 45 years of age, after having contributed for the given plan for a minimum grace period of five years.

**Valia - Vale do Rio Doce Social Security Foundation**

	Executive Board	Statutory Board	Total
Number of members (1)		7 members	
Plan name	Benefits Plan	Vale Mais (Plano de Benefício Vale Mais)	
Number of managers that are eligible for retirement benefits		5, of which (i) 3 with Normal Retirement Income; and (ii) 2 with Early Retirement Income; and (iii) 1 with Differed Benefit Income through Retirement.(4)	
Eligibility for early retirement		- be at least 45 years old;  - have at least 5 years of uninterrupted participation in VALIA, counting from the most recent date of entering the Vale Mais Plan (except for participants migrating	

from the Defined  
Benefit Plan (Benefits  
Plan now closed) to  
the Vale Mais Plan;

- have rescinded the  
labor contract with the  
employer or have lost  
the

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	position of administrator.
Updated value of accumulated contributions to social security and pension plan up until the closing of the last accounting reference period, minus amounts paid by managers	R\$ 9,513,354.20 (2)
Total accumulated amount of contributions paid throughout the last accounting reference period, minus amounts paid by managers	R\$ 1,577,269.83(3)

Executive Board	Statutory Board	Total
Eligibility for advanced redemption and conditions	<p>- The active participant who, on the date of rescission of his/her labor contract with the employer or on the date of loss of the position of administrator, does not opt to become an independent contributor or associate, nor opts for the institution of portability and is not enjoying benefits from the Vale Mais Plan, is eligible to receive the redemption.</p> <p>The amount of the redemption shall be equal to: 100% of the participant's account + 1% of the employer's account per month of normal, ordinary contribution made by the participant to the Vale Mais Plan up to a maximum of 80% of this account.</p>	

(1) Corresponds to the number of executive officers and board members, as applicable, enrolled in the benefits plan, in accordance with Circular Letter CVM/SEP 01/2014.

(2) Amount corresponding to the sum of the Accounts of the Employer belonging to the participants on 12/31/2013.

(3) Amount corresponding to the sum of the ordinary contributions made by the employer in the name of each one of the participants during the year of 2013.

(4) One of the managers is entitled to two (2) benefits, one (1) Normal Retirement Income and one (1) Differed Benefit Income through Retirement.

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	<b>Executive Board</b>	<b>Statutory Board</b>	<b>Total</b>
Number of members (1)		1 member	
Plan name		Benefits Plan Valiaprev	
Number of managers that are eligible for retirement benefits			

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	Executive Board	Statutory Board	Total
Eligibility for early retirement		<ul style="list-style-type: none"> <li>- be at least 45 years old;</li> <li>- have at least 5 years of uninterrupted participation in VALIA, counting from the most recent date of entering the Valiaprev Plan;</li> <li>- have rescinded the labor contract with the employer or have lost the position of administrator.</li> </ul>	
Updated value of accumulated contributions to social security and pension plan up until the closing of the last accounting reference period, minus amounts paid by managers			R\$ 328,947.54(2)
Total accumulated amount of contributions paid throughout the last accounting reference period, minus amounts paid by managers			R\$ 171,885.82(3)
Eligibility for advanced redemption and conditions		<ul style="list-style-type: none"> <li>- The active participant who, on the date of rescission of his/her labor contract with the employer or on the date of loss of the position of administrator, does not opt to become an independent contributor or associate, nor opts for the institution of portability and is not enjoying benefits from the Valiaprev Plan, is eligible to receive the redemption.</li> </ul> <p>The amount of the redemption shall be equal to: 100% of the participant's account + 1% of the employer's account per month of normal, ordinary contribution made by the participant to the</p>	

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Valiaprev Plan up to a  
maximum of 80% of  
this account.

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(1) Corresponds to the number of executive officers and board members, as applicable, enrolled in the benefits plan, in accordance with Circular Letter CVM/SEP 01/2014.

(2) Amount corresponding to the sum of the Accounts of the Employer belonging to the participants on 12/31/2013.

(3) Amount corresponding to the sum of the ordinary contributions made by the employer in the name of each one of the participants during the year of 2013.



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**13.11 Maximum, minimum, and average individual compensation of the executive board, statutory board, and the fiscal board**

**Justification for not filling out this table.**

Information not disclosed due to legal decision, which is that, the award granted in the case of ordinary proceedings No. 0002888-21.2010.4.02.5101 processed by the 5th Circuit Court of Federal Justice of Rio de Janeiro made final the injunction previously granted to IBEF/RJ, (to which Vale and the company executives are linked), determining that CVM shall be absent from (a) deploying the requirement in sub-item 13.11 in exhibit 24 to CVM Instruction 480, (b) applying any penalty related to failure to comply with this requirement by IBEF associates. CVM appealed the decision. On February 6, 2014, the case was sent to the Federal Regional Court of the 2nd Region to be tried as an appeal with no suspension effects. Thus, at least until CVM's appeal is tried, the decision continues to have the aforementioned effects.

**13.12 Compensation or indemnity mechanisms applicable to managers in the occurrence of dismissal or retirement**

The contracts signed by members of the Statutory Board have a provision for indemnity for contract rescission or non-renewal once such events are generated by the Company. In the latter case, the following amounts and conditions are provided for: (i) a compensatory indemnity for each and every amount due, corresponding to six (6) times the amount of the last fixed monthly compensation paid to Executive Directors and twelve (12) times for the President, as well as the payment of the indemnity corresponding to 2 (two) fixed annual salaries, to be paid in eight quarterly equal payments conditioned to a non-compete agreement to be in force for the following 24 months.

No other type of contract agreement is drawn with members of the Executive Board or the Fiscal Board. The same applies to any other types of contract agreements, life insurance policies or any other instruments that might underlie compensation or indemnity mechanisms in case an executive is dismissed or retires.

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**1. Percentage of total compensation held by managers and members of the fiscal board that are somehow connected to controllers.**

<b>Board or Committee</b>	<b>Fiscal year ended on December 31, 2013</b>
Executive Board	74.00%
Statutory Board	0.00%
Fiscal Board	15.00%

<b>Board or Committee</b>	<b>Fiscal year ended on December 31, 2012</b>
Executive Board	74.00%
Statutory Board	0.00%
Fiscal Board	15.00%

<b>Board or Committee</b>	<b>Fiscal year ended on December 31, 2011</b>
Executive Board	74.00%
Statutory Board	0.00%
Fiscal Board	15.00%

**13.14 - Compensation paid to members of the Board of Directors, Statutory Board and members of the fiscal board, grouped by board, received for any purpose other than the function they perform.**

No payments in the last three (3) accounting reference periods of any other type rather than for the function they perform were made to any member of the Executive Board, of the Statutory Board, or the Fiscal Board.

Table of Contents**13.15 Compensation paid to members of the Board of Directors, Statutory Board, or fiscal board acknowledged in the results released by direct or indirect affiliates, subsidiaries or companies under common control****FISCAL YEAR ENDED ON 12/31/2013**

	<b>EXECUTIVE BOARD</b>	<b>STATUTORY BOARD</b>	<b>FISCAL BOARD</b>	<b>TOTAL</b>
<b>DIRECT AND INDIRECT CONTROLLING ENTITIES</b>	0	0	0	0
<b>COMPANIES CONTROLLED BY THE COMPANY</b>	0	R\$ 2,632,135.00 (1) (Fixed annual compensation: R\$1,462,498.00/ Direct and indirect benefits: R\$1,169,637.00)	0	R\$ 2,632,135.00
<b>COMPANIES UNDER COMMON CONTROL</b>	0	0	0	0

**FISCAL YEAR ENDED ON 12/31/2012**

	<b>EXECUTIVE BOARD</b>	<b>STATUTORY BOARD</b>	<b>FISCAL BOARD</b>	<b>TOTAL</b>
<b>DIRECT AND INDIRECT CONTROLLING ENTITIES</b>	0	0	0	0
<b>COMPANIES CONTROLLED BY THE COMPANY</b>	0	R\$ 1,972,657.00 (1) (Fixed annual compensation: R\$1,189,560.00/ Direct and indirect benefits: R\$783,097.00)	0	R\$ 1,972,657.00
<b>COMPANIES UNDER COMMON CONTROL</b>	0	0	0	0

**FISCAL YEAR ENDED ON 12/31/2011**

	<b>EXECUTIVE BOARD</b>	<b>STATUTORY BOARD</b>	<b>FISCAL BOARD</b>	<b>TOTAL</b>
<b>DIRECT AND INDIRECT CONTROLLING ENTITIES</b>	0	0	0	0
<b>COMPANIES CONTROLLED BY THE COMPANY</b>	0	R\$ 1,023,381.00 (1) (Fixed annual compensation: R\$766,330.00/ Direct and indirect benefits: R\$257,051.00)	0	R\$ 1,023,381.00
<b>COMPANIES UNDER COMMON CONTROL</b>	0	0	0	0

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**13.16 Other relevant information**

**Proposal for global compensation**

The proposal for global compensation of the managers for the fiscal year 2014 will be submitted to the General Annual Meeting intended to fix as a global sum the amount of up to R\$ 103,929.098.00 (one hundred and three million nine hundred twenty nine thousand and ninety eight reais, to be distributed by the Executive Board, taking into account the provisions in current law and in the Articles of Incorporation of Vale. It should be emphasized that the amount proposed considers the responsibilities of the administrators, the time devoted to their positions, the competence, the professional reputation, and the value of their services in the market. It is important to note that the proposal for overall compensation shown above considers the remuneration of the members of the Advisory Committees and charges related to that remuneration, an amount that is not shown in item 13.2.

The above amount comprises: (a) up to R\$ 5,471,284.00 (five million four hundred seventy one thousand two hundred eighty four reais) corresponding to the fixed compensation of the members of the Executive Board, and of the members of the Fiscal Board, under the terms of Act No. 6404/76, Art. 163, net of social fees under Vale's responsibility; (b) up to R\$ 72,205,144.00 (seventy two million, two hundred five thousand, one hundred and forty four reais) corresponding to the fixed and variable compensation of the Executive Directors, which takes into account an Executive Board comprised by 8 Executive Directors, net of social fees under Vale's responsibility, and excluding direct and indirect benefits. The individual and fixed compensation is compatible with the values paid to the executive members of similar companies, while the payment of the variable compensation, corresponding to the bonus and the long-term incentive, is linked to the fulfillment of predetermined goals, based on the performance of the Company. Thus, the payment of the variable compensation is equivalent to the partial or total fulfillment of the predetermined goals, and they may also be not owed in the event of not reaching such goals; (c) up to R\$ 25,950,270.00 (twenty-five million, nine hundred fifty thousand and two hundred and seventy reais) corresponding to taxes and charges that have an incidence over the compensation and the responsibility of Vale, and also, benefits of any nature; and (d) up to R\$ 302,400.00 (three hundred and two thousand four hundred reais) corresponding to the remuneration of the members of the Advisory Committees and charges related to that remuneration.

Table of Contents**14.1 Human resources description****the number of company employees (total, by groups based on activity, and by geographic location)**

The table below shows the number of employees of the Company and its controlled companies for the financial years closed December 31, 2011, 2012 and 2013:

**Fiscal years ended on December 31 of 2011, 2012 and 2013**

	2011	2012	2013
<b>Total number of employees</b>	<b>79,646</b>	<b>85,305</b>	<b>83,286</b>
<i>By business area</i>			
Ferrous	27,620	29,806	31,799
Non ferrous	15,252	16,300	15,772
Coal	2,741	2,991	2,707
Logistics	17,657	19,440	19,884
Fertilizers	7,127	7,340	6,772
Others (1)	9,249	9,428	6,352
<i>By location</i>			
Brazil	62,667	67,580	
Canada	6,609	6,766	6,645
Indonesia	3,218	3,172	3,208
New Caledonia	1,123	1,198	1,355
Australia	1,055	1,067	952
The United States	8	0	7
China	135	134	154
Mozambique	1,294	1,918	2,226
Peru	800	766	770
Colombia	457	7	0
Chile	203	527	16
Other (2)	2,077	2,170	1,788

(1) Includes the following: Exploration, Energy, Engineering, Institutes and Foundations, Project Management, Shares Services and Corporate Services.

(2) Includes the following: Angola, Argentina, Austria, Congo, Dubai, England, Guinea, India, Japan, Kazakhstan, Malaysia, Malawi, Mongolia, Oman, Paraguai, The Philipines, Singapore, South Africa, South Korea, Switzerland, Taiwan, Thailand, Whales and Zambia.

**b. Number of outsourced employees (total, total, by groups based on activity and by geographic location)**

The table below shows the number of outsourced employees of the Company and its controlled companies for the financial years closed December 31, 2011, 2012, and 2013 by activity and by geographic location:

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Table of Contents**Fiscal years ended on December 31 of 2011, 2012 and 2013**

	2011	2012	2013
<b>Number of indirect employees</b>	<b>108,084</b>	<b>110,343</b>	<b>129,096</b>
<i>By business area</i>			
Ferrous	10,427	12,707	12,954
Non ferrous	16,611	16,322	14,083
Coal	5,483	4,666	20,113
Logistics	8,614	11,069	13,653
Fertilizers	11,975	12,117	10,583
Others (1)	54,974	53,462	57,710
<i>By location</i>			
Brazil	83,723	85,246	93,335
Canada	5,149	6,959	7,574
Indonesia	5,315	3,780	2,483
New Caledonia	3,131	2,712	1,990
Australia	489	216	258
The United States		0	0
China		0	20
Mozambique	4,121	4,497	11,754
Peru	1,313	987	1,111
Colombia	1,109	0	0
Chile	504	714	56
Other (2)	3,230	5,232	10,515

(1) Includes the following: Exploration, Energy, Engineering, Institutes and Foundations, Project Management, Shares Services and Corporate Services.

(2) Includes the following: Angola, Argentina, Congo, Ethiopia Cook Islands, England, Japan, Kazkhstan, Liberia, Malasia, Mongolia, Oman, Paraguai, The Philipines, Singapore, South Africa, Switzerland, Taiwan, Whales and Zambia.

**c. Employee turnover index**

The index of employee turnover (churning index) for the financial years ending in 2011, 2012, and 2013 was 4.7%, 5.1% and 6.6%, respectively. The churning index is calculated based on data from Vale S.A. and its controlled companies in the following countries: Brazil, Canada, Indonesia, Mozambique, New Caledonia, Australia, China, Argentina, Chile, England, Japan, Oman, Paraguay, Peru, Taiwan and Wales.

**d. Company s exposure to labor liabilities and contingencies**

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On December 31, 2013, the Company was a defendant in 22,703 labor lawsuits, involving the total amount of R\$ 9.1 billion, for which there is a R\$ 1.6 billion in provisions by reason of the risks involved. The labor lawsuits



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brought against the Company deal with matters such as: overtime, hours traveling, additional pay for unhealthy and dangerous working conditions, pay equity, and outsourcing, among others.

For a more detailed description of the labor lawsuits considered relevant to the Company's and its subsidiaries' businesses, see items 4.3 to 4.7 of this Reference Form.

**14.2 Relevant changes Human Resources**

Regarding the number of workers, there was a decrease in the number of Company employees and contractors in Colombia as a result of asset sale in that country. There was also a reduction in the number of employees and contractors as a result of manganese asset sales in France and Norway as well as to the suspension of the Rio Colorado project in Argentina.

**14.3 Description of Company employee remuneration policies**

**a. Salary and variable remuneration policy**

Vale follows the practice already adopted in recent years to carry out comparative research on remuneration and offers all its own employees a salary equal to or higher than the legal minimum practiced in each location. Additionally, in order to strengthen the culture of constant pursuit of results, the remuneration package for each employee includes the payment of variable remuneration, calculated according to the results achieved by the performance of the Company, the department, and the individual or the team.

In Vale's own units, performance assessment is based on annual goals aligned to Company strategy. These evaluations are conducted through an interactive process between employees and their managers, as well as using computer systems, in which the results are logged. The goals also serve as a basis for the Variable Remuneration Program, which awards employees for meeting or exceeding them. Each employee has a panel of annual goals, comprised of three blocks: Company Goals, Department Goals, and Individual/Team Goals. At the beginning of each year the results are evaluated in terms of the goals from the previous year. Each goal totally or partially reached corresponds to a number of points and the sum of the points of the three blocks corresponds to the variable remuneration of the employee.

For the short-term performance cycle (annual), the goals are defined based on the established, principal strategic objectives and annual budget, measuring economical-financial performance, technical and operational performance, and sustainability (management, health and safety, and environment).

Since November 2007, Vale has signed collective agreements valid for two years with all trade unions representing 100% of the total number of Company employees in Brazil. As a result of the agreements, for the period 2011-2013 and 2013/2015, there was a salary increase of 8.6% in

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2011 and there will be another of 8.0% in 2012 and 6.0% in 2013, resulting in a total of 22.6% of readjustment. In Canada, Australia, Indonesia, New Caledonia, Mozambique,

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Peru, England, Oman, Chile, and Argentina, Vale negotiates collective agreements with workers' trade unions, with a duration of typically between one and five years.

Certain employees who are part of the management framework of Vale may participate in long-term incentives, depending on eligibility for each plan, such as: (i) Matching, a program based on shares with the objective of compensating and retaining managers, in which the eligible employee invests in shares of Vale at time 0 and, if he meets certain requirements, the Company grants, after three years, an equivalent number of shares as were purchased at time 0; (ii) Project Bonus, a long-term program directed toward leaders of capital projects based on performance and sustainability of the projects; and (iii) Long-Term Incentive Program, a program that grants virtual shares of Vale to executives, taking into consideration the relative performance of the total return to the shareholder over a three-year period compared with a group of similar companies (peers) during the same period.

The salary and variable remuneration policy for non-statutory directors is described in item 13 of this Reference Form.

**b. Benefits policy**

The benefits are part of the total compensation package that ensures the employees and their legal dependents' protection and security during the term of the contract of employment.

Vale establishes global guidelines for granting benefits to ensure that they are offered consistently in the various countries where Vale is present, bearing in mind the goals of its business in each locality, the human relations philosophy and corporate strategy, in addition to the legal requirements of the country and the given local market conditions.

Benefits considered essential are social security, health plan, life and accident insurance, and income plans for times when the employee leaves the Company.

Benefits such as transport vouchers, education, Employee Assistance Plan, meals at work, and personal accident insurance are offered in accordance with the specificity of each location.

As a result of the process of globalization of the benefits offered, since 2011 Vale provides Global Health Insurance to meet the needs all expatriate employees and their dependents in an equitable way, offering the same coverage anywhere in the world.

**c. Characteristics of compensation plans based in shares for non-administrative employees**

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Compensation plans based in shares described in item 13.4 of this Reference Form include the Company's non-statutory directors, as well as managerial-level employees. The characteristics of these plans are described in item 13.4 of this Reference Form.

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**14.4 - Description of the relationships between the issuer and trade unions**

Vale builds a harmonious relationship with trade unions all around the world. That covers approximately 50 trade unions in Brazil and 12 trade unions in the rest of the world. Today, there are collective agreements in Brazil, Canada, the United Kingdom, Norway, France, Peru, Argentina, Paraguay, Malawi, Mozambique, Australia, New Caledonia, Chile, Indonesia and, in 2013, we entered into our first collective agreement in Oman

In Brazil, on December 31, 2013, all collective agreements were concluded without the occurrence of strikes, this in a year when there were strikes in several production sectors in the country.

Vale continued to favor long-term collective labor agreements respecting the specificities of each country. For example, in Brazil, Vale is one of the few companies that, since 2007, has been signing two-year long collective labor agreements. This also occurs in New Caledonia, where agreements have a term of three years, and Canada, where we have agreements with a five-year term.

Vale has been a pioneer in Brazil in the conclusion of collective agreements of participation in the results with defined goals and a two-year term, and our goal is to keep this practice.

Since 2005, employees elect a representative to the Management Council. Elections are a result of a joint effort between company and unions.

In Brazil, in every semester since 2010, the company meets with the unions to discuss themes such as Health and Safety in the Workplace . Brazilian Central Unions also take part in these meetings.

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## 15.1 / 15.2 Shareholding Position

## Vale S.A.

Shareholders	Nationality	State	CPF/CNPJ	Common Shares		Preferred Shares Class A		Preferred Shares Special Class		Total of Preferred Shares		Quantity
				Quantity	%	Quantity	%	Quantity	%	Quantity	%	
Valepar S.A.	Brazilian	RJ	01.772.413/0001-57	1,716,435,045	52.704337	20,340,000	0.964630	0	0.000000	20,340,000	0.964630	1,736,7
BNDES Participações S.A.	Brazilian	RJ	00.383.281/0001-09	206,378,882	6.337008	67,342,071	3.193717	0	0.000000	67,342,071	3.193717	273,7
Treasury				71,071,482	2.182299	140,857,692	6.680217	0	0.000000	140,857,692	6.680217	211,9
Others				262,839,073	776.356	880,039,843	89.161.435	12	100.000000	880,039,855	89.161.435	142.8
<b>Total</b>				<b>3,256,724,482</b>	<b>100.000000</b>	<b>2,108,579,606</b>	<b>100.000000</b>	<b>12</b>	<b>100.000000</b>	<b>2,108,579,618</b>	<b>100.000000</b>	<b>5,365,3</b>

Table of Contents**Valepar S.A.**

Shareholder	Nationality	State	CPF/CNPJ	Common Shares		Preferred Shares		Total		Member of the shareholders agreement	Controlling shareholder
				Quantity	%	Quantity	%	Quantity	%		
Litel Participações S.A.	Brazilian		00.743.065/0001-27	637,443,857	49.00%	200,864,272	60.29%	838,308,129	51.30%	Yes	Yes
Bradespar S.A.	Brazilian	SP	03.847.461/0001-92	275,965,821	21.21%	6,334,119	1.90%	282,299,940	17.28%	Yes	Yes
Mitsui & Co., Ltd	Japanese		05.466.338/0001-57	237,328,059	18.25%	11,972,033	3.59%	249,300,092	15.26%	Yes	Yes
BNDES Participações S.A.	Brazilian	RJ	00.383.281/0001-09	149,787,385	11.51%	10,793,499	3.24%	160,580,884	9.83%	Yes	Yes
Eletron S.A.	Brazilian		00.514.998/0001-42	380,708	0.03%	19,205	0.01%	399,913	0.02%	Yes	Yes
Others				0	0.000%	103,179,533	30.97%	103,179,533	6.31%		
<b>Total</b>				<b>1,300,905,830</b>	<b>100.000%</b>	<b>333,162,661</b>	<b>100.00%</b>	<b>1,634,068,491</b>	<b>100.000%</b>		

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Shareholder	Nationality	State	CPF/CNPJ	Common Shares Quantity	%	Preferred Shares Quantity	%	Total Quantity	%	Member of the shareholders agreement	Controlling shareholder	Date of Last Change
BB Carteira												
Ativa	Brazilian		01.578.476/0001-77	193,740,121	78.40	28,385,377	86.16%	222,125,498	79.31	No	Yes	12/31/2013
Others				53,388,224	21.60	4,561,171	13.84%	57,949,395	20.69			
Total				247,128,345	100.00	32,946,548	100.00	280,074,893	100.00			

**Bradespar S.A. CNPJ: 03.847.461/0001-92**

Shareholder	Nationality	State	CPF/CNPJ	Common Shares Quantity	%	Preferred Shares Quantity	%	Total Quantity	%	Member of the shareholders agreement	Controlling shareholder	Date of Last Change
NCF Participações S.A.	Brazilian		04.233.319/0001-18	30,388,376	24.80	2,235,627	0.98	32,624,003	9.33	No	Yes	12/31/2013
Cidade de Deus Cia. Cial. de Participações S.A.	Brazilian		61.529.343/0001-32	44,883,224	36.63	300,960	0.13	45,184,184	12.93	No	Yes	12/31/2013
Fundação Bradesco	Brazilian		60.701.521/0001-06	18,179,304	14.84	0	0	18,179,304	5.20	No	Yes	12/31/2013
Others				29,072,145	23.73	224,488,309	98.89	253,560,454	72.54			
Total				122,523,049	100	227,024,896	100	349,547,945	100			

**Cidade de Deus Cia. Cial. de Participações S.A. CNPJ: 61.529.343/0001-32**

Shareholder	Nationality	State	CPF/CNPJ	Common Shares Quantity	%	Preferred Shares Quantity	%	Total Quantity	%	Member of the shareholders agreement	Controlling shareholder	Date of Last Change
Nova Cidade de Deus Participações S.A.	Brazilian	SP	04.866.462/0001-47	3,140,565,330	44.91	0	0	3,140,565,330	44.91	No	Yes	12/31/2013
Fundação Bradesco	Brazilian	SP	60.701.521/0001-06	2,322,047,389	33.20	0	0	2,322,047,389	33.2	No	Yes	12/31/2013
Lina Maria Aguiar	Brazilian	SP	017.080.078-49	595,243,486	8.51	0	0	595,243,486	8.51	No	Yes	12/31/2013
Lia Maria Aguiar	Brazilian	SP	003.692.768-68	490,259,489	7.01	0	0	490,259,489	7.01	No	Yes	12/31/2013
Others				445,635,757	6.37	0	0	445,635,757	6.37			



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Total	6,993,751,451	100.00	0	0	6,993,751,451	100.0
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**Nova Cidade de Deus Participações S.A. CNPJ: 04.866.462/0001-47**

Shareholder	Nationality	State	CPF/CNPJ	Common Shares Quantity	%	Preferred Shares Quantity	%	Total Quantity	%	Member of the shareholders agreement	Controlling shareholder	Date of Last Change
Fundação Bradesco	Brazilian	SP	60.701.521/0001-06	124,433,334	46.30	284,771,938	100	409,205,272	73.93	No	Yes	12/31/2013
BDD Participações S.A.	Brazilian	SP	07.838.611/0001-52	144,311,638	53.70	0	0	144,311,638	26.07	No	Yes	12/31/2013
<b>Total</b>				<b>268,744,972</b>	<b>100.00</b>	<b>284,771,938</b>	<b>0</b>	<b>553,516,910</b>	<b>100.00</b>			

**BDD Participações S.A. CNPJ: 07.838.611/0001-52**

Shareholder	Nationality	State	CPF/CNPJ	Common Shares Quantity	%	Preferred Shares Quantity	%	Total Quantity	%	Member of the shareholders agreement	Controlling shareholder	Date of Last Change
Lázaro de Mello Brandão	Brazilian	SP	004.637.528-72	11,000,000	6.24	0	0	11,000,000	3.56	No	Yes	12/31/2013
NCD Participações Ltda	Brazilian	SP	48.594.139/0001-37	0	0	66,869,210	50.33	66,869,210	21.64	No	Yes	12/31/2013
Treasury				73,896,834	41.94	21,327,776	16.05	95,224,610	30.80	No	No	12/31/2013
Others				91,309,465	51.82	44,673,625	33.62	135,983,090	44.00			
<b>Total</b>				<b>176,206,299</b>	<b>100.00</b>	<b>132,870,611</b>	<b>100</b>	<b>309,076,910</b>	<b>100.00</b>			

**NCF Participações S.A. CNPJ: 04.233.319/0001-18**

Shareholder	Nationality	State	CPF/CNPJ	Common Shares Quantity	%	Preferred Shares Quantity	%	Total Quantity	%	Member of the shareholders agreement	Controlling shareholder	Date of Last Change
Fundação Bradesco	Brazilian	SP	60.701.521/0001-06	281,912,959	25.13	999,856,991	100.00	1,281,769,950	60.41	No	Yes	12/31/2013
Cidade de Deus Cia. Cial. de Participações S.A.	Brazilian	SP	61.529.343/0001-32	838,280,074	74.72	0	0	838,280,074	39.51	No	Yes	12/31/2013
Nova Cidade de Deus Participações S.A.	Brazilian	SP	04.866.462/0001-47	1,678,372	0.15	0	0	1,678,372	0.08	No	Yes	12/31/2013
<b>Total</b>				<b>1,121,871,405</b>	<b>100.00</b>	<b>999,856,991</b>	<b>100.00</b>	<b>2,121,728,396</b>	<b>100.00</b>			



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**BNDES Participações S.A.**

Shareholder	Nationality	CPF/CNPJ	Common Shares Qty	Common Shares %	Total Shares Qty	Total Shares %	Shareholders Agreement	Controller	Last Change
Banco Nacional de Desenvolvimento Econômico e Social									
BNDES	Brazilian	33.657.248/0001-89	1	100.00	1	100.00	No	Yes	12/31/2013
<b>Total</b>			<b>1</b>	<b>100.00</b>	<b>1</b>	<b>100.00</b>			

**Eletron S.A. CNPJ:00.514.998/0001-42**

Shareholder	Nationality	State	CPF/CNPJ	Common Shares Quantity	Common Shares %	Preferred Shares Quantity	Preferred Shares %	Total Quantity	Total %	Member of the shareholders agreement	Controlling shareholder	Date of Last Change
Opportunity Anafi Participações S.A.	Brazilian	RJ	02.992.366/0001-10	9,986,293	99.99	0	0	9,986,293	99.99	No	Yes	12/31/2013
Others				1,083	0.01	0	0	1,083	0.01			
<b>Total</b>				<b>9,987,376</b>		<b>0</b>	<b>0</b>	<b>9,987,376</b>	<b>100%</b>			

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Shareholder	Nationality	State	CPF/CNPJ	Common Shares		Preferred Shares		Total		Member of the shareholders agreement	Controlling shareholder	Date of Last Change
				Quantity	%	Quantity	%	Quantity	%			
Belapart S.A.	Brazilian	RJ	01.608.571/0001-76	1,236,116	26.18	0	0	1,236,116	21.73%	No	No	12/31/2013
Opportunity Holding FIP	Brazilian	RJ	08.277.553/0001-06	2,249,016	47.64	966,503	100.00	3,215,519	56.54%	No	Yes	12/31/2013
Valetron S.A.	Brazilian	RJ	01.772.313/0001-20	1,236,116	26.18	0	0	1,236,116	21.73%	No	No	12/31/2013
Others				6	0.00%			6	0.00%			
<b>Total</b>				<b>4,721,254</b>	<b>100.00%</b>	<b>966,503</b>	<b>100.00</b>	<b>5,687,757</b>	<b>100.00%</b>			

**Valetron S.A. CNPJ: 01.772.313/0001-20**

Shareholder	Nationality	State	CPF/CNPJ	Common Shares		Preferred Shares		Total		Member of the shareholders agreement	Controlling shareholder	Date of Last Change
				Quantity	%	Quantity	%	Quantity	%			
Verônica Valente Dantas	Brazilian	RJ	262.853.205-00	544	52.56			544	52.56	No	Yes	12/31/2013
Sweet River Fund	Cayman Islands		05.707.521/0001-05	490	47.34			490	47.34	No	No	12/31/2013
Others				1	0.10			1	0.10			
<b>Total</b>				<b>1035</b>	<b>100.00</b>			<b>1035</b>	<b>100.00</b>			

**Belapart S.A. CNPJ: 01.608.571/0001-76**

Shareholder	Nationality	State	CPF/CNPJ	Common Shares		Preferred Shares		Total		Member of the shareholders agreement	Controlling shareholder	Date of Last Change
				Quantity	%	Quantity	%	Quantity	%			
Verônica Valente Dantas	Brazilian	RJ	262.853.205-00	544	52.56			544	52.56	No	Yes	12/31/2013
Sweet River Fund	Cayman Islands		05.707.521/0001-05	490	47.34			490	47.34	No	No	12/31/2013
Others				1	0.10			1	0.10			
<b>Total</b>				<b>1035</b>	<b>100</b>			<b>1035</b>	<b>0.00</b>			

Table of Contents**15.3 Distribution of Capital**

Date of last change	4/17/2014
Number of individual shareholders (units)	141,729
Number of corporate shareholders (units)	3,811
Number of institutional investors (units)	2,137

**Outstanding shares**

Outstanding shares corresponding to all Issuer shares, except for the shares kept by the controlling entity, by related people, by the managers of the issuer, and by the shares held in treasury

Quantity of common shares (Units)	1,262,807,257	38.800000%
Quantity of preferred shares (Units)	1,878,758,554	89.100000%
Quantity of class A preferred shares (Units)	1,878,758,554	89.100000%
<b>Total</b>	<b>3,141,565,811</b>	<b>58.600000%</b>

**15.4 Shareholders Organizational Chart**

Vale decided not to disclose the organizational chart of its shareholders at that moment, as set forth in Exhibit 24 in CVM Instruction 480 dated December 7, 2009.

**15.5 Shareholders Agreements filed at the headquarters of the Issuer or the controlling entity:**

Vale does not have a shareholders agreement. However, the controlling shareholders of Valepar S.A. signed a Private Instrument of Agreement for Valepar S.A. shareholders (Shareholders Agreement).

**a) Parties**

Litel Participações S.A., Bradespar S.A., Mitsui & Co. Ltd., BNDES Participações S.A. and Eletron S.A. (Signatories)

b) *Date of Signing*

April 24, 1997.

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c) *Term*

20 years from the date signed, extendable for equal periods of 10 years.

d) *Description of clauses relative to the exercise of the right to vote and controlling votes.*

The Shareholders' Agreement stipulates that the Signatories shall be obliged to orientate their representatives in the General Meetings and the meetings of Vale's Board of Directors to vote as per agreed in the Prior Meeting of Valepar.

With the exception of permitted quorums mentioned below, items in the Prior Meetings will be decided by a simple majority of the votes of the Signatories present.

In accordance with the Shareholders' Agreement, it is necessary to have the support of at least 75% of the holders of the relevant common shares for the adoption of the following items:

- amendment of Vale's bylaws, except for a legal requirement;
  
- increase of Vale's share capital by share subscription, creation of a new class of shares, change in the characteristics of the existing shares or any reduction of Vale's share capital;
  
- issuance of debentures of Vale, whether or not convertible into shares of Vale, call options or any other security of Vale;
  
- determination of issuance price for any new shares of share capital or other security of Vale;
  
- amalgamation, spin-off, or merger to which Vale is a party, as well as any change to Vale's corporate form;
  
- dissolution, receivership, bankruptcy or any other voluntary act for financial reorganization or any suspension thereof;



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- the election and replacement of Vale's Board of Directors and of Executive Officers of Vale;
- the election and replacement of the Chairman of the Board of Vale;
- the disposal or acquisition by Vale of an equity interest in any company, as well as the acquisition of any shares of share capital of Vale for maintenance in treasury;
- the participation by Vale in a group of companies or in a consortium of any kind;
- the execution by Vale of agreements relating to distribution, investment, sales, exportation, technology transfer, trademark license, patent exploration, license to use, and leases in which Vale is a part;
- the approval and amendment of Vale's business plan;
- the determination of the compensation of the executive officers and directors of Vale, as well as the duties of the Board of Directors and the Board of Executive Officers;

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- any profit sharing among the members of the Board of Directors or Board of Executive Officers of Vale
  
- any change in the corporate purpose of Vale;
  
- the distribution or non-distribution of any dividends (including distributions classified as interest on shareholders' equity) on any shares of share capital of Vale other than as provided in Vale's bylaws;
  
- the appointment and replacement of Vale's independent auditor;
  
- the creation of any indemnity guarantee, granting of guarantees including rendering of sureties by Vale with respect to obligations of any unrelated party, including any affiliates or subsidiaries;
  
- the passing of any resolution on any matter which, pursuant to applicable law, entitles a shareholder to withdrawal rights through reimbursement of his shares;
  
- the appointment and replacement by the Board of Directors of any representative of Vale in subsidiaries, companies related to Vale or other companies in which Vale is entitled to appoint directors and officers; and
  
- any change in the maximum debt limit and debt to equity threshold, as defined in the shareholders' agreement, among others.

e) *Description of clauses relative to the appointment of directors*

The management of Vale's business will be carried out by experienced, independent, competent professionals, who have the required qualifications for the positions that they hold.

For the purpose of electing Members of the Board at the respective General Meetings, the Signatories will indicate the total number of Board members, whose designation will fall to Valepar, proportionately to its share in the share capital of Valepar. The CEO of Vale will be selected from names in a triple list put forward by an international executive search company and elected in a meeting of the Board of Directors summoned for this purpose. It will fall to the CEO of Vale to propose to the Board of Executive Officers the names of the other directors.

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Each Signatory will, during the period of his or her respective mandate, be able to replace the Board member they indicated. In this situation, all Signatories will vote in favor of the name thus proposed at the General Meeting called for this purpose.

*f) Description of clauses relative to the transfer of shares and the preference for acquiring them*

The Shareholder Agreement stipulates that Valepar S.A. will have preference as regards the Signatories for the acquisition at any time of Vale's shares, as well as vetoing the direct acquisition of Vale shares by the

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Signatories, unless there is authorization from the remaining Signatories, to be granted in a Prior Shareholder Meeting, at which the issue must be approved by a quorum of 75% of the total of the common Valepar shares, related to the shareholder agreement.

In line with the Shareholder Agreement, it is necessary to have the Approval of the Shareholders of 100% of the common shares related to the Agreement in question for the disposal in any form of Vale shares owned by Valepar.

g) *Description of clauses which restrict or tie voting rights of members of the Board of Directors*

See line d .

**15.6 Relevant Changes in the shareholdings of Members of the Control Group and issuer managers**

There were no significant changes in the shareholdings of Members of the Control Group and directors of the Company in the last 3 financial years.

**15.7 Other relevant information**

The following is additional information related to Vale controlling group:

1) As described in item 15.1, **Litel Participações S.A.**, is one of the indirect controllers of Vale, and it is controlled by BB Carteira Ativa.

**BB Carteira Ativa** shares are 100% owned by PREVI – Caixa de Previdência dos Funcionários do Banco do Brasil ( PREVI ). BB Carteira Ativa is managed by BB Gestão de Recursos – Distribuidora de Títulos e Valores Mobiliários S.A.

**Previ** is a private pension fund and its participants are employees of the Banco do Brasil and of Previ itself. Previ management is divided between the Board of Directors and the Board of Executive Officers. The Board of Executive Officers is composed of six members: President, Director of Administration, and Directors for Investments, Security, Participations, and Planning. The Board of Directors is composed of six members and their substitutes. Three are elected by the participants and users of the security, and three others indicated by the Banco do Brasil. According to the Statutes of Previ, the Board of Directors is the part of the organizational structure responsible for defining the general policy of the administration of the entity.

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On December 31, 2013 the Board of Directors was composed of the following board members: Robson Rocha (President), Ivan de Souza Monteiro, Alexandre Correa Abreu, Rafael Zanon Guerra de Araújo, Celia Maria Xavier Larichia and Haroldo do Rosário Vieira; and their respective substitutes: Carlos Eduardo Leal Neri, Carlos Alberto Araújo Netto, Eduardo Cesar Pasa, José

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Ulisses de Oliveira, Jr., Luiz Carlos Teixeira, and José Souza de Jesus. The Board of Executive Officers was composed of the following members: Dan Conrado (President), Paulo Assunção de Sousa (Director of Administration), Renê Sanda (Director of Investments), Marco Geovanne Tobias da Silva (Director of Participations), Vitor Paulo Camargo Gonçalves (Director of Planning), Marcel Juviano Barros (Director of Security). The Audit Committee was composed of the following members: Fabiano Félix do Nascimento (President), Odali Dias Cardoso, Aureli Carlos Balestrini, and Sandro Kohler Marcondes; and by their corresponding substitutes: Aldo Bastos Alfano, Diusa Alves de Almeida, Daniel André Stieler and Vagner Lacerda Ribeiro. Additionally, the CEO, Mr. Dan Conrado, for monitoring the companies which make up the variable income portfolio and the real estate portfolio, especially as concerns the shareholdings and Previ's share and representation in the administrative and supervisory organs of the companies or undertakings, with a view to adopting any measures necessary to assure good corporate governance for companies in which investments have been made.

2) As described in the item 15.1, **Fundação Bradesco** is one of the indirect controlling of Vale.

The Fundação Bradesco is a non-profit entity which has worked to foster and develop children and adolescents through schools in low income areas. The activities of the Bradesco Foundation are financed exclusively by resources coming from donations which Bradesco and its affiliates make, as well as from dividends and interest on its own capital from its share in Bradesco capital.

According to the terms of the Fundação Bradesco bylaws, all Bradesco directors, members of the Board and department directors, as well as all directors and responsible for Cidade de Deus Cia. Cial. de Participações S.A., act as members of the board of trustees of the Fundação Bradesco, known as the Mesa Regedora,

3) As described in the item 15.1, **Mitsui & Co. Ltd.** is one of the indirect controlling of Vale.

Mitsui & Co. Ltd., direct controlling entity of Valepar S.A., has share control spread among many shareholders. The following table presents information regarding Mitsui & Co. Ltd. on March 31, 2014:

Table of Contents**Mitsui & Co. Ltd.**

Shareholder	Common Shares		Preferred Shares		Total Shares		Shareholders Agreement	Controlling Shareholder	Last Change
	Qty	%	Qty	%	Qty	%			
The Master Trust Bank of Japan, Ltd. (trust account)	144,762,000	91			144,762,000	91	No	No	3/31/2014
Japan Trustee Services Bank, Ltd. (trust account)	107,395,000	5.87			107,395,000	5.87	No	No	3/31/2014
Sumitomo Mitsui Banking Corporation	38,500,000	2.10			38,500,000	2.10	No	No	3/31/2014
Mitsui & Co., Ltd.	36,370,000	1.99			36,370,000	1.99	No	No	3/31/2014
Nippon Life Insurance Company	35,070,000	1.92			35,070,000	1.92	No	No	3/31/2014
Barclays Securities Japan Limited	25,000,000	1.37			25,000,000	1.37	No	No	3/31/2014
Mitsui Sumitomo Insurance Company, Limited	24,726,000	1.35			24,726,000	1.35	No	No	3/31/2014
Others	[1,417,330,527]	77.249			[1,417,330,527]	77.249			3/31/2014
<b>Total</b>	<b>1,829,153,527</b>	<b>100</b>			<b>1,829,153,527</b>	<b>100</b>			

4) As described in item 15.1, **Banco Nacional de Desenvolvimento Econômico e Social - BNDES** is one of the indirect controlling entities of Vale. BNDES is a public company with legal personality under private law, whose shares are 100% owned by the Federal Government.

5) As described in item 15.1, **Opportunity Holding FIP** is one of the indirect controlling entities of Vale. Opportunity Holding FIP is an investment fund administered by BNY Mellon Serviços Financeiros DTV S.A. and managed by Opportunity Private Equity Gestora de Recursos Ltda., The person responsible for the fund investment decisions is the manager, who, in turn, is represented by the administrators, Ms. Maria Amália Delfim de Melo Coutrim (CPF no. 654.298.507-72) and Mr. Marco Nascimento Ferreira (CPF No. 489.614.185-72).

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**16.1 Description of rules, policies, and practices by the issuer on transactions with related parties**

Vale is the largest private Brazilian company, and operates in various segments of the economy, with cash flow and wealth consistent with its size. For this reason, in view of the constant search for better trading conditions for the achievement of its activities and the investment of its resources, the Company often negotiates the terms of the transactions inherent in its businesses, which inevitably leads to agreeing on transactions with related parties whenever its best interests and those of its shareholders are served.

Thus, transactions with related parties are made by the Company in a strictly exchanged based manner, observing usual price and market conditions, and therefore do not generate any undue advantage to their counterparts nor damage to the Company.

As provided in the Bylaws, it is Vale's Board of Directors' responsibility to discuss any business between the Company and (i) its shareholders, directly or through interposed companies, (ii) companies that participate, directly or indirectly, in the capital of a controlling shareholder or are Subsidiary by or under common control of entities that participate in the capital of the controlling shareholder, and/or (iii) companies in which the controlling shareholder of the company is involved. Accordingly, the Board of Directors may delegate responsibilities with limits and procedures that meet the peculiarities and nature of operations, without withholding due information on all the Company's transactions with related parties.

In December 2013, Vale also has a Policy for Transactions with Related Parties ( Policy ), which establishes guidelines and principles to ensure that the transfer, free of charge or onerous, of funds, services or obligations involving people and/or companies with whom Vale has the possibility of contracting under conditions that are not independent conditions that characterize transactions with third parties ( Related Parties and Transactions with Related Parties , respectively), being conducted under market standards, including the best practices in corporate governance, with due transparency, prioritizing Vale's best interests, avoiding abuses and misuses of company assets, as well as preventing the granting of loans in favor of Related Parties, except in favor of subsidiaries and affiliates of Vale. For more information on the Policy for Transactions with Related Parties, see items 12.2 (d) and 12.4 (c) in this Reference Form.

Any violation against the terms in this Policy will be considered a violation against the Code of Ethics and Conduct and is subject to procedures and penalties set forth therein. Additionally, the infringing party will also be responsible for losses and damages caused to Vale and third parties.

Additionally, Vale has Governance and Sustainability Committee committed to reviewing and proposing improvements to its Code of Ethics and Conduct and



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to the management system to avoid conflicts of interest, advising on potential conflicts of interest between the Company, its shareholders, and directors, as well as under the Policy, evaluating the selection process and conditions of transactions to be appreciated by the Board of Directors.

**16.2 Information on transactions with related parties**

<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	10/08/2007
<b>Amount (R\$)</b>	R\$ 774,568,410.00
<b>Current balance (R\$)</b>	R\$ 413,363,583.23
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	09/15/2019
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	1.8%
<b>Relationship with the Issuer</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Funding for expansion of transport capacity of Carajás Railroad
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>BNDES may terminate the contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS, the following are certified by BNDES:</p> <p>a) reducing Vale's staff without offering training programs and/or replacement programs for workers in other companies;</p> <p>b) inclusion in Vale bylaws, statute or contract, of a provision by which a special quorum is required for deliberation or approval of matters limiting or restricting Vale or its controlling shareholders, or even the inclusion therein, of conditions leading to:</p> <p>i) restrictions on Vale's ability to grow or its technological development;</p> <p>ii) restrictions on Vale's access to new markets; or</p>

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iii) restrictions or loss of ability to pay financial obligations resulting from this operation;

c) the use of proceeds to finance any purpose other than the expansion of Carajás railroad's transport capacity to 103 million tons transported annually;

d) give, without prior authorization from BNDES, guaranties of any kind in operations with other creditors without the same quality of guaranties provided to BNDES, with equal priority of payment;

e) not observing the following ratios during the term of the contract:

- Adjusted EBITDA debt ratio less than or equal to 4.5, and
- Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

And, in case these ratios are not observed, guarantees an amount equivalent to at least 130% of the debt, as stipulated by BNDES within 60 days from the date of written communication.

In case the proceeds granted under this Contract are used for any purpose other than the expansion of the Carajás railroad's annual transport capacity to 103 million tons, BNDES, without prejudice to the provisions, will inform the Federal Public Prosecutor, pursuant to the terms of Law No. 7492 of 06.16.86.

This contract will also expire, with the enforceability of the debt and suspension of any immediate disbursement, at the date of installing as a Federal Deputy or Senator or any person remunerated by Vale, or any owner, shareholder, or director of Vale, or any person listed in the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

The change in indirect control of Vale, during the term of the Contract, is excluded from the possibility of early expiration by default.

**Nature and reason for the transaction/other relevant**

Applicable interest rate is: TJLP (long-term interest rate) +1.8% per year.



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<b>information</b>	This is funding for expansion of transport capacity of Carajás Railroad.
<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	03/28/2008
<b>Amount (R\$)</b>	R\$ 808,350,800.00
<b>Current balance (R\$)</b>	R\$ 835,611,793.75
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	09/15/2029
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	1.46%
<b>Relationship with the Company</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Financing for installation of the UHE Estreito Hydroelectric Power Plant
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>BNDES may terminate this contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS, the following are certified by BNDES:</p> <p>a) reducing Vale's staff without providing training programs and/or replacement programs for workers in other companies;</p> <p>b) inclusion in Vale bylaws, statute, or contract, of a provision by which a special quorum is required for deliberation or approval of matters limiting or restricting control of any of these companies by the respective controlling shareholders, or even the inclusion therein, of conditions leading to:</p> <p>i) restrictions on Vale's ability to grow or its technological development;</p> <p>ii) restrictions on Vale's access to new markets; or</p> <p>iii) restrictions or loss of ability to pay financial obligations resulting from this operation;</p>

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c) give, without prior authorization from BNDES, guaranties of any kind in operations with other creditors without the same quality of guaranties provided to BNDES, with equal priority of payment;

d) not observing the following ratios during the term of the contract:

- Adjusted EBITDA debt ratio less than or equal to 4.5, and
- Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

And, in case these ratios are not observed, guarantees an amount equivalent to at least 130% of the debt, as stipulated by BNDES, and within 60 days from the date of written communication.

In case the proceeds granted under this Contract are used for any purpose other than the installment of the UHE Estreito Hydroelectric Power Plant and its transmission system, BNDES, without prejudice to the terms set forth above in this Clause, will inform the Federal Public Prosecutor, pursuant to the terms of Law No. 7492 of 06.16.86.

The contract will also expire, with the enforceability of the debt and immediate suspension of any disbursement, at the date of installing as a Federal Deputy or Senator or any person remunerated by Vale, or any owner, holder or director of Vale, or any person listed in the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

The change in indirect control of Vale, during the term of the Contract, is excluded from the possibility of early expiration by default.

**Nature and reasons for the operation / other relevant information**

The applicable interest rates are: TJLP+1.46% per year (subcredits A and B), and TJLP (subcredit C).

This is financing for installation of UHE Estreito Hydroelectric Power Plant.

**Name of related party**

Banco Nacional de Desenvolvimento Econômico e Social - BNDES

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<b>Date of Transaction</b>	12/26/2008
<b>Amount (R\$)</b>	R\$ 7,300,000.000.00
<b>Current balance (R\$)</b>	R\$ 4,404,156,109.57
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	02/15/2023
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	1.5%
<b>Relationship with the Company</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Credit facility
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>BNDES may terminate this contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS, the following are certified by BNDES:</p> <p>a) reducing Vale's staff without providing training programs and / or replacement programs for workers in other companies;</p> <p>b) the existence of a definitive legal judgment on the performance of acts by Vale consisting of an infringement of legislation which deals with combating discrimination based on race or gender, child labor and forced labor;</p> <p>c) inclusion in Vale bylaws, statute, or contract, of a provision by which a special quorum is required for deliberation or approval of matters limiting or restricting control of any of these companies by the respective controlling shareholders, or even the inclusion therein, of conditions leading to:</p> <p>i) restrictions on Vale's ability to grow or its technological development;</p> <p>ii) restrictions on Vale's access to new markets, or</p>

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iii) restrictions or loss of ability to pay financial obligations resulting from this operation;

d) if required levels are not met within 60 days from the date of written notification by BNDES, not provide actual guarantees, accepted by BNDES, in value corresponding to at least 130% of the debt, except when in such period, levels described below are met:

- Adjusted EBITDA debt ratio less than or equal to 4.5, and
- Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

In case of change of indirect control of VALE, without prior authorization from BNDES, does not submit a letter of guaranty issued according to the BNDES model.

In the event proceeds granted under this contract are used for a purpose different from that provided for in Clause First: revolving credit limit, BNDES, notwithstanding above provisions, will notify the fact to the Federal Public Prosecutor pursuant to the terms of Law No. 7,492 of 06.16.86.

The contract will also expire, with the enforceability of the debt and immediate suspension of any disbursement, at the date of installing as a Federal Deputy or Senator or anyone who is remunerated by Vale, or any owner, holder or director of Vale, or any person listed the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

### Nature and Reasons for the operation / other relevant information

The applicable interest rates are: Libor 3M+1.5% per year (subcredit A1, A2, A3, A4, A5, A6, A7, A8), Libor 3M + 2.0% per year (subcredits A9 and A10), TJLP (subcredits B4, B11, B15 and B18), TJLP + 1.30% per year (subcredit B17). TJLP + 1.36% per year (subcredits B2, B3, B6, B7, B9, B10, B13 and B14.). TJLP + 1.76% per year (subcredits B1, B5, B8 and B12). This is a Credit facility for financing Salobo I and II, Mineração Onça Puma, and Usina VIII and Itabira Capital Projects.

### Name of related party

Banco Nacional de Desenvolvimento Econômico e Social - BNDES

### Date of transaction

09/24/2012

### Amount (R\$)

R\$ 3,882,956,000.00

### Current balance (R\$)

R\$ 3,071,728,557.79

### Amount of related party

Not applicable

### Duration

09/15/2022

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<b>Loan of other type of debt</b>	YES
<b>Interest rate</b>	1.30%
<b>Relationship with the Company</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Financing to implement the Training Program for the Northern Logistic System (CLN), in order to increase the mineral transportation capacity from 115 million tns per year (Mtpa) to approximately 150 Mtpa.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>BNDES may terminate this contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS, the following are certified by BNDES:</p> <p>a) reducing Vale's staff without providing training programs and / or replacement programs for workers in other companies</p> <p>b) the existence of a definitive legal judgment on the performance of acts by Vale consisting of an infringement of legislation which deals with combating discrimination based on race or gender, child labor and forced labor;</p> <p>c) inclusion in Vale bylaws, statute, or contract, of a provision by which a special quorum is required for deliberation or approval of matters limiting or restricting control of any of these companies by the respective controlling shareholders, or even the inclusion therein, of conditions leading to:</p> <p>i) restrictions on Vale's ability to grow or its technological development;</p> <p>ii) restrictions on Vale's access to new markets; or</p> <p>iii) restrictions or loss of ability to pay financial obligations resulting from this operation;</p> <p>d) if required levels are not met within 60 days from the date of written notification by BNDES, not provide actual guarantees, accepted by BNDES, in value corresponding to at least 130% of the debt, except when in such period, levels described below are met:</p>



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- Adjusted EBITDA debt ratio less than or equal to 4.5, and
- Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

In case of change of indirect control of Vale, without prior authorization from BNDES, does not submit a letter of guaranty issued according to the BNDES model.

In the event proceeds granted under this contract are used for a purpose different from that provided for in First Clause: implementation of Training Program for the Northern Logistics System (CLN), with the purpose of increasing ore transportation from 115 million tons per year (Mtpa) to approximately 150 Mtpa.

The contract will also expire, with the enforceability of the debt and immediate suspension of any disbursement, at the date of installing as a Federal Deputy or Senator or anyone who is remunerated by Vale, or any owner, holder or director of Vale, or any person listed the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

The changes in Vale's internal shareholder control, during this Contract, is excluded from the hypothesis of early termination.

<b>Nature and reasons for the operation / other relevant information</b>	Applicable interest rates are: TJPL + 1.30% per year (subcredits A, B, C, D, and E), 1.30% per year (subcredits F and G) and, TJPL (subcredits H).
<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	12/27/2013
<b>Amount (R\$)</b>	R\$136,700,000.00
<b>Current balance (R\$)</b>	R\$0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	1/15/2022
<b>Loan of other type of debt</b>	YES
<b>Interest rate</b>	3.5%
<b>Relationship with the Company</b>	Indirect controller
<b>Purpose of the contract</b>	Funding to support the 2013-2015 investment plan for technological development of the Tecnored process.



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**Conditions of termination or expiration**

BNDES may terminate the contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS, the following are certified by BNDES:

- a) reducing Vale's staff without offering training programs and/or replacement programs for workers in other companies
  
- b) the existence of a definitive legal judgment on the performance of acts by Tecored consisting of an infringement of legislation which deals with child labor, forced labor, or crime against the environment;
  
- c) inclusion in Tecored bylaws, statute or contract, of a provision by which a special quorum is required for deliberation or approval of matters limiting or restricting the control of any of these companies by the respective controlling shareholders, or even the inclusion therein, of conditions leading to:
  - i) restrictions on Tecored's ability to grow or its technological development;
  
  - ii) restrictions on Tecored's access to new markets; or
  
  - iii) restrictions or loss of ability to pay financial obligations resulting from this operation;

Non-compliance by Tecored with following ratios during the term of the contract:

- Adjusted EBITDA debt ratio less than or equal to 4.5, and
  
- Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0

And, in case these ratios are not observed, guarantees an amount equivalent to at least 130% of the debt, as stipulated by BNDES within 60 days from the date of written communication.

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In case of change of indirect control of Tecnored, without prior authorization from BNDES, and Tecnored does not submit a letter of guaranty issued according to the BNDES model.

In case the proceeds granted under this Contract are used for any purpose other than the one set forth in Clause One: 2013-2015 investment plan for technological development in the Tecnored process, BNDES, without prejudice to the provisions, will inform the Federal Public Prosecutor, pursuant to the terms of Law No. 7492 of 06.16.86.

This contract will also expire, with the enforceability of the debt and suspension of any immediate disbursement, at the date of installing as a Federal Deputy or Senator or any person remunerated by Tecnored, or any owner, shareholder, or director of Vale, or any person listed in the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

<b>Nature and reasons for the operation / other relevant information</b>	Available interest rate: 3.5% per year fixed in reais
<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	10/19/2012
<b>Amount (R\$)</b>	R\$ 88,635,000.00
<b>Current balance (R\$)</b>	R\$ 82,510,563.57
<b>Amount of related party</b>	<b>Not applicable</b>
<b>Duration</b>	11/15/2018
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	1.70%
<b>Relationship with the Company</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Financing for Phase III of Vale Fertilizantes
<b>Guaranties and insurance</b>	Vale s Corporate Guarantee
<b>Conditions of termination or expiration</b>	<p>BNDES may terminate this contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS, the following are certified by BNDES:</p> <p>a) reducing Vale Fertilizantes staff without providing training programs and / or replacement programs for workers in other companies;</p> <p>b) the existence of a definitive legal judgment on the performance of acts by Vale</p>



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Fertilizantes consisting of an infringement of legislation which deals with combating discrimination based on race or gender, child labor and forced labor;

c) inclusion in Vale Fertilizantes bylaws, statute or contract, of a provision by which a special *quorum* is required for deliberation or approval of matters limiting or restricting Vale or its controlling shareholders, or even the inclusion therein, of conditions leading to:

i) restrictions on Vale Fertilizantes ability to grow or its technological development;

ii) restrictions on Vale Fertilizantes access to new markets, or

iii) restrictions or loss of ability to pay financial obligations resulting from this operation;

Not observing the following ratios during the term of the contract:

- Adjusted EBITDA debt ratio less than or equal to 4.5, and
  
- Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

And, in case these ratios are not observed, guarantees an amount equivalent to at least 130% of the debt, as stipulated by BNDES, and within 60 days from the date of written communication.

In case of change of indirect control of Vale Fertilizantes, without prior authorization from BNDES, does not submit a letter of guaranty issued according to the BNDES model.

In the event proceeds granted under this contract are used for a purpose different from that provided for in First Clause: acquisition of wagons, BNDES, notwithstanding above provisions, will notify the fact to the Federal Public Prosecutor pursuant to the terms of Law No. 7,492 of 06.16.86.

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The contract will also expire, with the enforceability of the debt and immediate suspension of any disbursement, at the date of installing as a Federal Deputy or Senator or anyone who is remunerated by VLI Multimodal, or any owner, holder or director of VLI Multimodal, or any person listed the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

<b>Nature and reasons for the operation / other relevant information</b>	Applicable interest rate: TJLP + 1.70% per year (subcredits A, B, and C), TJL + 2.70% per year and Currency Basket + 1.70% Financing for Phase III of Vale Fertilizantes.
<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	10/27/2010
<b>Amount (R\$)</b>	R\$ 246,636,000
<b>Current balance (R\$)</b>	R\$ 184,589,120.87
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	11/15/2018
<b>Loan of other type of debt</b>	YES
<b>Interest rate</b>	5.5%
<b>Relationship with the Company</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Funding to expand the production capacity of phosphoric and sulfuric acids in Uberaba (Vale Fertilizantes) and acquisition of machinery and equipment (Phase III Project)
<b>Guaranties and insurance</b>	Vale s corporate guarantee
<b>Conditions of termination or expiration</b>	<p>BNDES may terminate this contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS, the following are certified by BNDES:</p> <p>a) reducing Vale Fertilizante s staff without providing training programs and / or replacement programs for workers in other companies;</p> <p>b) the existence of a definitive legal judgment on the performance of acts by Vale consisting of an infringement of legislation which deals with combating discrimination based on race or gender, child labor and forced labor;</p> <p>c) inclusion in Vale Fertilizantes bylaws, statute, or contract, of a provision by which a special quorum is required for deliberation or approval of matters limiting or restricting control of any of these companies by the respective controlling shareholders, or even the inclusion therein, of conditions leading to:</p> <p>i) restrictions on Vale Fertilizantes s ability to grow or its technological development;</p>

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- ii) restrictions on Vale Fertilizantes' s access to new markets, or
- iii) restrictions or loss of ability to pay financial obligations resulting from this operation;

Non-compliance, during the term of the agreement, with the following rates:

- Adjusted EBITDA debt ratio less than or equal to 4.5, and



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- Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

And, in case these ratios are not observed, guarantees an amount equivalent to at least 130% of the debt, as stipulated by BNDES, and within 60 days from the date of written communication.

In case of change of indirect control of Vale Fertilizantes, without prior authorization from BNDES, and Vale Fertilizantes does not submit a letter of guaranty issued according to the BNDES model.

In the event proceeds granted under this contract are used for a purpose different from that provided for in Clause First: acquisition of wagons, BNDES, notwithstanding above provisions, will notify the fact to the Federal Public Prosecutor pursuant to the terms of Law No. 7,492 of 06.16.86.

The contract will also expire, with the enforceability of the debt and immediate suspension of any disbursement, at the date of installing as a Federal Deputy or Senator or anyone who is remunerated by Vale Fertilizantes, or any owner, holder or director of Vale Fertilizantes, or any person listed the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

<b>Nature and reasons for the operation / other relevant information</b>	Available interest rate: TJLP + 2.12% per year (Subcredit A), TJLP + 3.12% per year (Subcredit B) and 5.5% per year (Subcredit C) fixed in reais This is the funding for Phase III Project of Vale Fertilizantes.
<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	11/13/2009
<b>Amount (R\$)</b>	R\$ 40,154,200.00
<b>Current balance (R\$)</b>	R\$ 19,800,573.84
<b>Amount of related party</b>	<b>Not applicable</b>
<b>Duration</b>	02/15/2016
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	1.80%
<b>Relationship with the Company</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Financing to expand the storage capacity of plaster in Uberaba Compartimento F (Vale Fertilizantes)
<b>Guaranties and insurance</b>	Vale s Corporate Guarantee

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### Conditions of termination or expiration

BNDES may terminate this contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS , the following are certified by BNDES:

- a) reducing Vale Fertilizantes staff without providing training programs and / or replacement programs for workers in other companies;
- b) the existence of a definitive legal judgment on the performance of acts by Vale Fertilizantes consisting of an infringement of legislation which deals with combating discrimination based on race or gender, child labor and forced labor;
- c) inclusion in Vale Fertilizantes ,or of their controlling company s, bylaws, statute or contract, of a provision by which a special *quorum* is required for deliberation or approval of matters limiting or restricting the payment of financial commitments made in this operation.

Vale s noncompliance with the following ratios during the term of the contract:

- Adjusted EBITDA debt ratio less than or equal to 4.5, and
- Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

And, in case these ratios are not observed, guarantees an amount equivalent to at least 130% of the debt, as stipulated by BNDES, and within 60 days from the date of written communication.

In case of change of indirect control of Vale Fertilizantes , without prior authorization from BNDES, not submit a letter of guaranty issued according to the BNDES model. In the event proceeds granted under this contract are used for a purpose different

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from that provided for in Clause First: acquisition of wagons, BNDES, notwithstanding above provisions, will notify the fact to the Federal Public Prosecutor pursuant to the terms of Law No. 7,492 of 06.16.86.

The contract will also expire, with the enforceability of the debt and immediate suspension of any disbursement, at the date of installing as a Federal Deputy or Senator or anyone who is remunerated by Vale, or any owner, holder or director of Vale, or any person listed the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

<b>Nature and reasons for the operation / other relevant information</b>	Applicable interest rates are: Currency Basket + 1.80% per year (subcredit A); TJLP + 1.80% per year (Subcredit B); and TJLP + 2.80% per year (Subcredit C) Financing for the expansion of plaster storing capacity in Uberaba - Compartimento F (Vale Fertilizantes). The agreement was amended on November 6, 2012
<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	11/23/2010
<b>Amount (R\$)</b>	R\$ 208,026,000.00
<b>Current balance (R\$)</b>	R\$ 210,091,190.82
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	9/15/2029
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	1.46%
<b>Relationship with the Issuer</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Financing for supplementation of resources relative to installation of Estreito Hydroelectric Power Plant (UHE)
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	BNDES may terminate this contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS , the following are certified by BNDES:  a) reducing Vale's staff without providing training programs and / or replacement programs for workers in other companies;

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- b) the existence of a definitive legal judgment on the performance of acts by the Beneficiary consisting of a crime against the environment or an infringement of legislation which deals with combating discrimination based on child labor and forced labor, in accordance with following provision;
- c) inclusion in the bylaws, statute, or contract of Vale or of the other controlling companies, of a provision by which a special *quorum* is required for deliberation or approval of matters limiting or restricting its controlling shareholders, or even the inclusion therein, of conditions leading to:
- i) restrictions on Vale's ability to grow or its technological development;
  - ii) restrictions on Vale's access to new markets, or
  - iii) restrictions or loss of ability to pay financial obligations resulting from this operation;
- d) give, without prior authorization from BNDES, guaranties of any kind in operations with other creditors without the same quality of guaranties provided to BNDES, with equal priority of payment;
- e) not observing the following ratios during the term of the contract:
- Adjusted EBITDA debt ratio less than or equal to 4.5, and
  - Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

And, in case these ratios are not observed, guarantees an amount equivalent to at least 130% of the debt, as stipulated by BNDES, and within 60 days from the date of written communication.

Termination of the contract in advance based on provisions of Paragraph b above will not occur provided the remedy imposed has been fulfilled or while the penalty imposed to the Beneficiary is being fulfilled following the due legal procedure.

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In the event of any of the situations provided for in Paragraph b above, observing the provisions of above paragraph, BNDES may only declare the expiration in advance of the debt resulting from the Contract within 60 days after giving notice to the Beneficiary.

In case proceeds granted under this Contract are used for any purpose other than general investments for installation of UHE Estreito Hydroelectric Power Plant and its transmission system, BNDES, without prejudice to the terms set forth above in this

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clause, will inform the Federal Public Prosecutor, pursuant to the terms of Law No. 7492 of 16.06.86.

The contract will also expire, with the enforceability of the debt and immediate suspension of any disbursement, at the date of installation as a Federal Deputy or Senator or any person remunerated by Vale, or any owner, controller or director of Vale, or any person listed in the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

The change in indirect control of Vale, during the term of the Contract, is excluded from the possibility of early expiration by default.

<b>Nature and reasons for the operation / other relevant information</b>	Applicable interest rate: TJLP+1.46% per year This is financing for supplementation of resources relative to installation of the (UHE) Estreito Hydroelectric Power Plant.
<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	6/30/2010
<b>Amount (R\$)</b>	R\$ 135,127,397.00
<b>Current balance (R\$)</b>	R\$ 94,688,186.95
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	7/15/2020
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	4.50%
<b>Relationship with the Issuer</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Financing to purchase national machinery and equipment for Project Pier IV, and for installation of a simple mobile waste material crushing, transportation and deposit system located in at the Carajás Complex, in Parauapebas (PA).
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Early maturity:

cases provided for in articles 333 and 1425 of the Civil Code or non-compliance with articles 39 and 40 in the Terms Applicable to BNDES Contracts ; b) false statement or document signed or provided by Vale; c) collection of deed which remains uncured for over 60 days and that materially affects Vale's capacity to pay for the Contract, start judicial or extrajudicial recovery, or requests bankruptcy or is declared bankrupt; d) change in Vale's indirect shareholding control, without prior authorization by the BNDES, during the term of the Agreement, and Vale does not submit, within two months from said change, letters of guaranty issued according to BNDES model, to be provided by financial

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institutions that are in social and economic situations that is deemed to be solvent, and the guarantors shall be bound as solidary debtors and principal payers of obligations in the Agreement, until final payment, expressly waiving the benefits in articles 366,827 and 838 in the Civil Code, and any change to term or amount of guarantee, is subject to prior authorization by guarantors; d.1 for purposes of the terms in item d, change in Vale's indirect shareholding control means change that represents the entrance of a new shareholder in Valepar's shareholding structure, with interest higher than 20%; e) Vale interrupt its activities; f) Vale fail to comply with terms in the Agreement; g) existence of final decision for engagement in acts classified as non-compliance with children's labor and slavery legislation, or environmental crime, unless the imposed repair is complied with or while the penalty imposed to Vale is being complied with. Eventual early redemption may be declared within 60 days from notification to Vale; h) inclusion in the bylaws, statute or contract of Vale of a provision by which a special *quorum* is required for deliberation or approval of matters limiting or restricting its controlling shareholders, or even the inclusion therein, of conditions leading to: h.1) restrictions on Vale's ability to grow or its technological development; h.2) restrictions on Vale's access to new markets; or h.3) restrictions or loss of ability to pay financial obligations resulting from this operation; i) if there is any change to Vale's personnel with no training program aiming to offer work opportunities in the area and/or relocation program for workers in other companies; i) installing as a Federal Deputy or Senator or any person remunerated by Vale, or any owner, controller or director of Vale, or any person listed in the prohibitions provided by the Federal Constitution, article 54, I and II, when there will be immediate termination of disbursements. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

In case of using the funds granted for purposes other than the one defined in the agreement, there should be early maturity and immediate termination of any

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disbursement and Vale will be subject, on the day following judicial or extrajudicial notice, to a 50% fine on the value released and not proved, added with appropriate fees.

<b>Nature and reasons for the operation / other relevant information</b>	Available interest rate: 4.50% per year fixed in reais
	This is financing to purchase national machinery and equipment for Project Pier IV, and for installation of a simple mobile waste material crushing, transportation and deposit system located at the Carajás Complex, in Parauapebas (PA).
<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	3/31/1997
<b>Amount (R\$)</b>	0.00
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Determined. Until full execution of its purpose. Contract was changed and consolidated on 06/28/2007.
<b>Loan or other type of debt</b>	No
<b>Interest rate</b>	-
<b>Relationship with the Company</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Regulate the relationship between Vale and BNDES to determine mineral rights for deposits which existence, size and economic validity are undefined in the Carajás mineral province, there being, therefore, no record of the asset's worth when privatized. The Contract stipulates bilateral rules with the purpose of regulating: survey tasks by Vale; the cases and manner for BNDES to provide financial resources to Vale for reimbursement of additional expenses resulting from survey tasks and payment of the respective administration fee; BNDES participatory rights; abandonment or assignment of exploratory targets or mining rights to third parties; payment of the finder's fee owed by BNDES to Vale.
<b>Guaranties and insurance</b>	Not applicable
<b>Conditions of termination or expiration</b>	Not applicable
<b>Nature and reasons for the operation / other relevant information</b>	-
<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of Transaction</b>	11/24/2009
<b>Amount (R\$)</b>	R\$ 170,423,295.62
<b>Current balance (R\$)</b>	R\$ 200,632,209.06
<b>Amount of related party</b>	Not applicable



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<b>Duration</b>	12/10/2028
<b>Loan or any other debt</b>	YES
<b>Interest rate</b>	3.00%
<b>Relationship with the Company</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Financing to purchase 15 tugboats
<b>Guaranties and insurance</b>	Vessel mortgage
<b>Conditions of termination or expiration</b>	<p>BNDES may terminate this contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS, the following are certified by BNDES:</p> <ul style="list-style-type: none"><li>a) reducing Vale's staff without offering training programs and/or replacement programs for workers in other companies;</li><li>b) inclusion in the statutes or bylaws or acts of incorporation by Vale of a mechanism by which a <i>quorum</i> is required to determine or approve particular matters restricting or limiting Vale's control by their respective controlling shareholders and also the inclusion in those documents of the mechanism which leads to:<ul style="list-style-type: none"><li>(i) restrictions on Vale's ability to grow or its technological development,</li><li>(ii) restrictions on Vale's ability to access new markets, or</li><li>(iii) restrictions or loss of ability to pay financial obligations of this operation.</li></ul></li></ul>

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c) inclusion in the bylaws, statutes or contract of Vale or of the other controlling companies, of a provision by which a special *quorum* is required for deliberation or approval of matters limiting or restricting its controlling shareholders, or even the inclusion therein, of conditions leading to:

i) restrictions on Vale's ability to grow or its technological development;

ii) restrictions on Vale's access to new markets, or

iii) restrictions or loss of ability to pay financial obligations resulting from this operation;

d) give, without prior authorization from BNDES, guaranties of any kind in operations with other creditors without the same quality of guaranties provided to BNDES, with equal priority of payment;

e) not observing the following ratios during the term of the contract:

- Adjusted EBITDA debt ratio less than or equal to 4.5, and

- Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

And, in case these ratios are not observed, guarantees an amount equivalent to at least 130% of the debt, as stipulated by BNDES, and within 60 days from the date of written communication.

In case proceeds granted under this Contract are used for any purpose other than general investments for purchase of machinery and equipment, BNDES, without prejudice to the terms set forth above in this clause, will inform the Federal Public Prosecutor, pursuant to the terms of Law No. 7492 of 06.16.86.

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This contract will also expire, with the enforceability of the debt and immediate suspension of any disbursement, at the date of installing as a Federal Deputy or Senator or any person remunerated by Vale, or any owner, controller or director of Vale, or any person listed in the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

The change in indirect control of Vale, during the term of the Contract, is excluded from the possibility of early expiration by default.

<b>Nature and reasons for the operation / other relevant information</b>	Available interest rate: Exchange rate variation + 3.00% per year fixed in US dollar. Operation aims the acquisition of 15 tugboats, where four vessels are to be built by H. Dantas Construções e Reparos Navais LTDA and eleven vessels are to be built by Detroit Brasil LTDA with funds from the Merchant Marine Fund and remitted by BNDES.
<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	3/25/2011
<b>Amount (R\$)</b>	R\$ 102,536,220.00
<b>Current balance (R\$)</b>	R\$ 103,535,117.77
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	4/15/2021
<b>Loan or other type of debt</b>	Yes
<b>Interest rate</b>	5.5%
<b>Relationship with the Company</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Funding for the acquisition of Handling and Transportation System, named 5ª Linha de Embarque to be installed at Terminal Marítimo Ponta da Madeira in São Luís (MA) to serve Pier IV project
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>BNDES may terminate this contract in advance, with the enforceability of the debt and immediate suspension of any disbursement, if in addition to the cases set forth in Articles 39 and 40 of PROVISIONS APPLICABLE TO BNDES CONTRACTS, the following are certified by BNDES:</p> <p>a) reducing Vale's staff without offering training programs and/or replacement programs for workers in other companies;</p> <p>b) existence of final decision condemning the Beneficiary for engagement in acts classified as environmental crimes or non-compliance with children's labor and slavery legislation, under the terms below.</p>

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c) inclusion in the bylaws, statute or contract of Vale or of the other controlling companies, of a provision by which a special *quorum* is required for deliberation or approval of matters limiting or restricting its controlling shareholders, or even the inclusion therein, of conditions leading to:

i) restrictions on Vale's ability to grow or its technological development;

ii) restrictions on Vale's access to new markets, or

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iii) restrictions or loss of ability to pay financial obligations resulting from this operation;

d) if required levels are not met within 60 days from the date of written notification by BNDES, not provide actual guarantees, accepted by BNDES, in value corresponding to at least 130% of the debt, except when in such period, levels described below are met:

- Adjusted EBITDA debt ratio less than or equal to 4.5, and
- Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

In case proceeds granted under this Contract are used for any purpose other than general investments for purchase of machinery and equipment, BNDES, without prejudice to the terms set forth above in this clause, will inform the Federal Public Prosecutor, pursuant to the terms of Law No. 7492 of 06.16.86.

This contract will also expire, with the enforceability of the debt and immediate suspension of any disbursement, at the date of installing as a Federal Deputy or Senator or any person remunerated by Vale, or any owner, controller or director of Vale, or any person listed in the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default.

Early termination based on the terms in item b above will not be in effect upon appropriate repair or during compliance with penalty imposed to the Beneficiary, according to due legal process.

In case of any of the circumstances provided for in b, under the terms above, the BNDES may only be entitled to represent early termination of the debt upon sixty (60) day prior written notice to the Beneficiary.

**Nature and reasons for the operation / other relevant information**

Available rate of interest: 5.5 % per year fixed in reais

Funding for the acquisition of Handling and Transportation System, named 5ª Linha de Embarque to be installed at Terminal Marítimo Ponta da Madeira in São Luís (MA) to serve Pier IV project

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<b>Name of related party</b>	Banco Nacional de Desenvolvimento Econômico e Social - BNDES
<b>Date of transaction</b>	6/30/2011
<b>Amount (R\$)</b>	R\$ 175,882,585.50
<b>Current balance (R\$)</b>	R\$ 165,717,036.62
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	7/15/2020
<b>Loan or other type of debt</b>	Yes
<b>Interest rate</b>	4.5% per year
<b>Relationship with the Company</b>	Indirect controlling shareholder
<b>Purpose of the contract</b>	Funding for the acquisition of 2,558 railroad wagons to transport iron ore
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Early maturity, regardless of judicial or extrajudicial notification: a) non-compliance with Vale obligations; b) application of funds from funding operations in purposes other than the one specified in the agreement.

c) inclusion in the bylaws, or statutes of Vale of a special *quorum* for approval of matters limiting its controlling shareholders, or inclusion of conditions leading to: 1) restrictions on Vale's ability to grow or its technological development; 2) restrictions on Vale's access to new markets, or 3) restrictions or loss of ability to pay financial obligations resulting from this operation; d) if there is any change to Vale's personnel with no training program aiming to offer work opportunities in the area and/or relocation program for workers in other companies; e) existence of final decision for engagement in acts classified as non-compliance with children's labor and slavery legislation, or environmental crime, and: 1) there will not be early maturity if there is repair or while the penalty imposed to Vale is being complied with; 2) early maturity will be determined only upon notice to Vale, sixty days in advance; ; f) installing as a Federal Deputy or Senator or any person remunerated by Vale, or any owner, controller or director of Vale, or any person listed in the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default; g) any of the cases provided for in articles 333 and 1425 of the Civil Code or non-compliance with articles 39 and 40 in the Terms Applicable to BNDES Contracts ; h) false statement or document signed or provided by Vale; i) collection of deed which remains uncured for over 60 days and that materially affects Vale's capacity to pay for the Contract, start judicial or extrajudicial recovery, or requests bankruptcy or is declared bankrupt; j) Vale's incorporation, merger or acquisition, unless: 1) the resulting company is Vale; 2) the resulting company

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maintains the financial rates described below; k) interruption of Vale's activities; l) pledge, attachment, seizure, in bankruptcy process, or any other judicial or administrative measure, of assets object of financial collaboration; m) non-compliance with any of the terms in the agreement

Financial ratios to be complied with by Vale:

- rate: Adjusted EBITDA debt ratio less than or equal to 4.5, and
  
- rate: Adjusted EBITDA ratio of Interest Expense greater than or equal to 2.0.

In case these ratios are not observed, guarantees an amount equivalent to at least 130% of the debt, as stipulated by BNDES, and within 60 days from the date of written communication. The article 39, I, in the Terms Applicable to BNDES Contracts should be interpreted in a restrictive fashion, being applicable solely to eventual default of Vale obligations under this Agreement.

**Nature and reasons for the operation / other relevant information**

Available rate of interest: 4.5 % per year fixed in reais

Funding for the acquisition of 2,558 railroad wagons to transport iron ore

**Name of related party**

Banco Nacional de Desenvolvimento Econômico e Social - BNDES

**Date of transaction**

12/17//2007

**Amount (R\$)**

R\$ 1,407,420,000.00

**Current balance (R\$)**

R\$ 1,684,534,433.06

**Amount of related party**

Not applicable

**Duration**

12/17/2027

**Loan or other type of debt**

Yes

**Interest rate**

0.8%

**Relationship with the Issuer**

Indirect Controlling shareholder

**Purpose of the contract**

Private issuance of debentures for financing of the expansion project of the Norte-Sul Railroad

**Guaranties and insurance**

None

**Conditions of termination or expiration**

EARLY REDEMPTION OF DEBENTURES

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In addition to the terms under Articles 39, 40 and 47(a) of APPLICABLE PROVISIONS, the debenture-holders may declare early maturity of all debentures and require payment by Vale, of the outstanding debt, plus interest and other fees accrued to date of payment, in the event of the following:

- a) Vale non-compliance of any financial obligation related to DEBENTURES not remedied within 10 (ten) business days from the date of maturity;
- b) Bankruptcies requested for Vale made by third parties not resolved by Vale within legal term; application for judicial or extrajudicial recovery made by Vale, or even a declaration of bankruptcy by Vale;
- c) dissolution and liquidation of Vale;
- d) the breach of any non-monetary obligation under this Deed not being remedied within 45 (forty five) days;
- e) declaration of early maturity of any debt of VALE due to breach of contract where the individual amount is equal to or greater than R\$ 125,000,000.00 or whose value, in a period of twelve (12 ) consecutive months, is equal to or greater than R\$ 1,000,000,000.00;
- f) inclusion in the statutes or bylaws by Vale and FNS of a mechanism by which a *quorum* is required to determine or approve particular matters restricting or limiting Vale's and FNS's control by their respective controlling shareholders and also the inclusion in those documents of the mechanism which leads to restrictions on Vale's and FNS's ability to grow or its technological development, restrictions on Vale's and FNS's ability to access new markets, or restrictions or loss of ability to pay financial obligations of the agreement.
- g) finding that data in the deed provided by VALE, is in any relevant aspect inaccurate or incomplete on the date of provision;
- h) change of corporate purpose of VALE, of FNS or Vale Logística, except when (i) previously approved by debenture holders representing the majority of the outstanding debentures, and (ii) for Vale Logística, if the change aims to include a complementary activity to those currently developed by Vale Logística;
- i) Should VALE approve reduction of the capital stock with reimbursement to shareholders of part of the value of the shares or diminishing their value, when not paid up, to amounts provided, without prior express approval of debenture holders representing the majority of outstanding debentures;



j) If the effective direct controlling shareholding of Vale or FNS or Vale Logística is

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modified in any way, unless previously approved by DEBENTURE holders; k) acquisition by FNS or Vale Logística of the shareholding control or interest in other companies, joint ventures or consortia that are activities that complement the regular development of the corporate purpose of FNS, characterizing deviation from the corporate purpose of FNS or Vale Logística, except when previously approved by debenture holders;

DEBENTURES may be exchanged for shares issued by FNS currently held by Vale.

**Nature and reasons for the operation / other relevant Information**

Available interest rate: TJLP + 0.8% per year.

Transaction for financing the Norte-Sul railroad expansion project. Three issuances of debentures: 12/17/2007 (1st issuance), 10/15/2009 (2nd issuance), and 6/9/2011 (3rd issuance). The amount reported above is the sum of all three issuances.

<b>Name of related party</b>	Banco Bradesco S.A.
<b>Date of transaction</b>	6/30/2010
<b>Amount (R\$)</b>	R\$ 49,156,089.00
<b>Current balance (R\$)</b>	R\$ 34,446,778.84
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	7/15/2020
<b>Loan or any other type of debt</b>	YES
<b>Interest rate</b>	4.5% per year fixed in reais
<b>Relationship with the Company</b>	Bradespar SA, indirect controlling shareholder of Vale, and Banco Bradesco S.A. are under common control.
<b>Purpose of the contract</b>	Funding for the acquisition of national machinery and equipment to be used in Pier IV Project and deployment of a Mobile Cracking System, Transport and Sterile Disposal (SME).
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Early maturity:

cases provided for in articles 333 and 1425 of the Civil Code or non-compliance with articles 39 and 40 in the Terms Applicable to BNDES Contracts ; b) false statement or document signed or provided by Vale; c) collection of deed which remains uncured for over 60 days and that materially affects Vale's capacity to pay for the Contract, start judicial or extrajudicial recovery, or requests bankruptcy or is declared bankrupt; d) change in Vale's indirect shareholding control, without prior authorization by the BNDES, during the term of the Agreement, and Vale does not submit, within two months from said change, letters of guaranty issued according to BNDES model, to be provided by financial institutions that are in social and economic situations that is deemed to be solvent, and the guarantors shall be bound as solidary debtors and principal payers of obligations in the Agreement, until final

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payment, expressly waiving the benefits in articles 366,827 and 838 in the Civil Code, and any change to term or amount of guarantee, is subject to prior authorization by guarantors; d.1 for purposes of the terms in item d, change in Vale's indirect shareholding control means change that represents the entrance of a new shareholder in Valepar's shareholding structure, with interest higher than 20%; e) Vale interrupt its activities; f) Vale fail to comply with terms in the Agreement; g) existence of final decision for engagement in acts classified as non-compliance with children's labor and slavery legislation, or environmental crime, unless the imposed repair is complied with or while the penalty imposed to Vale is being complied with. Eventual early redemption may be declared within 60 days from notification to Vale; h) inclusion in the bylaws, statute or contract of Vale of a provision by which a special *quorum* is required for deliberation or approval of matters limiting or restricting its controlling shareholders, or even the inclusion therein, of conditions leading to: h.1) restrictions on Vale's ability to grow or its technological development; h.2) restrictions on Vale's access to new markets; or h.3) restrictions or loss of ability to pay financial obligations resulting from this operation; i) if there is any change to Vale's personnel with no training program aiming to offer work opportunities in the area and/or relocation program for workers in other companies; j) installing as a Federal Deputy or Senator or any person remunerated by Vale, or any owner, controller or director of Vale, or any person listed in the prohibitions provided by the Federal Constitution, article 54, paragraphs I and II. There will be no impact on charges of default, provided that the debt payment occurs within five (5) business days as of the date of installing, under risk of, if in default, assuming all charges related to the assumptions set forth above for early expiration by default

In case of using the funds granted for purposes other than the one defined in the agreement, there should be early maturity and immediate termination of any disbursement and Vale will be subject, on the day following judicial or extrajudicial

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notice, to a 50% fine on the value released and not proved, added with appropriate fees.

None

<b>Nature and reasons for the operation / other relevant information</b>	<b>Available interest rate:</b> 4.5 % per year fixed in reais
<b>Name of related party</b>	Funding for the acquisition of national machinery and equipment to be used in Pier IV Project and deployment of a Mobile Cracking System, Transport and Sterile Disposal Banco Bradesco S.A.
<b>Date of transaction</b>	5/17/2012
<b>Amount (R\$)</b>	R\$547,057,963.98
<b>Current balance (R\$)</b>	R\$270,849,703.11
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Maturities by 9/24/2014
<b>Loan or any other debt</b>	NO
<b>Interest rate</b>	0
<b>Relationship with the Company</b>	Bradespar S.A., Vale indirect controlling shareholder, and Banco Bradesco S.A. are under common control.
<b>Purpose of the contract</b>	31 CDBs issued by Banco Bradesco S.A. and contracted by Vale and its subsidiaries in the period between 5/17/2012 to 12/27/2013. Financial investments at 97.36% of CDI (average of outstanding operations)
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant information</b>	
<b>Name of related party</b>	Banco Bradesco S.A. Grand Cayman Branch
<b>Date of transaction</b>	12/30/2013
<b>Amount (R\$)</b>	R\$ 48,023,300.00
<b>Current balance (R\$)</b>	R\$ 48,023,300.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Expiration date on 1/10/2014

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<b>Loan or any other debt</b>	NO
<b>Interest rate</b>	0
<b>Relationship with the Company</b>	Bradespar S.A., Vale indirect controlling shareholder, and Banco Bradesco S.A. are under common control.
<b>Purpose of the contract</b>	1 Investment in Time Deposits contracted by Vale and its controlled companies on 12/30/2013. Financial investment at 0.20% per year fixed in US dollars
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant information</b>	
<b>Name of related party</b>	Bradesco S.A., New York Branch
<b>Date of transaction</b>	09/26/2012
<b>Amount (R\$)</b>	R\$ 566,049,500.00
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Maturity on 01/02/2013 and 01/30/2013
<b>Loan or any other debt</b>	NO
<b>Interest rate</b>	0
<b>Relationship with the Company</b>	Bradespar S.A., Vale s indirect controlling company, and Banco Bradesco S.A., are under common control.
<b>Purpose of the contract</b>	3 Investments in Time Deposits contracted by Vale and its controlled companies between 09/26/2012 and 12/17/2012. Financial investment 0.44% per year (average of outstanding operations)
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant information</b>	

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<b>Name of related party</b>	Bradesco S.A., New York Branch
<b>Date of transaction</b>	8/30/2013
<b>Amount (R\$)</b>	R\$ 1,784,000,000.00
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Maturity on 10/11/2013 and 10/30/2013
<b>Loan or any other debt</b>	NO
<b>Interest rate</b>	0
<b>Relationship with the Company</b>	Bradespar S.A., Vale's indirect controlling company, and Banco Bradesco S.A., are under common control.
<b>Purpose of the contract</b>	5 Investments on <i>Time Deposits</i> contracted by Vale and its controlled companies between 8/30/2013 and 9/24/2013. Financial investment 0.39% per year (average of outstanding operations).
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant information</b>	-
<b>Name of related party</b>	Banco Bradesco S.A. p/ Vale Fertilizantes S.A.
<b>Date of transaction</b>	11/1/2011
<b>Amount (R\$)</b>	2,690,970.67
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2013
<b>Loan or any other debt</b>	No
<b>Interest rate</b>	0.00
<b>Relationship with the Company</b>	Company in Vale's controlling group
<b>Purpose of the contract</b>	Service to issue corporate international credit cards, debit cards and virtual vouchers for air tickets and hotel stays, to be used in institutional purchases and services as well as consumption items.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Contract may be terminated by any party by giving written notice to the other, without there being any right of claim, indemnification or compensation for the benefit of the party receiving the notice

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of termination, in following cases:

(i) Petition or declaration of bankruptcy or liquidation, or judicial or extrajudicial recovery by the other party;

(ii) In accordance with paragraph 11.4 of the Contract, occurrence of unforeseeable circumstance or *force majeure* which causes execution of services to be suspended for more than thirty (30) days.

(iii) In the event the fines on the other party reach 10% (ten percent) of the value indicated in paragraph 9.3 of the Contract.

Vale may, at their exclusive discretion, terminate this Contract by giving prior and express communication with Bradesco, at least thirty (30) days in advance, without there being any right to any claim, indemnification or compensation for whatever reason, in following cases:

(i) Non-compliance of any contractual obligations for more than thirty (30) days after receipt of the relevant notice by Vale; and

(ii) Assignment, subcontracting, and/or partial or total transfer of the undertaken obligations to third parties, or of the credits arising from this Contract, without prior and express authorization by Vale, except in case of Bradesco for its affiliates, controlling companies, subsidiaries or for any financial institution that is part of its group of companies.

Bradesco may, at their discretion, terminate this Contract by giving prior and express notice to Vale, with at least 30 (thirty) days in advance, without there being any right by Bradesco to any claim, indemnification or compensation for whatever reason, in following cases:

b) Arrears exceeding 60 (sixty) days;

c) Delays in providing information which endangers regular fulfillment of the obligations of this Contract and is not remedied within thirty (30) days after receipt of the relevant notice; and

d) Non-fulfillment of any of the obligations resulting from the Contract by Vale as a result of which Bradesco is directly unable to continue regular fulfillment of its contractual

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obligations, and which is not remedied within 30 (thirty) days after receipt of the relevant notice.

In the event of termination by any party, a cancellation fine of 10% (ten percent) will be imposed to the party causing termination over the value stated in paragraph



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9.3, as updated to variations of IGP-M/FGV (General Market Price Index), from the date of signature of this Contract until the date of actual payment of such fine, without detracting from eventual losses or damages.

**Nature and reasons for the operation / other relevant information**

-

**Name of related party**

Banco Bradesco Cartões S.A. e Banco Bankpar S.A.

**Date of transaction**

12/19/2013

**Amount (R\$)**

1,914,443,151.42

**Current balance (R\$)**

1,914,443,151.42

**Amount of related party**

Not applicable

**Duration**

12/31/2018

**Loan or any other debt**

No

**Interest rate**

0

**Relationship with the Company**

Bradespar S.A., Vale indirect controlling shareholder, and Banco Bradesco S.A. are under common control..

**Purpose of the contract**

Service to issue and manage corporate credit cards to be used in Brazil and abroad.

**Guaranties and insurance**

N/A

**Conditions of termination or expiration**

The Agreement may be terminated at any time and by either Party by written notice with at least one hundred eighty (180) days in advance, with no right to claim, indemnity, or compensation, for the benefit of the Party receiving the termination notice.

Additionally to circumstances provided for in the law, the Agreement may be terminated immediately and with no prior notice, under the following circumstances:

**a)- if either Party files for bankruptcy, judicial or extrajudicial recovery, is subject to a claim of bankruptcy or liquidation; and b)- if permits granted to Suppliers to provide/perform contracted services are revoked.**

Without prejudice to other conditions applicable to the termination and fine payment, when applicable, the Agreement may be terminated, upon prior notice at least sixty (60) days in advance, under the following circumstances:

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- a) payment delays for over sixty (60) days;
  
- b) delay to make available information that prejudice regular compliance with obligations assumed in the Agreement, that fails to be solved within thirty (30) days after receipt of the notice by the other Party in this sense; and
  
- c) breach of any of the obligations in this Agreement by the Parties, that results directly in impediment for regular compliance with obligations assumed in the Agreement, that fails to be solved within thirty (30) days after receipt of the notice by Suppliers the other Party in this sense.

**Nature and reasons for the operation / other relevant information**      The agreement is only in effect after 1/1/2014. The total value of the agreement is R\$ 2,166,037,729.23 related to all companies of Vale Group, and out of this, R\$ 1,914,443,151.42 refer to Vale.-

<b>Name of related party</b>	CBSS - Companhia Brasileira de Soluções e Serviços
<b>Date of transaction</b>	1/16/2014
<b>Amount (R\$)</b>	2,523,924,363.59
<b>Current balance (R\$)</b>	2,523,924,363.59
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2019
<b>Loan or any other debt</b>	NO
<b>Interest rate</b>	-0
<b>Relationship with the Company</b>	CBSS is a company controlled by Banco Bradesco S.A. Bradespar S.A., indirect controlling shareholder of Vale, and Banco Bradesco S.A. are under common control.
<b>Purpose of the contract</b>	Provision of issuance and management of legitimation documents known as refeição-convênio and/or alimentação-convênio (meal voucher and food voucher), Card to purchase Chirtsmas basket and Culture Card , as magnetic or chip cards, according to the available technology, hereinafter severally referred to, regardless of the type, as ALELO CARD(S) , by SUPPLIER to VALE ( SERVICES ) in Brazil, as well as availability, in such Catds, of the respective benefits, according to amounts in real predetermined by Vale.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	In case of unreasoned termination of the Agreement by Vale prior to the termination of the minimum five (5) year effective period, Vale will owe to Supplier, fine to be

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calculated as follows:

- i. up to 12 months: fine equivalent to 75% of the accrued value for commercial discount granted to Vale
  
- ii. 13th to 24th month: fine equivalent to 50% of the accrued value for commercial discount granted to Vale
  
- iii. 25th to 36th month: fine equivalent to 30% of the accrued value for commercial discount granted to Vale
  
- iv. 37th to 48th month: fine equivalent to 10% of the accrued value for commercial discount granted to Vale
  
- v. starting on the 49th month: exempted

Without prejudice to the satisfaction of other rights, Supplier may terminate this agreement with no reason prior to the effectiveness set forth in Clause 4.1 in the Agreement by means of 12 month prior notice, with no right to claims, indemnity, or compensation of benefits by VALE. If Supplier fails to comply with conditions set forth herein, it will be subject to a R\$ 1,000,000,000.00 fine.

Without prejudice to the satisfaction of other rights , either Party may terminate this Agreement by means of written notice to the other Party, with no right to claims, indemnity, or compensation for the benefit of the Party receiving the termination notice, under the following circumstances:

- (i) request of claim of bankruptcy, dissolution, liquidation, or judicial or extrajudicial recovery of the other Party;
  
- (ii) under the terms in Clause Twelve in the Agreement, in case of act of God or force majeure duly evidenced, that prevents performance of the object of the Agreement for more than thirty (30) days or, if evidenced, as being able to delay for undetermined time compliance with the Agreement, either party may choose to terminate, upon compliance with reciprocal outstanding obligations, to the date of the impediment;

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iii) breach of any provision of the instrument or the laws and regulations under which it is subject to, if not remedied within thirty (30) days from the date of notification receipt sent by the non-defaulting party to the infringing party, or within a time as agreed by the parties at the time;

iv) By Vale, if the Supplier fails to comply with the terms in the Vendors Code of Behavior, when applicable, and fail to share principles and values in Vale's Sustainable Development Policy and Human Rights Policy, which documents are part of this agreement;

(v) in case of proven fraud or willingness by the infringing Party.

In case of termination motivated by either Party, under item (iii) above, the Party giving cause to it will not be subject to the payment of fine for whatever title, without prejudice to satisfying the other Parties' rights.

In the event of termination of the Contract for any reason, ALELO CARDS following Meal, Food, and Christmas models, delivered to Vale and the respective current balances of benefits, will be valid for use during the period of the card equal to ninety (90) calendar days after the effective termination of the Agreement and, after that period, the ALELO CARDS will automatically be canceled, and any respective benefits will be returned to Vale within sixty days. Additionally, balances available in the ALELO CARDS in the Culture Card model will undetermined validity.

**Nature and reasons for the operation / other relevant information**

The agreement is only in effect after 1/1/2014. The total value of the agreement is R\$ 3,389,091,923.56 related to all companies of Vale Group, and out of this, R\$ 2,523,924,363.59 refer to Vale.-

<b>Name of related party</b>	Vale Energia S.A.
<b>Date of transaction</b>	1/01/2011
<b>Amount (R\$)</b>	R\$ 149,434,495.80
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2011
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Power Supply. In 2008, 12 short-term power supply agreements were entered into at the market price, to cover demand of Vale units.
<b>Date of transaction</b>	01/01/2011



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<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant information</b>	
<b>Name of related party</b>	Vale Energia S.A.
<b>Transaction Date</b>	1/01/2013
<b>Amount (R\$)</b>	R\$ 168,705,580.86
<b>Current balance (R\$)</b>	R\$ 0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	1 year, by 12/31/2013
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.000000
<b>Relationship with the Company</b>	Controlled entity
<b>Purpose of the contract</b>	Power supply agreement by Vale Energia to Vale S.A., with no annual adjustment
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Not applicable
<b>Nature and reasons for the operation / other relevant information</b>	Amount in the transaction with no adjustment
<b>Name of related party</b>	Vale Energia S.A.
<b>Transaction Date</b>	4/01/2013
<b>Amount (R\$)</b>	R\$ 6,415,178.30
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	4 months, by 7/31/2013
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.000000
<b>Relationship with the Company</b>	Controlled entity

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<b>Purpose of the contract</b>	Power supply agreement by Vale Energia to Vale S.A., with no annual adjustment
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Not applicable
<b>Nature and reasons for the operation / other relevant information</b>	Amount in the transaction with no adjustment
<b>Name of related party</b>	Epícares Empreendimentos e Participações S.A.
<b>Transaction Date</b>	5/1/2013
<b>Amount (R\$)</b>	R\$ 20,686,571.00
<b>Current balance (R\$)</b>	R\$ 0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	8 months, by 12/31/2013
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.000000
<b>Relationship with the Company</b>	Controlled entity
<b>Purpose of the contract</b>	Power supply agreement by Epícares à Vale, with no annual adjustment. This is a power <i>take</i> by Epícares, according to its share in the Capim Branco Power Consortium.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Not applicable
<b>Nature and reasons for the operation / other relevant information</b>	Amount in the transaction with no adjustment
<b>Name of related party</b>	Vale Óleo e Gás S.A.
<b>Transaction Date</b>	3/16/2012
<b>Amount (R\$)</b>	R\$ 35,356,297.79
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	11 months, starting on 2/1/2012 and ending on 12/31/2012. The agreement was amended on 1/10/2013 for another 180 days, that is, until 6/30/2013. This agreement has terminated already.
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.000000

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<b>Relationship with the Company</b>	Controlled entity
<b>Purpose of the contract</b>	The purpose of this agreement is the provision of technical support services by Vale Óleo e Gás, in Brazil and abroad, technical economic assessment and risks on oil and gas assets as well as areas with potential for exploitation and exploration, accompaniment of E&P activities, as well as assistance and representation of Vale before its partners, committees, and managing bodies, in oil and gas consortiums, including preparation, approval, and control of budget estimates, schedules, and compliance with environmental, health, and security requirements, checking and release of cash calls and service metrics.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Not applicable
<b>Nature and reasons for the operation / other relevant information</b>	
<b>Name of related party</b>	Companhia Portuária Baía de Sepetiba (CPBS)
<b>Date of transaction</b>	1/01/2004
<b>Amount (R\$)</b>	R\$ 402,133,814.50
<b>Current balance (R\$)</b>	R\$0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	By 2022. Contract will be automatically renewed for equal periods, provided there is no order to the contrary from any of the parties until 24 months before the date scheduled to close contract.
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Providing operating services and iron ore shipping. Contract purpose is to ensure the use of port infrastructure and loading capacity of iron ore for an annual quantity of 11,000,000 t (eleven million tons).
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	The contract may be terminated by operation of law, at the discretion of the innocent party, by simple written communication addressed by the interested party to the other party in any of the following cases: <ul style="list-style-type: none"> <li>• Bankruptcy, liquidation agreement, dissolution or liquidation, declared or approved;</li> <li>• Default of obligation established in any clause, Item or sub item of the contract, not resolved;</li> </ul>



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- Suspension or termination of services and / or the occurrence of unforeseeable circumstances or *force majeure*, for more than sixty (60) calendar days.

In the event of contract termination, CPBS will provide Vale its whole cargo/ property which is in the TERMINAL and all documents owned by Vale in its possession. After the release of cargo and documents, Vale will pay all expenses and service costs, and perhaps not yet settled, offsetting any claims and arranging the withdrawal of the product within 30 (thirty) days, any failing of which will be deemed to be abandoned pursuant to the terms of the Civil Code.

In the event of default, a letter identifying the breach of contract should be presented to the other party, which will have fifteen (15) days to remedy the default. If after this time the default has not been remedied, the aggrieved party may terminate this contract by operation of law, subject to judicial collection, corresponding to the obligations arising from this;

In the event of suspension of service determined by Vale or contract termination, the following will be owed to CPBS: (i) the amounts pending payment for that portion of services already performed until the date of suspension, ( ii) the reimbursement of costs resulting from this suspension or contract termination, (iii) the compensation for any burden caused by Vale to CPBS provided for herein.

- For purposes of this item, CPBS may offset any debts they have with respect to the claims that Vale might have, and use this contract as an extrajudicial execution order for the recovery of any sums due, regarded now as certain net debt in the event of default by Vale. It will be Vale's responsibility to cover all costs that CPBS has to incur due to the collection, judicial or extrajudicial, of the credits that might be owed in relation to the services.

### **Nature and reasons for the operation / other relevant information**

<b>Name of related party</b>	Ferrovía Centro Atlântica S.A., Vale Fertilizantes, Ultrafertil e Vale S.A.
<b>Date of transaction</b>	12/30/2002

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<b>Amount (R\$)</b>	R\$ 91,809,667.15
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2011 5/11/2011 8/15/2011
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with issuer</b>	Subsidiary
<b>Purpose of the contract</b>	<p>Three contracts:</p> <ul style="list-style-type: none"> <li>• Provision of railroad transportation services of phosphate rocks, sulfur, and fertilizers. The balance refers to advancement of freight. (date of transaction 12/30/002).</li> <li>• Provision of goods unloading services from ships, stocking in warehouses, loading and weighing cars and trucks and railroad transportation (date of transaction 09/05/2011).</li> <li>• Provision of railroad transportation services (date of transaction 08/16/2010).</li> </ul>
<b>Guaranties and insurance</b>	The contracts foresee indemnity in the event of theft, loss or damage of goods and will be treated in specific process and if they are due, they will be paid up to 60 (sixty) days after receiving the request for compensation. The price to be considered will be the one declared in the RECEIPT at the time of the transportation.
<b>Conditions of termination or expiration</b>	<p>This agreement may be terminated by any of the Parties, regardless of notice, communication or judicial summons or extrajudicial communication, in the following events:</p> <ul style="list-style-type: none"> <li>a) Petition or declaration of insolvency, bankruptcy or judicial or extrajudicial recovery of the other Party;</li> <li>b) Suspension/revocation of Contractor's concession to explore public cargo railroad transportation service, at any time;</li> <li>c) Non-fulfillment of any of the obligations resulting from the Contract by Vale as a result of which the CONTRACTED PARTY is directly unable to continue regular fulfillment of its contractual obligations, and which is not remedied within 30 (thirty) days after receipt of the relevant notice by the CONTRACTED PARTY.- The agreements can be terminated ipso jure in case of not complying</li> </ul>

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with any of its conditions, as well as in the case of bankruptcy or judicial or extrajudicial recovery, under the provisions or Act 11.101, of 02.09.2005, of any of the contracting parties without need of any judicial or extrajudicial notification for this purpose..

This contract may be terminated by either PARTY, without any charge, provided it is done in writing with at least 30 (thirty) days in advance, of the intended termination date. If that is the case, no indemnification or compensation for whatever reason may be paid, not even for loss or damage.

**Nature and reasons for the operation  
/ other relevant information**

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<b>Name of related party</b>	Ferrovias Centro Atlântica S.A.
<b>Date of transaction</b>	12/30/2002
<b>Amount (R\$)</b>	69,975,303.05
<b>Current balance (R\$)</b>	12,364,664.76
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2017
<b>Loan or other type of debt</b>	No
<b>Interest rate</b>	0.00
<b>Relationship with issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Provision of cargo railroad services
<b>Guaranties and insurance</b>	Take or pay for annual contracted volumes
<b>Conditions of termination or expiration</b>	The Contract may be lawfully terminated regardless of judicial or extrajudicial notice or notification, under the following circumstances:

a) Bankruptcy and composition with creditors, judicial or extrajudicial insolvency is requested or ordered to either party;

b) Suspension/revocation of the concession to the Contracted Party, at any time, to explore cargo railroad public services;

c) Failure to comply with conditions and/or obligations set forth herein, if the infringing or default party fails to solve the non-compliance in full within thirty days from the notification by the prejudiced party, to be given in writing.

**Nature and reasons for the operation  
/ other relevant information**



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<b>Name of related party</b>	Ferrovias Centro Atlântica S.A
<b>Date of transaction</b>	12/28/2012
<b>Amount (R\$)</b>	0
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	By the end of the concession of any of the railroads
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0
<b>Relationship with issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Railroad Infrastructure Shared Use Operational Agreement, as Shared Traffic.
<b>Guaranties and insurance</b>	Not applicable
<b>Conditions of termination or expiration</b>	The Agreement could be terminated by either party, and is automatically ended in 60 days upon receipt of written communication by the terminating party.
<b>Nature and reasons for the operation / other relevant information</b>	<p>The goals of the Operational Agreement are:</p> <p>(I) Regulate and standardize, upon definition of technical, operational, and administrative procedures, performance of the following activities:</p> <p>a) Shared traffic of goods in cargo trains;</p> <p>b) Exchange of wagons and locomotives;</p> <p>c) Repairs on wagons, locomotives, and permanent roads.</p> <p>(II) Simplify regulations and procedures related to shared traffic and exchange of moving materials, compliant with the specificities of the Parties, through operational and administration unity at exchange stations, where the presence of moving material in traffic should be minimized, without prejudice to circulation safety conditions.</p>
<b>Name of related party</b>	Ferrovias Centro Atlântica S.A. and e VLI Multimodal S.A.

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<b>Date of transaction</b>	12/7/2010
<b>Amount (R\$)</b>	R\$ 299,474,000.00
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	Could not be assessed.
<b>Duration</b>	5 years and 5 months until termination of subconcession
<b>Loan or other type of debt</b>	No
<b>Interest rate</b>	0
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Two contracts:

Providing railway transportation services of various products in containers owned by the CONTRACTED PARTY and/or the CONTRACTING PARTY, by the CONTRACTED PARTY to the CONTRACTING PARTY, along pre-established routes, jointly agreed upon between the PARTIES (Annex 1), exclusively on railroad flatcars.

(transaction date 10/1/2011).- purpose of the contract is the provision of railroad transportation services (date of transaction 12/7/2010)

**Guaranties and insurance** Both contracts specify compensations for theft, loss, or damage of the goods that will be handled in a specific process and, in the case of any debt, they will be settled within 60 days after receipt of the compensation request. The price to be considered will be that declared in the invoice at the time of carriage.

**Conditions of termination or expiration** Contracts may be terminated by operation of law, regardless of notice, communication or judicial summons or extrajudicial communication, in the event of non-observance of its terms, bankruptcy or judicial or extrajudicial recovery of either party.

- Contract may be terminated by any party by giving written notice to the other, without there being any right of claim, indemnification or compensation for the benefit of the Party receiving the notice of termination, in following cases::

(i) Non-compliance of any contractual obligations by the other party, except when non-compliance is solved within sixty (60) days after receipt of the relevant notice by the non-default party;

(ii) Petition or declaration of bankruptcy or liquidation, or judicial or extrajudicial recovery by the other party; and

(iii) In the event of an act of God or force majeure regularly proved, that comes to stop the execution of this Contract for more than six (6) months.

**Nature and reasons for the operation  
/ other relevant information** -

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<b>Name of related party</b>	Ferrovía Centro Atlântica S/A
<b>Date of transaction</b>	3/15/2011
<b>Amount (R\$)</b>	R\$ 3,300,000.00
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	FCA paid the Loan, duly adjusted, on 6/06/2011
<b>Loan or other type of debt</b>	Yes
<b>Interest rate</b>	0
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Financial Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>Should FCA fail to comply with any of the obligations in the Agreement, VALE may automatically enforce it by the whole value of the Loan (principal and interest due) added with contractual fine (1% monthly interest rate, incurring from the default to the date of effective payment and 2% compensatory contractual fine incurring on the due balance, including principal and respective financial costs).</p> <p>94% of Interbank Deposit Certificate (CDI)</p> <p>FCA is entitled to make the early payment of the amount due, as whole or in part, including the principal and interest calculated from March 15, 2011, to the date of effective payment. FCA should notify its intention to make an early payment at least three (3) days in advance.</p>
<b>Nature and reasons for the operation / other relevant information</b>	Agreement amended on 3/31/2011.
<b>Name of related party</b>	Ferrovía Centro Atlântica S/A
<b>Date of transaction</b>	3/16/2011
<b>Amount (R\$)</b>	R\$ 5,000,000.00
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	FCA paid the Loan, duly adjusted, on 6/06/2011.
<b>Loan or other type of debt</b>	Yes



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<b>Interest rate</b>	0
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Financial Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>Should FCA fail to comply with any of the obligations in the Agreement, VALE may automatically enforce it by the whole value of the Loan (principal and interest due) added with contractual fine (1% monthly interest rate, incurring from the default to the date of effective payment and 2% compensatory contractual fine, incurring on the due balance, including principal and respective financial costs).</p> <p>Rate: 94% of Interbank Deposit Certificate (CDI)</p> <p>FCA is entitled to make the early payment of the amount due, as whole or in part, including the principal and interest calculated from March 16, 2011, to the date of effective payment. FCA should notify its intention to make an early payment at least three (3) days in advance.</p>
<b>Nature and reasons for the operation / other relevant information</b>	3/31/2011 (amendment)
<b>Name of related party</b>	Ferrovias Centro Atlântica S/A
<b>Date of transaction</b>	3/18/2011 (Original Agreement) e 3/31/2011 (Amendment).
<b>Amount (R\$)</b>	R\$ 10,350,000.00
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	FCA paid the Loan, duly adjusted, on 6/06/2011.
<b>Loan or other type of debt</b>	Financial Loan
<b>Interest rate</b>	94% of Interbank Deposit Certificate (CDI)
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Financial Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>Should FCA fail to comply with any of the obligations in the Agreement, VALE may automatically enforce it by the whole value of the Loan (principal and interest due) added with contractual fine (1% monthly interest rate, incurring from the default to the date of effective payment and 2% compensatory contractual fine, incurring on the due balance, including principal and respective financial costs).</p>
<b>Nature and reasons for the operation /</b>	FCA is entitled to make the early payment of the amount due, as whole or in part,



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<b>other relevant information</b>	including the principal and interest calculated from March 18, 2011, to the date of effective payment. FCA should notify its intention to make an early payment at least three (3) days in advance.
<b>Name of related party</b>	Ferrovias Centro Atlântica S.A. , Companhia Hispano-brasileira de Pelotização HISPANOBRAS, and Vale S.A.
<b>Relationship with the Company</b>	Subsidiaries and affiliates
<b>Date of transaction</b>	1/01/2010
<b>Purpose of the contract</b>	Supply railroad transport service
<b>Business amount (R\$)</b>	R\$ 33,987,872.00
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	assessed\$ 33,987,872.00
<b>Guaranties and insurance</b>	The contract foresees indemnity in the event of theft, loss or damage of goods and will be treated in specific process and if they are due, they will be paid up to 60 (sixty) days after receiving the request for compensation. The price to be considered will be the one declared in the invoice at the time of the transportation.
<b>Duration</b>	5 (five) years.
<b>Conditions of termination or expiration</b>	This agreement may be terminated by any of the parties, by means of a written notification to the other party. The Party by reason of which the Resolution was requested, will have no right to any claim, indemnity or compensation in the following cases:  (iii) If the other party fails to fulfill any of the obligations foreseen by this Contract, except when the failure can be corrected and if the defaulting party corrects it within 5 (five) days after receiving the corresponding written notification;  (iv) Petition or declaration of insolvency, bankruptcy or judicial or extrajudicial recovery of the other party  (iii) In the event of an act of God or force majeure regularly proved, that comes to stop the execution of this Contract for more than 30 (thirty) days.
<b>Loan or other type of debt</b>	No
<b>Nature and reasons for the operation / other relevant information</b>	-
<b>Rate of interest</b>	0

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<b>Name of related party</b>	Ferrovía Centro Atlântica S.A.
<b>Relationship with the Company</b>	Subsidiary
<b>Date of transaction</b>	1/01/2009
<b>Purpose of the contract</b>	<p>This refers to 4 contracts:</p> <ul style="list-style-type: none"><li>• Supply railroad transport service (date of transaction 01/01/2010).</li><li>• Provision of Railroad Transportation Service (date of transaction 11/11/2010).</li><li>• Provision of Railroad Transportation Service (date of transaction 01/01/2009).</li><li>• Provision of Railroad Transportation Service (date of transaction 4/30/2010).</li></ul>
<b>Business amount (R\$)</b>	R\$ 106,310,000.00
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	Could not be assessed
<b>Guaranties and insurance</b>	The contracts foresee indemnity in the event of theft, loss or damage of goods and will be treated in specific process and if they are due, they will be paid up to 60 (sixty) days after receiving the request for compensation. The price to be considered will be the one declared in the invoice at the time of the transportation
<b>Duration</b>	5 (five) years 2 (two) years 4 (four) years 9 (nine) months
<b>Conditions of termination or expiration</b>	<p>These agreements may be terminated by any of the parties, through written notification to the other party. The party by reason of which the Resolution was requested, will have no right to any claim, indemnity or compensation in the following cases:</p> <p>(i) If the other party fails to fulfill any of the obligations foreseen by this Contract, except when the failure can be corrected and if the defaulting party corrects it within 5 (five) days after receiving the corresponding written notification;</p> <p>(ii) Petition or declaration of insolvency, bankruptcy or judicial or extrajudicial recovery of the other Party;</p> <p>(iii) In the event of an act of God or force majeure regularly proved, that comes to stop the execution of this Contract for more than 90 (ninety) days.</p>

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Without prejudice of its other rights, Central Atlantic Railroad can terminate this

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Contract at its exclusive judgment, through a previous and written notification of 30 (thirty) days given to Central Atlantic Railroad, without Central Atlantic Railroad having the right to any claim, indemnity or compensation whatsoever,

in any of the following cases:

(i) If Central Atlantic Railroad fails to fulfill any of the obligations foreseen by this Contract, that have to be corrected within 30 (thirty) days after receiving Vale's written notification for this purpose; and

(ii) assignment, outsourcing and/or partial or total transfer for third parties of assumed obligations, or of the credits deriving from this contract, without previous and written authorization from Vale S.A. Without prejudice of its other rights, Central Atlantic Railroad can terminate this Contract at its exclusive judgment, through a previous and written notification of 30 (thirty) days given to the Company, without the Company having the right to any claim, indemnity or compensation whatsoever, in any of the following cases:

(i) delay in the payments for a period higher than 90 (ninety) days;

(ii) delay in the availability of information that compromises the regular fulfillment of the obligations assumed in the contract, that have to be corrected within 30 (thirty) days after receiving the Company's notification for this purpose; and

(iii) if Vale S.A. fails to fulfill any of the obligations of this contract and as a consequence the Company cannot continue with the regular fulfillment of its contract obligations, and is not corrected within 30 (thirty) days after receiving the Company's notification for this purpose ..

<b>Loan or other type of debt</b>	No
<b>Nature and reasons for the operation / other relevant information</b>	N/A
<b>Rate of interest</b>	0
<b>Name of related party</b>	Ferrovias Centro Atlântica S.A. and Log-in Logística Intermodal S.A.
<b>Date of transaction</b>	3/1/2007
<b>Amount (R\$)</b>	Not applicable

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<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	10 years relationship with LOG-IN terminated on 10/01/11, considering assignment of the contract from LOG-IN to VLI MULTIMODAL
<b>Loan or other type of debt</b>	No
<b>Rate of interest</b>	0
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Providing railway transportation services of various products in containers owned by the CONTRACTED PARTY and/or the CONTRACTING PARTY, by the CONTRACTED PARTY to the CONTRACTING PARTY, along pre-established routes, jointly agreed upon between the parties (Annex 1), exclusively on railroad flatcars
<b>Guaranties and insurance</b>	Contract specifies compensations for theft, loss, or damage of the goods that will be handled in a specific process and, in the case of any debt, they will be settled within 60 (sixty) days after receipt of the compensation request. The price to be considered will be that declared in the invoice at the time of carriage.
<b>Conditions of termination or expiration</b>	Contract may be terminated by operation of law, regardless of notice, communication or judicial summons or extrajudicial communication, in the event of non-observance of its terms, bankruptcy or judicial or extrajudicial recovery of either PARTY.
<b>Nature and reasons for the operation / other relevant information</b>	-
<b>Name of related party</b>	VLI Multimodal S.A. e Vale S.A.
<b>Date of transaction</b>	12/7/2010
<b>Amount (R\$)</b>	R\$ 30,479,000.00
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	6/30/2027
<b>Loan or other type of debt</b>	No
<b>Rate of interest</b>	0
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Providing railway transportation services
<b>Guaranties and insurance</b>	Contract specifies compensations for theft, loss, or damage of the goods that will be handled in a specific process and, in the case of any debt, they will be settled within 60 days after receipt of the compensation request. The price to be considered will be that declared in the fiscal note at the time of carriage.

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**Conditions of termination or expiration**

Contract may be terminated by any party by giving written notice to the other, without there being any right of claim, indemnification or compensation for the benefit of the party receiving the notice of termination, in following cases:

(i) Non-compliance of any contractual obligations by the other Party, except when non-compliance is solved within sixty (60) days after receipt of the relevant notice by the non-default party;

(ii) Petition or declaration of bankruptcy or liquidation, or judicial or extrajudicial recovery by the other party; and

(iii) In the event of an act of God or force majeure regularly proved, that comes to stop the execution of this Contract for more than six (6) months

**Nature and reasons for the operation / other relevant information**

-

**Name of related party**

Vale S.A., VLI Multimodal S.A., FCA S.A. e FNS S.A.

**Date of transaction**

8/9/2013

**Amount (R\$)**

0.00

**Current balance (R\$)**

Not applicable

**Amount of related party**

Not applicable

**Duration**

Undetermined

**Loan or other type of debt**

NO

**Rate of interest**

0.000000

**Relationship with the Company**

Subsidiary

**Purpose of the contract**

Buy-out option subject to future event: Vale S.A will pay VLI Multimodal S.A (in case of exercise of buy-out), prices determined by the residual value booked by VLI Multimodal S.A, considering maintenance and improvements, compliant with the appropriate depreciation.

In case of characterization of one or more assets as revertible assets:

1- the price to be paid for the assets will be the indemnity paid by the Granting Authority to Vale S.A, safeguarding FCA and FNS, is entitled to receive a value that is not lower than the nominal value originally paid for each asset;



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2- should the indemnity paid by the granting authority be lower than the price paid by Vale S.A to FCA and FNS, this should return the difference to Vale S.A., under the terms in item i above.

### **Guaranties and insurance**

Not applicable

### **Conditions of termination or expiration**

No fine is provided for in case of termination

Note: Option linked to the effectiveness of the Cargo Railroad Transportation Services and Related Services Agreement entered by and between Vale S.A e VLI Multimodal S.A on 12/7/2010.

FCA and FNS are the owners of wagons and locomotives ( Assets ), required for the provision of services under the Transportation Agreement, reason why FCA and FNS granted the Assets to Vale, exclusively and irretrievably, for the entire effectiveness of the Transportation Agreement.

Vale may acquire part or all the Assets, upon one of the following circumstances:

a) Determination by the Granting Authority in this sense;

b) Termination of Concession Agreements for any reason;

c) Termination of the Transportation Agreement for any reason;

d) File or order of insolvency, bankruptcy, or judicial or extrajudicial recovery for FCA and/or FNS, by VLI Multimodal;

e) Non-compliance by VLI Multimodal, FCA and/or FNS with any obligation set forth in the AGREEMENT, except when it solve the non-compliance within 15 calendar days upon receipt of written notice in this sense provided by VALE;

f) Existence of third-party claim, in judicial or administrative procedure, incurring on one or more Assets or creating any encumbrance, that is not cured by VLI Multimodal, FCA, and FNS in twenty days; and

g) If VLI Multimodal, FCA, and FNS, for any reason, remove one or more Assets from Vale s possession, without its express written agreement by Vale and ANTT, if that is not cured by VLI

Multimodal, FCA, and FNS in 20 days.

**Nature and reasons for the operation  
/ other relevant information**

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<b>Name of related party</b>	VLI Multimodal S.A. e Vale S.A.
<b>Date of transaction</b>	8/9/2013
<b>Amount (R\$)</b>	R\$ 0.00
<b>Current balance (R\$)</b>	576,553,577.94
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	6/29/2027
<b>Loan or other type of debt</b>	No
<b>Rate of interest</b>	0
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Providing railway transportation services
<b>Guaranties and insurance</b>	There is no fixed amount determined for this service agreement. Thus, the amount related to this agreement in fiscal year ending on December 31, 2013 is R\$ 576,553,577.94, while the estimated balance for the agreement on the termination date on July 29, 2027, carried to today's value is R\$ 7,219,607,795.50 Contract specifies compensations for theft, loss, or damage of the goods that will be handled in a specific process and, in the case of any debt, they will be settled within 60 days after receipt of the compensation request. The price to be considered will be that declared in the fiscal note at the time of carriage.
<b>Conditions of termination or expiration</b>	<p>Contract may be terminated by any party by giving written notice to the other, without there being any right of claim, indemnification or compensation for the benefit of the party receiving the notice of termination, in following cases::</p> <p>(i) Non-compliance of any contractual obligations by the other Party, except when non-compliance is solved within sixty (60) days after receipt of the relevant notice by the non-default party;</p> <p>(ii) Petition or declaration of bankruptcy or liquidation, or judicial or extrajudicial recovery by the other party; and</p> <p>(iii) In the event of an act of God or force majeure regularly proved, that comes to stop the execution of this Contract for more than one hundred eight (180) calendar days;</p> <p>(iv) change in shareholding control, direct or indirect, of either party, under the terms in item 16.2.1 in the agreement.</p>
<b>Nature and reasons for the operation / other relevant information</b>	

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<b>Name of related party</b>	Ferrovía Norte Sul S.A.( through Estrada de Ferro Carajás EFC)
<b>Date of transaction</b>	12/20/20012
<b>Amount (R\$)</b>	0.00
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	None
<b>Duration</b>	By the end of the concession of any of the railroads
<b>Loan or other type of debt</b>	No
<b>Rate of interest</b>	0
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Specific Contractual Transaction, with the objective (i) to carry out specific transactions relating to mutual traffic and/or the right of passage; (ii) to refine global operational efficiency for railroad transportation and better conditions in general for passengers, in order to allow for increased railroad transportation between parties; (iii) to maintain a heightened relationship between parties, in order to increase service of the demands of transportation of cargo in its areas of influence, producing economic development in the regions it attends, all in accordance with our contracts, as well as in observance of the applicable technical norms and regulations; and (iv) to consider the junction between the two railroads and the Açailândia station, in the state of Maranhão, operated by Vale S.A., where we will make the exchange between railroad stations with dispatched cargo in mutual traffic.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Contract may be terminated by giving notice, communication or judicial summons or extrajudicial communication within 30 (thirty) days, only in the event of non-compliance by either party with any clause, provided it is not remedied within 90 (ninety) days by the non-complying party, after receiving prior written notice identifying the non-compliance, with acknowledgement of receipt.
<b>Nature and reasons for the operation / other relevant information</b>	-
<b>Name of related party</b>	Ferrovía Norte Sul S.A.( through Estrada de Ferro Carajás EFC)
<b>Date of transaction</b>	12/19/2008

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<b>Amount (R\$)</b>	R\$ 24,181,000.00
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	None
<b>Duration</b>	30 (thirty) years or termination of the subconcession
<b>Loan or other type of debt</b>	No
<b>Rate of interest</b>	0
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Specific Contractual Transaction, with the objective (i) to carry out specific transactions relating to mutual traffic and/or the right of passage; (ii) to refine global operational efficiency for railroad transportation and better conditions in general for passengers, in order to allow for increased railroad transportation between parties; (iii) to maintain a heightened relationship between parties, in order to increase service of the demands of transportation of cargo in its areas of influence, producing economic development in the regions it attends, all in accordance with our contracts, as well as in observance of the applicable technical norms and regulations; and (iv) to consider the junction between the two railroads and the Açailândia station, in the state of Maranhão, operated by Vale S.A., where we will make the exchange between railroad stations with dispatched cargo in mutual traffic.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Contract may be terminated by giving notice, communication or judicial summons or extrajudicial communication within 30 (thirty) days, only in the event of non-compliance by either party with any clause, provided it is not remedied within 90 (ninety) days by the non-complying party, after receiving prior written notice identifying the non-compliance, with acknowledgement of receipt.
<b>Nature and reasons for the operation / other relevant information</b>	-
<b>Name of related party</b>	Vale Manganês S.A. 46000001816
<b>Date of transaction</b>	9/1/2008
<b>Amount (R\$)</b>	52,343,509.14
<b>Current balance (R\$)</b>	47,943,468.49
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2014
<b>Loan or other type of debt</b>	NO
<b>Rate of interest</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	<ul style="list-style-type: none"> <li>• Handling of manganese ore dispatched from and to Vale Manganês by Vitória a Minas Railroad and Centro-Atlântica Railway (date of transaction 5/01/2010).</li> </ul>

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<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	This contract may be terminated by either party without any charge, provided it is done in writing with at least 60 (sixty) days in advance of the intended termination date. If that is the case, no indemnity or compensation whatsoever may be paid, not even for loss or damage.
<b>Nature and reasons for the operation / other relevant information</b>	
<b>Name of related party</b>	Vale International S.A.
<b>Date of transaction</b>	1/13/2006
<b>Amount (R\$)</b>	R\$ 33,139,439,500.00
<b>Current balance (R\$)</b>	R\$ 0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/21/2026
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	2.69%
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Export prepayment
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Prepayment - The exporter may, by notice in writing at least two (2) business days for the Importer, elect to prepay any amount, in whole or in part, with accrued interest.
<b>Nature and reasons for the operation / other relevant information</b>	Applicable interest rate: 2.69% per year (average rate) This is an export prepayment to cover cash needs. The Company is the debtor in this transaction.

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<b>Name of related party</b>	Vale International S.A.
<b>Date of transaction</b>	1/13/2006
<b>Amount (R\$)</b>	R\$ 34,909,425,200.00
<b>Existing balance (R\$) (12/31/2012)</b>	R\$ 34,909,425,200.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/21/2026
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	2.69%
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Pre-payment on exporting
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Early Payment The exporting agent, upon prior written notice at least two days in advance to the Importing agent, choose to pay in advance any amount, as a whole or in part, with accrued interest.
<b>Nature and reasons for the operation / other relevant information</b>	Available interest rate: 2.69 % per year, in average, fixed in US dollars. This is Pre-payment for exporting to cover the need of cash flow. The Company is the debtor in this operation.
<b>Date of transaction</b>	10/10/2001
<b>Amount (R\$)</b>	R\$ 42,161,285.64
<b>Current balance (R\$)</b>	<b>R\$ 24,588,000.00</b>
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	20 years ( by 10/18/2021)
<b>Loan or other type of debt</b>	No
	0
<b>Relationship with the Company</b>	Subsidiary, joint control
<b>Purpose of the contract</b>	Leasing
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	This contract may be terminated: <ul style="list-style-type: none"> <li>• due to act of God or force majeure under the terms in article 1058 and sole paragraph in the Civil Code;</li> </ul>

- upon mutual agreement;
- upon termination by either party due to non-compliance by the other party;
- due to bankruptcy or composition with creditors by either party.

**Nature and reasons for the operation / other relevant Information**

<b>Name of related party</b>	Companhia Hispano Brasileira de Pelotização - Hispanobras
<b>Date of transaction</b>	5/16/2012
<b>Amount (R\$)</b>	R\$ 64,302,472.18
<b>Current balance (R\$)</b>	R\$ 40,271,727.22
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Three years with automatic renewal
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Affiliate
<b>Purpose of the contract</b>	Asset leasing contract. Vale leased Hispanobras pellet plant for one fixed payment plus another payment variable with assets performance. Agreement term is for 3 years, successively renewable for the same period.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Any of the parties may choose to terminate the Lease after the first three years, as long as the other party receives a written notice one year before the end of the referred period.
<b>Nature and reasons for the operation / other relevant Information</b>	Lease of industrial assets is part of the new business model chosen by shareholders as it allows capturing synergies and reducing ineffectiveness, ensuring better profitability and return to shareholders.

<b>Name of related party</b>	Companhia Nipo-Brasileira de Pelotização - Nibrasco
<b>Date of transaction</b>	4/30/2008



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<b>Amount (R\$)</b>	R\$ 126,703,646.95
<b>Current balance (R\$)</b>	R\$ 0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/30/2016
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.00000
<b>Relationship with the Company</b>	Affiliate
<b>Purpose of the contract</b>	Contract for leasing assets. Vale leased 2 pellet plants of Nibrasco, upon payment of a fixed portion and variable portion depending on the performance of the assets. Contract term is for 3 years, renewable successively for the same period.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Parties must send written notice to the other party to terminate the lease.
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	Companhia Italo-Brasileira de Pelotização - Itabrasco
<b>Date of transaction</b>	09/30/2008
<b>Amount (R\$)</b>	R\$ 58,941,829.56
<b>Current balance (R\$)</b>	R\$ 1,842,418.80
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Until 2018
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Affiliate
<b>Purpose of the contract</b>	Contract for leasing assets. Vale leased the pellet plant of Itabrasco, upon payment of a fixed portion and variable portion depending on the performance of the assets.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Either party will have the right to terminate the lease after the initial period of three years, provided that they send to the other party written notice at least a year before the lease expires.

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The parties may also, during the eighth year, review the conditions agreed in this contract in order to decide whether or not this will be renewed.

### Nature and reasons for the operation / other relevant information

<b>Name of related party</b>	Ferrovias Centro Atlântica S/A
<b>Date of transaction</b>	3/18/2011
<b>Amount (R\$)</b>	R\$ 10,350,000.00
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	FCA paid the Loan, duly adjusted, on 6/06/2011.
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	0.00000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Financial Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Should FCA fail to comply with any of the obligations in the Agreement, VALE may automatically enforce it by the whole value of the Loan (principal and interest due) added with contractual fine (1% monthly interest rate, incurring from the default to the date of effective payment and 2% compensatory contractual fine, incurring on the due balance, including principal and respective financial costs).  Rate: 94% of Interbank Deposit Certificate (CDI)  FCA is entitled to make the early payment of the amount due, as whole or in part, including the principal and interest calculated from March 18, 2011, to the date of effective payment. FCA should notify its intention to make an early payment at least three (3) days in advance.

### Nature and reasons for the operation / other relevant information

<b>Name of related party</b>	3/31/2011 (Amendment)
<b>Date of transaction</b>	3/21/2011
<b>Amount (R \$)</b>	R\$ 1,200,000.00
<b>Current balance (R \$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	FCA paid the Loan, duly adjusted, on 6/06/2011.



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<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Financial Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>Should FCA fail to comply with any of the obligations in the Agreement, VALE may automatically enforce it by the whole value of the Loan (principal and interest due) added with contractual fine (1% monthly interest rate, incurring from the default to the date of effective payment and 2% compensatory contractual fine, incurring on the due balance, including principal and respective financial costs).</p> <p>Rate: 94% of Interbank Deposit Certificate (CDI)</p> <p>FCA is entitled to make the early payment of the amount due, as whole or in part, including the principal and interest calculated from March 21, 2011, to the date of effective payment. FCA should notify its intention to make an early payment at least three (3) days in advance.</p>
<b>Nature and reasons for the operation / other relevant information</b>	3/31/2011 (Amendment)
<b>Name of related party</b>	Ferrovias Centro Atlântica S/A
<b>Date of transaction</b>	4/15/2011 (Original Agreement) and 3/31/2011 (Amendment).
<b>Amount (R \$)</b>	R\$ 1,360,000.00
<b>Current balance (R \$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	FCA paid the Loan, duly adjusted, on 6/06/2011.
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Financial Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>Should FCA fail to comply with any of the obligations in the Agreement, VALE may automatically enforce it by the whole value of the Loan (principal and interest due) added with contractual fine (1% monthly interest rate, incurring from the default to the date of effective payment and 2% compensatory contractual fine, incurring on the due balance, including principal and respective financial costs).</p>

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Rate: 94% of Interbank Deposit Certificate (CDI)

FCA is entitled to make the early payment of the amount due, as whole or in part, including the principal and interest calculated from March 21, 2011, to the date of effective payment. FCA should notify its intention to make an early payment at least three (3) days in advance.

**Nature and reasons for the operation / other relevant information** 3/31/2011 (Amendment)

**Name of related party** Ferrovia Centro Atlântica S/A

**Date of transaction** 4/18/2011

**Amount (R \$)** R\$ 2,400,000.00

**Current balance (R \$)** 0.00

**Amount of related party** Not applicable

**Duration** FCA paid the Loan, duly adjusted, on 6/06/2011.

**Loan or other type of debt** YES

**Interest rate** 0.0000

**Relationship with the Company** Subsidiary

**Purpose of the contract** Financial Loan

**Guaranties and insurance** None

**Conditions of termination or expiration** Should FCA fail to comply with any of the obligations in the Agreement, VALE may automatically enforce it by the whole value of the Loan (principal and interest due) added with contractual fine (1% monthly interest rate, incurring from the default to the date of effective payment and 2% compensatory contractual fine, incurring on the due balance, including principal and respective financial costs).

Rate: 94% of Interbank Deposit Certificate (CDI)

FCA is entitled to make the early payment of the amount due, as whole or in part, including the principal and interest calculated from March 21, 2011, to the date of effective payment. FCA should notify its intention to make an early payment at least three (3) days in advance.

**Nature and reasons for the operation / other relevant information** 3/31/2011 (Amendment)

**Name of related party** Ferrovia Centro Atlântica S/A

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<b>Date of transaction</b>	4/25/2011
<b>Amount (R \$)</b>	R\$ 11,000,000.00
<b>Current balance (R \$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	FCA paid the Loan, duly adjusted, on 6/06/2011.
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Financial Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Should FCA fail to comply with any of the obligations in the Agreement, VALE may automatically enforce it by the whole value of the Loan (principal and interest due) added with contractual fine (1% monthly interest rate, incurring from the default to the date of effective payment and 2% compensatory contractual fine, incurring on the due balance, including principal and respective financial costs).  Rate: 94% of Interbank Deposit Certificate (CDI)
<b>Nature and reasons for the operation / other relevant information</b>	FCA is entitled to make the early payment of the amount due, as whole or in part, including the principal and interest calculated from April 25, 2011, to the date of effective payment. FCA should notify its intention to make an early payment at least three (3) days in advance. 3/31/2011 (Amendment)
<b>Name of related party</b>	VLI Multimodal S.A.
<b>Date of transaction</b>	12/7/2010
<b>Amount (R\$)</b>	0.00
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Undetermined
<b>Loan or other type of debt</b>	Not applicable
<b>Rate of interest</b>	Not applicable
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Buy-out option subject to future event: Vale S.A will pay VLI Multimodal S.A (in case of exercise of buy-out), prices determined by the residual value booked by VLI Multimodal S.A, considering maintenance and improvements, compliant with the appropriate depreciation.

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In case of characterization of one or more assets as revertible assets:

1- the price to be paid for the assets will be the indemnity paid by the Granting Authority to Vale S.A., and VLI Multimodal S.A is entitled to receive a value that is not lower than the nominal value originally paid for each asset;

2- should the indemnity paid by the granting authority be lower than the price paid by Vale S.A to VLI Multimodal S.A, this should return the difference to Vale S.A., under the terms in item i above.

### **Guaranties and insurance**

Not applicable

### **Conditions of termination or expiration**

No fine is provided for in case of termination

Option linked to the effectiveness of the Cargo Railroad Transportation Services and Related Services Agreement entered by and between Vale S.A e VLI Multimodal S.A on 12/7/2010.

VLI Multimodal is the owner of wagons and locomotives ( Assets ), required for the provision of services under the Transportation Agreement, reason why VLI Multimodal granted the Assets to VALE, in exclusively and irretrievably mode, for the entire effectiveness of the Transportation Agreement.

VALE may acquire part or all the Assets, upon one of the following circumstances:

a) Determination by the Granting Authority in this sense;

b) Termination of Concession Agreements for any reason;

c) Termination of the Transportation Agreement for any reason;

d) File or order of insolvency, bankruptcy, or judicial or extrajudicial recovery by VLI Multimodal;

f) Existence of third-party claim, in judicial or administrative procedure, incurring on one or more Assets or creating any encumbrance, that is not cured by VLI Multimodal in twenty days; and

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g) If VLI Multimodal, for any reason, removes one or more Assets from Vale's possession, without its express written agreement.



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**Nature and reasons for the operation / other relevant information**

<b>Name of related party</b>	VLI Multimodal S.A.
<b>Date of transaction</b>	7/1/2012
<b>Amount (R\$)</b>	R\$ 300,014,000,00
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	2/19//2020 for the Terminal de Praia Mole and 12/16/2018 for the Terminal de Produtos Diversos e Graneis Líquidos
<b>Loan or other type of debt</b>	NO
<b>Rate of interest</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Provision of Cargo Port Transportation Services and Related Services at the Private Terminal of Mixed Use in Praia Mole, at the Terminal de Produtos Diversos and the Terminal de Graneis Líquidos. On 11/29/2013, the Parties executed the first contractual amendment in order to guarantee improvements in the contractual management and control of compliance with contractual obligations
<b>Guaranties and insurance</b>	Not applicable
<b>Conditions of termination or expiration</b>	Non-compliance by the other party with any of the contractual obligations, except if the Infringing Party fails to resolve the non-compliance within sixty (60) days upon receipt of notice by the Non-Infringing Party in this sense.

If the other Party files for insolvency, bankruptcy of judicial or extrajudicial recovery;

Evidence of government authority act, administration act, act of God or force majeure, that prevents performance of the Agreement for more than one hundred eight (180) days.

Change in direct or indirect shareholding control of either Party;

Termination Fine R\$80,615,659.69.

Note: Provision of services by VALE to VLI Multimodal to move general cargo to allow VLI Multimodal customers to be served by port terminals, aiming for efficiency, excellency, and

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relationship and service improvement offered continuously, with increased volume of traffic at the terminals and consequent improvement of results.

### Nature and reasons for the operation / other relevant information

<b>Name of related party</b>	Vale Energia Limpa S.A. - VEL
<b>Date of transaction</b>	07/13/2012
<b>Amount (R\$)</b>	R\$ 13,628,450.00
<b>Current balance (R\$)</b>	R\$ 15,706,742.34
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/15/2020
<b>Loan or other type of debt</b>	YES
<b>Rate of interest</b>	0.0%
<b>Corporate relation</b>	Subsidiary
<b>Purpose of the contract</b>	Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<b>PREPAYMENT</b>

Vale Energia Limpa (VEL) may prepay the amount, in whole or in part, including principal and interest calculated from the date of the disbursement until the date of actual payment.

VEL should notify its intention to make the prepayment at least 3 (three) days in advance.

### EARLY TERMINATION

If VEL fails to meet any of its obligations, Vale may automatically assume the debt for the total value (principal and interest) plus the contractual penalty provided for in the contract, in the following events:

- (a) VEL does not make the payments on the deadlines specified in the agreement of a period longer than 5 (five) commercial days starting from the date the payment should have been made;

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(b) Vales Áustria Holdings GmbH and Clean Fuel (South American) S.A. will lose 51% and 49% of the total shares issued by VEL, directly or indirectly;

(c) VEL fails to comply with any of the commitments made in the agreement;

(d) There are any material changes in the VEL's business or financial situation, as per Vale's exclusive opinion;

(e) VEL's judicial or extrajudicial recovery, bankruptcy or civil insolvency is ordered, as long as their effects are not suspended for 60 (sixty) days. .

**Nature and reasons for the operation / other relevant information**

Applicable interest rate: 0.0% per year fixed in reais

This is a loan between companies to help with cash flow. The Company is a creditor in this operation

**Name of related party**

Companhia Coreano Brasileira de Pelotização - Kobrasco

**Date of transaction**

5/06/2008

**Amount (R\$)**

R\$ 151,292,613.31

**Current balance (R\$)**

R\$ 4,194,230.13

**Amount of related party**

Not applicable

**Duration**

By 5/31/2018

**Loan or other type of debt**

NO

**Interest rate**

0.0000

**Relationship with the Company**

Affiliate

**Purpose of the contract**

Contract for leasing assets. Vale leased the Kobrasco pellet plant, upon payment of a fixed portion and variable portion depending on the performance of the assets. Term of the contract is 5 (five) years, renewable successively for an equal period.

**Guaranties and insurance**

None

**Conditions of termination or expiration**

Written notice to the other party at least one year in advance of its termination

**Nature and reasons for the operation / other relevant Information**

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<b>Name of related party</b>	Samarco Mineração S.A.
<b>Date of transaction</b>	04/12/2004
<b>Amount (R\$)</b>	722,845,168.00
<b>Current balance (R\$)</b>	445,372,000.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	1/1/2027
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Affiliate
<b>Purpose of the contract</b>	Regulate commercial relations between the parties regarding sale of iron ore produced by Vale for Samarco. (total of three contracts)
<b>Guaranties and insurance</b>	There is insurance against damages, in the area in control of the purchaser, related to the materials and/or equipment belonging to the vendor, as provided for by the PURCHASER.
<b>Conditions of termination or expiration</b>	<p>The contract may be terminated by operation of law, by the innocent party, without prior notice, in any of the following cases:</p> <p>1) Default of any term, condition or provision of this contract or its exhibits, provided that the breach is not remedied within thirty (30) calendar days of the written notices provided for above. In such case, the party at fault must pay the innocent party a contractual fine of 10% (ten percent) of the annual amount in which the event occurs, which will be deducted from the losses and damages. The higher value holds, in any case, over the lower, at the risk of refund;</p> <p>2) Bankruptcy, judicial or extrajudicial recovery, dissolution or, judicial or extrajudicial liquidation, declared or approved;</p> <p>3) Suspension by the competent authorities of the implementation of the Services for more than thirty (30) days;</p> <p>4) Suspension of service due to the occurrence of <i>force majeure</i> or unforeseeable circumstances as noted in the fourteenth clause for a period exceeding ninety (90) days, in which case the VENDOR has the right to receive from the PURCHASER the supplies already provided.</p>
<b>Nature and Reasons for the operation / other Relevant Information</b>	

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<b>Name of related party</b>	MRS Logística S.A.
<b>Date of transaction</b>	01/01/2011
<b>Amount (R\$)</b>	1,331,287,942.55
<b>Current balance (R\$)</b>	21,506,000.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	01/01/2011 to 11/30/2026
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Affiliate
<b>Purpose of the contract</b>	Regulate the provision by MRS to VALE, of rail transportation services of iron ore loading from iron ore terminals named Terminal do Andaime, Terminal do Córrego do Feijão, Terminal Água Santa, Terminal Olhos D'Água, Terminal Sarzedo Novo TCS (Terminal de Carga de Sarzedo), Terminal Sarzedo, Terminal Alberto Flores, Terminal Souza Noschese, Terminal de Juiz de Fora, located in the state of Minas Gerais, and certain other terminals for shipping - while transportation conditions will be agreed upon at the time to unloading terminals Guaíba, CPBS, CSA, and Patrag, the first three in the State of Rio de Janeiro and the last one in the State of Minas Gerais (Ouro Branco).
<b>Guaranties and insurance</b>	<p>During the duration of the contract, Vale will guarantee MRS the minimum payment of 80% (eighty per cent) of MRS Scheduled Annual Revenue, based on annually adjusted volumes.</p> <p>MRS must contract the Optional Liability Insurance for personal injury and damage caused to third parties, and is responsible for payment of the corresponding values of the policies, copies of which should be sent to Vale with the general terms of the respective insurance; the same applies for insurances and attributions under Vale responsibility.</p>
<b>Conditions of termination or expiration</b>	<p>The contract may be terminated by operation of law, by written notice to the other party, without prior notice, in any of the following cases:</p> <p>1) default, by either party of any term, condition or provision of this contract, provided that the breach is not remedied within sixty (60) calendar days of the notices provided for above.</p> <p>2) bankruptcy, judicial or extrajudicial recovery, dissolution or, judicial or extrajudicial liquidation, declared or approved;</p> <p>3) suspension by the competent authorities of the implementation of the Services;</p>

4) If MRS suspends the Service, in whole or in part, without express prior notice or written consent by Vale, for more than ten (10) consecutive days or 30 (thirty) alternating days;

5) Suspension of service due to the occurrence of *force majeure* or unforeseeable circumstances for a period exceeding sixty (60) days;

6) If a party assigns this contract without prior knowledge and written consent of the other party, compliant with clause eighteen.

**Nature and reasons for the operation / other relevant Information**

<b>Name of related party</b>	Minerações Brasileiras Reunidas S.A. - MBR
<b>Date of transaction</b>	06/01/2007
<b>Amount (R\$)</b>	792,000,000.00
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Cannot be assessed
<b>Duration</b>	Until 05.31.2037
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Lease of facilities
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Through dissolution or if the contract of usufruct of shares of Empreendimentos Brasileiros de Minerações S.A. EBM ends
<b>Nature and reasons for the operation / other relevant Information</b>	-
<b>Name of related party</b>	Vale Mina do Azul S.A.

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<b>Date of transaction</b>	8/1/2011
<b>Amount (R\$)</b>	131,306,387.09
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	7/30/2013 This agreement has terminated already.
<b>Loan or other type of debt</b>	NO
<b>Rate of interest</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Handling of manganese ore dispatched from Carajás-PA to São Luis-MA for Vale Manganês, and shipping at Ponta da Madeira terminal.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	This contract may be terminated by either party, without any charge, provided it is done in writing with at least 60 (sixty) days in advance of the intended termination date. If that is the case, no indemnity or compensation whatsoever may be paid, not even for loss or damage.
<b>Nature and reasons for the operation / other relevant information</b>	-
<b>Name of related party</b>	Vale Manganês S.A. - 520000012
<b>Date of transaction</b>	1/01/2006
<b>Amount (R\$)</b>	2,901,223.99
<b>Current balance (R\$)</b>	228,131.86
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2014
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Supply of hematite (HTFA), raw material necessary for industrial operation in manufacture of iron alloys.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant information</b>	

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<b>Name of related party</b>	Vale Manganês S.A. and Vale Energia S.A. 4600000627
<b>Date of transaction</b>	11/18/2009
<b>Amount (R\$)</b>	918,000.00
<b>Current balance (R\$)</b>	648,060.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Until 2025
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Agency services (power supply)
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	The contract may be terminated by either party, without cause, with thirty (30) days prior notice. If such is the case, no compensation may be owed by either party.

The contract may also be terminated by either party upon notice given to the other in the event of bankruptcy, recovery, or judicial or extrajudicial liquidation of the other party, or non-compliance by the other party of any obligation arising from the contract.

**Nature and reasons for the operation / other relevant Information**

<b>Name of related party</b>	Vale Manganês S.A. and PASA Plano de Assistência à Saúde do Aposentado da Vale 4600001539
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<b>Date of transaction</b>	5/18/2010
<b>Amount (R\$)</b>	2,996,227.80
<b>Current balance (R\$)</b>	1,201,905.19
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	5/18/2014
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Management and Complementary Medical Services ( AMS )
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	Vale Manganês S.A. - 46000001674
<b>Date of transaction</b>	6/16/2010
<b>Amount (R\$)</b>	8,179,880.00
<b>Current balance (R\$)</b>	2,060,219.50
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	6/16/2014
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Employees provided by Vale S.A. to Vale Manganês S.A.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	Vale Manganês S.A. and Vale Energia S.A. 46000011853

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<b>Date of transaction</b>	5/15/2013
<b>Amount (R\$)</b>	R\$ 15,000,000.00
<b>Current balance (R\$)</b>	R\$ 13,578,711.89
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2014
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>Either party may terminate this agreement for no specific reason, upon prior written notice with at least thirty (30) days in advance, and in this case, no compensation is due by either party.</p> <p>Either party may also deem this agreement terminated upon notice to the other party, in case of bankruptcy, judicial or extrajudicial recovery or liquidation of the other party, or default by the other party for any contractual obligation.</p>
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	Salobo Metais S.A.
<b>Date of transaction</b>	9/01/2012
<b>Amount (R\$)</b>	R\$ 6,577,585.82
<b>Current balance (R\$)</b>	R\$ 4,694,388.14
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2013
<b>Loan or other type of debt</b>	NO

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<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	Subsidiary
<b>Purpose of the contract</b>	Railroad transportation service by Vale to Salobo
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	MRC Serviços Ferroviários CBRJ-AL Ltda.
<b>Date of transaction</b>	1/01/2011
<b>Amount (R\$)</b>	14,611,085.07
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2016
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	A company member of the Mitsui group, Vale controlling group
<b>Purpose of the contract</b>	Lease of 300 new HPE type wagons
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Provided that (i) no breach has occurred or persists at the time of the notice foreseen in item (ii) below, and at the time of return of all wagons as specified under para. (iii) below; (ii) written notice has been given to MRC by the LESSEES 180 (one-hundred and eighty) days in advance to inform on their intention to terminate the Contract; and (iii) all the wagons have been returned by the LESSEES as provided for in Clause 20, the LESSEES will have the right, upon payment of the consideration provided for in Clause 23.2 of the Contract, to irrevocably terminate the Contract with respect to all (and not less than all) wagons.

If the LESSEES terminate the Contract pursuant to Clause 23.1, they will pay MRC:

- i) a fine per leased wagon for the LESSEES for a value in Reais equivalent to the remaining balance in the Contract; and

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ii) a compensation for any other costs, fines, expenses, damages or disbursement incurred as a result of termination of the contract and other operational documents.

Above mentioned value, including that resulting from the established formula in Clause 23.2 of the contract, will be corrected based on the IGP-M (General Market Price Index) within the least time slot allowed by the applicable law.

Except in the event of non-compliance by MRC, the values mentioned in clause 23 of the Contract will be owed by the LESSEES to MRC, regardless of the reason which caused termination by the LESSEES.

### **Nature and reasons for the operation / other relevant information**

<b>Name of related party</b>	MRC Serviços Ferroviários CBRJ-AL Ltda.
<b>Date of transaction</b>	2/24/2011
<b>Amount (R\$)</b>	7,748,870.61
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2016
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	A company member of the Mitsui group, Vale controlling group
<b>Purpose of the contract</b>	Lease of 300 new HPE type wagons
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Provided that (i) no breach has occurred or persists at the time of the notice foreseen in item (ii) below, and at the time of return of all wagons as specified under para. (iii) below; (ii) written notice has been given to MRC by the LESSEES 180 (one-hundred and eighty) days in advance to inform on their intention to terminate the Contract; and (iii) all the wagons have been returned by the LESSEES as provided for in Clause 20, the LESSEES will have the right, upon payment of the consideration provided for in Clause 23.2 of the Contract, to irrevocably terminate the Contract with respect to all (and not less than all) wagons.

If the LESSEES terminate the Contract pursuant to Clause 23.1, they will pay MRC:

i) a fine per leased wagon for the LESSEES for a value in Reais equivalent to the remaining balance in the Contract; and

- ii) a compensation for any other costs, fines, expenses, damages or

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disbursement incurred as a result of termination of the contract and other operational documents.

Above mentioned value, including that resulting from the established formula in Clause 23.2 of the contract, will be corrected based on the IGP-M (General Market Price Index) within the least time slot allowed by the applicable law.

Except in the event of non-compliance by MRC, the values mentioned in clause 23 of the Contract will be owed by the LESSEES to MRC, regardless of the reason which caused termination by the LESSEES.

<b>Nature and reasons for the operation / other relevant Information</b>	<b>Guarantee the operational continuation of the manufacturing plants with supply of sulfur.</b>
<b>Name of related party</b>	MRC Equipamentos Ferroviários DZOT FC Ltda.
<b>Date of transaction</b>	11/8/2011
<b>Amount (R\$)</b>	18,412,984.63
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2017
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Company</b>	A company member of the Mitsui group, Vale controlling group
<b>Purpose of the contract</b>	Lease of 520 new HPE type wagons
<b>Guaranties and insurance</b>	Maintain insurance under the following minimum terms: <ul style="list-style-type: none"> <li>• property insurance all risks</li>   <li>• civil liability against physical integrity damages, death, and property damages resulting out of the use, operation, maintenance, and property of wagons</li> </ul>
<b>Conditions of termination or expiration</b>	Provided that <ul style="list-style-type: none"> <li>(i) no breach has occurred or persists at the time of the notice foreseen in item (ii) below, and at the time of return of all wagons as specified under para. (iii) below;</li> </ul>

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(ii) written notice has been given to MRC by the LESSEES 180 (one-hundred and eighty) days in advance to inform on their intention to terminate the Contract; and

(iii) all the wagons have been returned by the LESSEES as provided for in Clause 20, the LESSEES will have the right, upon payment of the consideration provided for in Clause 23.2 of the Contract, to irrevocably terminate the Contract with respect to all (and not less than all) wagons.

If the LESSEES terminate the Contract pursuant to Clause 23.1, they will pay MRC:

i) a fine per leased wagon for the LESSEES for a value in Reais equivalent to the remaining balance in the Contract; and

ii) a compensation for any other costs, fines, expenses, damages or disbursement incurred as a result of termination of the contract and other operational documents.

Above mentioned value, including that resulting from the established formula in Clause 23.2 of the contract, will be corrected based on the IGP-M (General Market Price Index) within the least time slot allowed by the applicable law.

Except in the event of non-compliance by MRC, the values mentioned in clause 23 of the Contract will be owed by the LESSEES to MRC, regardless of the reason which caused termination by the LESSEES.

### **Nature and reasons for the operation / other relevant Information**

<b>Name of related party</b>	Mitsui & Co. Ltd. and Vale Fertilizers
<b>Date of transaction</b>	1/01/2013
<b>Amount (R\$)</b>	49,886,372.43
<b>Current balance (R\$)</b>	47,971,773.26
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	<b>12/31/2013</b>
<b>Loan or other type of debt</b>	No
<b>Interest rate</b>	<b>0.00</b>
<b>Relationship with the Issuer</b>	<b>Indirect controller</b>
<b>Purpose of the contract</b>	<b>Guarantee the operational continuation of the manufacturing plants with supply of sulfur.</b>

<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	Not applicable



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<b>Nature and reasons for the operation / other relevant Information</b>	.
<b>Name of related party</b>	Ultrafertil S.A. and Vale Fertilizantes S.A.
<b>Date of transaction</b>	1/01/2013
<b>Amount (R\$) (R\$)</b>	83,776,511.41
<b>Current balance (R\$)</b>	6,072,464,43
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	<b>12/31/2013</b>
<b>Loan or other type of debt</b>	No
<b>Rate of interest</b>	0.00
<b>Relationship with the Issuer</b>	Related party
<b>Purpose of the contract</b>	<b>Guarantee the operational continuation of the manufacturing plants with the use of its port terminal to import input for fertilizers</b>
<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	Not applicable
<b>Nature and reasons for the operation / other relevant Information</b>	-
<b>Name of related party</b>	Vale Cubatão Fertilizantes Ltda. for Vale Fertilizantes S.A.
<b>Date of transaction</b>	1/01/2013
<b>Amount (R\$)</b>	9,407,023.01
<b>Current balance (R\$)</b>	9,407,023.01
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	<b>12/31/2013</b>
<b>Loan or other type of debt</b>	No
<b>Rate of interest</b>	0.00
<b>Relationship with the Issuer</b>	Related party
<b>Purpose of the contract</b>	Loan of facilities
<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	Not applicable

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**Nature and reasons for the operation / other relevant Information** -

**Name of related party** Vale Energia S.A. p/ Vale Fertilizantes S.A.

**Date of transaction** 01/01/2013

**Amount (R\$)** 28,373,861.87

**Current balance (R\$)** 2,282,000,00

**Amount of related party** Not applicable

**Duration** 12/31/2013

**Loan or other type of debt** No

**Rate of interest** 0.00

**Relationship with the Issuer** Related party

**Purpose of the contract** Power supply

**Guarantees and insurances** None

**Conditions of termination or expiration** Not applicable.

**Nature and reasons for the operation / other relevant Information**

**Name of related party** Vale S.A. p/ Vale Fertilizantes S.A.

**Date of transaction** 1/01/2013

**Amount (R\$)** 12,081,848.89

**Current balance (R\$)** 726,000.00

**Amount of related party** Not applicable

**Duration** 12/31/2013

**Loan or other type of debt** No

**Rate of interest** 0.00

**Relationship with the Issuer** Controller

**Purpose of the contract** Port service to import equipment

**Guarantees and insurances** None

**Conditions of termination or expiration** Not applicable.

**Nature and reasons for the operation / other relevant Information**

**Name of related party** Vale International p/ Vale Fertilizantes S.A.

**Date of transaction**

1/01/2013

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<b>Amount (R\$)</b>	87,980,369.75
<b>Current balance (R\$)</b>	79,395,013.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2013
<b>Loan or other type of debt</b>	No
<b>Rate of interest</b>	0.00
<b>Relationship with the Issuer</b>	Related party
<b>Purpose of the contract</b>	Acquisition of input for fertilizers
<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	Not applicable.
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	Mitsui & Co. Ltd. e Vale Fertilizantes
<b>Date of transaction</b>	1/01/2013
<b>Amount (R\$)</b>	61,672,815.25
<b>Current balance (R\$)</b>	47,966,160.77
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/31/2013
<b>Loan or other type of debt</b>	NO
<b>Rate of interest</b>	0.000000
<b>Relationship with the Issuer</b>	Indirect controller
<b>Purpose of the contract</b>	<b>Guarantee the operational continuation of the manufacturing plants with supply of sulfur.</b>
<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	Not applicable.
<b>Nature and reasons for the operation / other relevant Information</b>	-
<b>Name of related party</b>	Ultrafertil S.A. e Vale Fertilizantes
<b>Date of transaction</b>	1/01/2011

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<b>Amount (R\$)</b>	277,525,905.35
<b>Current balance (R\$)</b>	R\$ 0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	1 year
<b>Loan or other type of debt</b>	NO
<b>Rate of interest</b>	0.000000
<b>Relationship with the Issuer</b>	Controller of Vale Fertilizantes
<b>Purpose of the contract</b>	Sale of input for fertilizers
<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant Information</b>	-
<b>Name of related party</b>	Ultrafertil S.A. e Vale Fertilizantes
<b>Date of transaction</b>	1/01/2011
<b>Amount (R\$)</b>	503,252.69
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	1 year
<b>Loan or other type of debt</b>	YES
<b>Rate of interest</b>	0.000000
<b>Relationship with the Issuer</b>	Controller of Vale Fertilizantes
<b>Purpose of the contract</b>	Loan by Ultrafertil of input for fertilizers (with incurring taxes)
<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	Not applicable.
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	Ultrafertil S.A. and Vale Fertilizantes
<b>Date of transaction</b>	1/01/2011
<b>Amount (R\$)</b>	366,146,181.90
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable

<b>Duration</b>	1 year
<b>Loan or other type of debt</b>	NO

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<b>Rate of interest</b>	0.0000
<b>Relationship with the Issuer</b>	Controller of Vale Fertilizantes
<b>Purpose of the contract</b>	Acquisition of input for fertilizers
<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant Information</b>	-
<b>Name of related party</b>	Ultrafertil S.A. and Vale Fertilizantes
<b>Date of transaction</b>	1/01/2011
<b>Amount (R\$)</b>	R\$ 7,540,985.97
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	1 year
<b>Loan or other type of debt</b>	YES
<b>Rate of interest</b>	0.00
<b>Relationship with the Issuer</b>	Controller of Vale Fertilizantes
<b>Purpose of the contract</b>	Loan of Ultrafertil of input for fertilizers (with incidental taxes)
<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant Information</b>	This is a loan of input for manufacturing of fertilizers.
<b>Name of related party</b>	Vale Fertilizantes S.A.
<b>Date of transaction</b>	1/01/2011
<b>Amount (R\$)</b>	R\$ 1,888,000.00
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	1 year
<b>Loan or other type of debt</b>	NO

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<b>Rate of interest</b>	0.0000000
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Sale of logistic services
<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant Information</b>	-
<b>Name of related party</b>	Vale Energia
<b>Date of transaction</b>	1/01/2012
<b>Amount (R\$)</b>	R\$ 407,890,961.82
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	1 year
<b>Loan or other type of debt</b>	NO
<b>Rate of interest</b>	0.0000000
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Purchase of power
<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	None
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	Vale Cubatão Fertilizantes
<b>Date of transaction</b>	1/01/2011
<b>Amount (R\$)</b>	R\$ 3,335,000.00
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	1 year
<b>Loan or other type of debt</b>	NO
<b>Rate of interest</b>	0.0000000
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Acquisition of input for fertilizers



<b>Guarantees and insurances</b>	None
<b>Conditions of termination or expiration</b>	None

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**Nature and reasons for the operation / other relevant Information** -

**Name of related party** Sociedad Contractual Minera Tres Valles

**Date of transaction** 8/29/2011

**Amount (R\$)** R\$ 64,456,000.00

**Current balance (R\$)** R\$ 0.00

**Amount of related party** Not applicable

**Duration** 08/29/2015

**Loan or other type of debt** YES

**Interest rate** 3.11%

**Relationship with the Issuer** Subsidiary

**Purpose of the contract** Financing Working Capital

**Guaranties and insurance** None

**Conditions of termination or expiration** **PREPAYMENT**

- Vale and Sociedad Contractual Minera Tres Valles may cancel the non-disbursed portion of the funding.

- Sociedad Contractual Minera Tres Valles may, upon notification to Vale ten days in advance, prepay the funding as a whole or in part.

**EARLY REDEMPTION**

- If upon execution of the funding agreement there is any amendment to law, regulation or interpretation by any governmental authority that considers the agreement illegal or Vale being prevented from complying with it or funds impossible to be sent, the agreement is cancelled and every disbursement and accrued interest and accrued amounts related to the agreement shall be immediately due and payable.

- If the Company no longer controls Sociedad Contractual Minera Tres Valles, the agreement is cancelled and every disbursement and accrued interest and accrued amounts related to the agreement shall be considered.

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<b>Nature and reasons for the operation / other relevant Information</b>	Available interest rate: 3.11% per year fixed in US dollars
	The operation aims to cover the working capital need of Sociedad Contractual Minera Tres Valles
	The agreement was terminated on 12/9/2013.
<b>Name of related party</b>	Kaserge Serviços Gerais Ltda.
<b>Date of transaction</b>	3/17/2011
<b>Amount (R\$)</b>	R\$ 11,677,485.25
<b>Current balance (R\$)</b>	R\$ 15,378,277.18
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	12/27/2014
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	94%
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<b>PREPAYMENT</b>

KSG may prepay the amount, in whole or in part, including principal and interest calculated from March 17, 2011 until effective payment.

KSG should notify its intention to make the prepayment at least 3 (three) days in advance.

### **EARLY REDEMPTION**

If KSG fails to meet any of its obligations, Vale may automatically assume the debt for the total value of the loan (principal and interest) plus the contractual penalty provided for in the contract, the present serving as an extrajudicial execution order, in accordance with Article 585 of the Code of Civil Procedure.

<b>Nature and reasons for the operation / other relevant Information</b>	Available interest rate: 94% of the CDI.
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This is an inter-company loan for cash centralization. Vale is the creditor in the operation.

<b>Name of related party</b>	MSE Serviços de Operação, Manutenção e Montagem Ltda.
<b>Date of transaction</b>	3/17/2011
<b>Amount (R\$)</b>	R\$ 55,841,996.61
<b>Current balance (R\$)</b>	R\$ 0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Loan paid on 6/28/2013, by capitalization
<b>Loan or other type of debt</b>	YES

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**Interest rate** 94%

**Relationship with the Issuer** Subsidiary

**Purpose of the contract** Loan

**Guaranties and insurance** None

**Conditions of termination or expiration** **PREPAYMENT**

MSE may prepay the amount, in whole or in part, including principal and interest calculated from March 17, 2011 until effective payment.

MSE should notify its intention to make the prepayment at least 3 (three) days in advance

**EARLY REDEMPTION**

If MSE fails to meet any of its obligations, Vale may automatically assume the debt for the total value of the loan (principal and interest) plus the contractual penalty provided for in the contract, the present serving as an extrajudicial execution order, in accordance with Article 585 of the Code of Civil Procedure

**Nature and reasons for the operation / other relevant Information** Available interest rate: 94% of the CDI.

This is an inter-company loan for cash centralization.. Vale is the creditor in the operation.

**Name of related party** MSE Serviços de Operação, Manutenção e Montagem Ltda.

**Date of transaction** 10/1/2013

**Amount (R\$)** R\$ 600,000.00

**Current balance (R\$)** R\$ 528,023.36

**Amount of related party** Not applicable

**Duration** 10/1/2014

**Loan or other type of debt** YES

**Interest rate** 0

**Relationship with the Issuer** Subsidiary

<b>Purpose of the contract</b>	Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<b>EARLY PAYMENT</b>

The Lessee is entitled to the early payment of amounts due, as a whole or in part, comprising the values disbursed at the Credit Facility and Interest calculated to the date of effective payment.

The Lessee should notify its intention to make the early payment at least five (5) days in advance.

Any amounts received by the Lessor as early payment should not be reestablished for purposes of new disbursements under the Credit Facility and should be used in the following order: (i) first, to pay any default fee or other penalties with pending payment by the Lessee under this Agreement; (ii) second, to pay interest calculated to the date of effective payment; and (iii) third, to pay for the amount disbursed and not paid in the Credit Facility.

#### **EARLY MATURITY**

Lessee may automatically enforce it by the whole value of the Loan, added with contractual fees, under the following circumstances:

- (i) LESSEE failure to make the payment of any amount due on the dates agreed in the agreement for a period of more than 5 (five) working days, starting on the date of default.
- (ii) Vale S.A. no longer holds, directly or indirectly, the totality of shares issued by LESSEE.
- (iii) LESSEE fails to comply with any of the contractual obligations.
- (iv) any statement given by LESSEE is proven to be false or misleading in any material aspect, when given or provided and, if subject to remediation, if it is not cured for a period of more than 30 (thirty) days after Lessor's notification.
- (v) if Lessee's judicial or extrajudicial recovery, bankruptcy, or civil insolvency is determined or requested, and its effects are not suspended within thirty (30) days.

(vi) LESSEE admits in writing its inability to pay for its debts in general.

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(vii) there is judicial or administrative measure determining constriction or blocking of substantial portion of the assets of LESSEE and its effects are not suspended within thirty (30) days.

(viii) LESSEE suspends its activities for more than 30 (thirty) days, restricting its payment capacity.

(ix) there is any material change in the business or financial conditions of LESSEE, at Vale's sole discretion, provided that duly grounded.

(x) If LESSEE fails to comply with, at the appropriate date, its payment obligations arising out of other operations entered with Vale, provided that the total debt sums an amount equal or higher than R\$50,000.00 (fifty thousand reais) and cause the effective early maturity of corresponding operations.

(xi) the agreement is no longer *pari passu* regarding other financial obligations of LESSEE (current and future), except for those with legal priority.

(xii) any term of the agreement or any other document provided by or on behalf of LESSEE, under or related to this agreement: i) is no longer valid and binding or applicable to LESSEE; or ii) is no longer in full force and effect; or iii) has its validity or applicability questioned by any of the parties

The Lessee must inform the Lessor immediately upon learning about the occurrence of any of the events above.

**Nature and reasons for the operation / other relevant Information**

Available interest rate: 110% of the CDI.

This is an inter-company loan for cash centralization.. Vale is the creditor in the operation.

Vale is creditor in the operation.

**Name of related party**

Norpel Pelotização do Norte S.A.

**Date of transaction**

3/17/2011

**Amount (R\$)**

R\$ 25,460,362.19



<b>Current balance (R\$)</b>	R\$ 0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	Loan paid on 8/12/2013, by capitalization
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	94%
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Loan
<b>Guaranties and insurance</b>	None

**Conditions of termination or expiration**      **PREPAYMENT**

NORPEL may prepay the amount, in whole or in part, including principal and interest calculated from March 17 (seventeen), 2011 until effective payment.

NORPEL should notify its intention to make the prepayment at least 3 (three) days in advance.

**EARLY REDEMPTION**

If NORPEL fails to meet any of its obligations, Vale may automatically assume the debt for the total value of the loan (principal and interest) plus the contractual penalty provided for in the contract, the present serving as an extrajudicial execution order, in accordance with Article 585 of the Code of Civil Procedure.

**Nature and reasons for the operation / other relevant Information**      Available interest rate: 94% of the CDI.

This is an inter-company loan for cash centralization.. Vale is the creditor in the operation.

<b>Name of related party</b>	Vale Óleo e Gás S.A.
<b>Date of transaction</b>	7/1/2011
<b>Amount (R\$)</b>	35,766,000.00
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable

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<b>Duration</b>	6 months, by 12/31/2011. (contract ended)
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.0000
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	The purpose of the contract is the provision of technical support services by Vale Óleo e Gás, in Brazil and abroad, for technical-economic assessment and oil and natural gas asset risks, as well as potential areas for research and exploration, accompaniment of E&P activities, assisting and representing Vale before its partners, committees and managing entities, including preparation, approval and control of budgets, schedules and compliance with environmental requirements, and health and safety requirements, compliance and release of cash calls and service measurements
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Not applicable
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	Vale Óleo e Gás S.A.
<b>Date of transaction</b>	12/4/2013
<b>Amount (R\$)</b>	R\$ 3,500,000.00
<b>Current balance (R\$)</b>	2,961,540.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	This agreement will be in force until 12/31/2014, provided that the agreement have retroactive effects to 7/1/2013
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.000000
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	The purpose of the contract is to provide support technical services, by Vale Óleo e Gás, in Brazil and abroad, technical-economical assessment and oil and natural gas assets risk assessment, as well as the assessment of potential areas for the research, exploration, and monitoring of E&P activities, plus Vale's consultancy and representation to their partners, committees, managing organizations, oil and gas consortiums, including the development, approval and control of budget estimates, schedules and compliance with environmental, health, and safety requirements, conference and release of cash calls, and service measurement.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Not applicable

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### Nature and reasons for the operation / other relevant Information

<b>Name of related party</b>	Biopalma da Amazônia S.A. Reflorestamento, Indústria E Comércio
<b>Date of transaction</b>	03/17/2011
<b>Amount (R\$)</b>	R\$ 301,800,000.00
<b>Current balance (R\$)</b>	R\$ 833,541,739.69
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	05/15/2021
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	4.50%
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Financing of investments
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	EARLY REDEMPTION

Biopalma may redeem the debentures early, as a whole or in part, with no fine.

b) If it intends to exercise the early redemption of Debentures, Biopalma should notify VALE in writing.

c) In case of early redemption of Debentures, under the terms in clause 5.6.2 of the deed, Biopalma should pay VALE, in up to thirty (30) days from date of the notice of early redemption, in full, the remaining balance of the Debentures.

#### EARLY MATURITY

VALE may determine the early maturity regardless of notice, communication, judicial or extrajudicial notification, in the event of any of the events below:

1) non-payment by Biopalma on the due date of the principal, of Compensation or any other obligation;

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2) non-compliance of any obligation in the Deed, failing to be solved within ten (10) days 3) if Biopalma present any guaranty assume, as a whole or in part, any

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financial obligation, or of any nature, from any party or authorize any Subsidiary, direct or indirect, to offer any guaranty or assume any obligation in this agreement, except with VALE's prior written approval;

4) non-compliance by Biopalma or any of its Affiliates or Subsidiaries with any obligation or condition in any other agreement they are parties in, unresolved within thirty (30) calendar days, except those in lines (a) and (b) above which shall not be subject to any resolution term;

5) failure to renew, cancel, revoke, or suspend for a period exceeding thirty (30) days from the date of the event, authorizations and licenses, including environmental and those granted by regulation entities, required to build, operate and maintain its Project and those of its Affiliates and Subsidiaries;

6) amendment, suspension, cancellation, termination or representation of nullity or unenforceability, as a whole or in part of the Deed, without VALE's prior written consent;

7) file for judicial recovery or composition with creditors of the request for extrajudicial recovery filed by Biopalma, or any of its Affiliates or Subsidiaries;

8) request of termination, liquidation, dissolution, insolvency, bankruptcy, bankruptcy out of legal terms or Biopalma's bankruptcy filed by third parties, or its Affiliates or Subsidiaries;

9) failure to obtain or renew any approval, permit, registration, or governmental authorization required to have Biopalma comply with obligations set forth in the Deed;

10) any Relevant Adverse Impact;

11) any action, arbitration or administrative procedure against Biopalma or its Affiliates or Subsidiaries which, at Vale's discretion, is likely to cause a Relevant Adverse Impact as well as pledge of any of Biopalma's assets in amount exceeding R\$ 500,000.00;

12) any action, arbitration or administrative or judicial procedure related to environmental issues;

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13) reduction of the capital stock of Biopalma, without VALE's prior approval;

14) early termination of any financial obligation to which Biopalma, its Affiliates or Subsidiaries are subject to, in domestic or international market, individually or jointly, exceeding R\$ 500,000.00;

15) legitimate protest of titles against Biopalma or its Affiliates or Subsidiaries, individually or jointly, exceeding R\$ 200,000.00, except when within thirty (30) calendar days from said protest, (i) it is validly proven by Biopalma that the protest was based on mistake or bad faith; (ii) the protest was cancelled or suspended, or, (iii) sufficient guaranties were presented in court;

16) if VALE or its Controller is no longer a shareholder of Biopalma; and

17) any corporate reorganization of Biopalma, or any of its Affiliates or Subsidiaries.

**Nature and reasons for the operation  
/ other relevant Information**

Available interest rate: Libor 6M + 4.5% per year

The purpose of the operation is to finance investments related to cultivation, production, and trading of palm oil. 2 (two) debentures were issued: 03/17/2011 (1st series of 1st issue), 08/01/2011 (2nd series, 1st issue), and 10/28/2011 (2nd issue). The amount reported above corresponds to the sum of the 2 issues.

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<b>Name of related party</b>	VLI S.A.
<b>Date of transaction</b>	12/22/2011
<b>Amount (R\$)</b>	0.00
<b>Current balance (R\$)</b>	Not applicable
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	One year, automatically renewable for equal periods.
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.000
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Technical Cooperation Agreement which object is the development of actions by the parties aiming deployment, in VLI's railroad operations, within the scope of the management program known as VPS Vale Production System.
<b>Guaranties and insurance</b>	Not applicable
<b>Conditions of termination or expiration</b>	Non-compliance by the other party with any of the contractual obligations, except if the Infringing Party fails to resolve the non-compliance within sixty (60) days upon receipt of notice by the Non-Infringing Party in this sense.
	If the other Party files for insolvency, bankruptcy of judicial or extrajudicial recovery;
	Change in direct or indirect shareholding control of either Party;
	Evidence of government authority act, administration act, act of God or force majeure, that prevents performance of the Agreement for more than six (6) months.
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	VLI S.A.
<b>Date of transaction</b>	12/30/2011
<b>Amount (R\$)</b>	0.00
<b>Current balance (R\$)</b>	Vale S.A will monthly calculate the costs engaged in each support process run on behalf of VLI S.A and its subsidiaries.
<b>Amount of related party</b>	Not applicable

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<b>Duration</b>	Effective for two (2) years, renewable automatically for successive twelve (12) month periods.
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.000
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Cooperation Agreement for Support Process and Sharing Costs (CSC).
<b>Guaranties and insurance</b>	Not applicable
<b>Conditions of termination or expiration</b>	VLI, and its subsidiaries, intend to enjoy the opportunity of centralizing their support processes in the administrative structure developed by Vale, thus enjoying standardization, control, scale gains and increased efficiency in these activities, in order to optimize efficiency of these activities, while reducing costs.
	There is no value addition to Vale, that is not aiming profits or compensations with support processes, limiting to transfer costs directly related to the use of Vale's infrastructure to the companies that give rise to the use demand.
	Note: Vale S.A. will monthly find costs disbursed in each of the support procedures ran on behalf of VLI S.A. and its subsidiaries.
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	VLI S.A.
<b>Date of transaction</b>	12/30/2011
<b>Amount (R\$)</b>	3,361,251.02
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	1 year, effective on the date of signature, renewable upon contractual amendment executed by the Parties contractual, noting that such agreement has already terminated..
<b>Loan or other type of debt</b>	NO
<b>Interest rate</b>	0.000



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<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Provision of technical services by VALE to VLI and its subsidiaries or affiliates, through the Technical Service System Servtec, including the following: (i) provision of technical services for the development of VLI projects, and (ii) studies on operational and technical support improvement for VLI's railroad and port operations.
<b>Guaranties and insurance</b>	Not applicable
<b>Conditions of termination or expiration</b>	<p>If the other Party files for bankruptcy of judicial or extrajudicial recovery;</p> <p>Act of God or force majeure duly evidenced, that prevents performance of services for more than 90 days;</p> <p>If fines applied to the other Party sum 10%.</p> <p>Non-compliance with any of the contractual obligations by the Infringing Party that is not resolved within thirty days upon receipt of notice by the Non-Infringing Party in this sense.</p> <p>Change in direct or indirect shareholding control of either Party</p>
<b>Nature and reasons for the operation / other relevant Information</b>	
<b>Name of related party</b>	VLI S.A.
<b>Date of transaction</b>	7/1/2013
<b>Amount (R\$)</b>	R\$243,010,000.00
<b>Current balance (R\$)</b>	R\$254,563,174.39
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	3/31/2014
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	110%
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Debt confession by converting AFACs into loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Vale may automatically enforce it by the whole value of the Loan, added with contractual fees, under the following circumstances:

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- (i) VLI failure to make the payment of any amount due on the dates agreed in the agreement for a period of more than 5 (five) working days, starting on the date of default.
  
- (ii) Vale no longer holds, directly or indirectly, the totality of shares issued by VLI, except for shares eventually held by members of VLI managing bodies.
  
- (iii) VLI fails to comply with any of the contractual obligations.
  
- (iv) any statement given by VLI is proven to be false or misleading in any material aspect, when given or provided and, if subject to remediation, if it is not cured for a period of more than 30 (thirty) days after Vale's notification.
  
- (v) if VLI's judicial or extrajudicial recovery, bankruptcy, or civil insolvency is determined or requested, and its effects are not suspended within thirty (30) days.
  
- (vi) VLI admits in writing its inability to pay for its debts in general.
  
- (vii) there is judicial or administrative measure determining constriction or blocking of substantial portion of the assets of VLI and its effects are not suspended within thirty (30) days.
  
- (viii) VLI suspends its activities for more than 30 (thirty) days, restricting its payment capacity.
  
- (ix) there is any material change in the business or financial conditions of VLI, at Vale's sole discretion, provided that duly grounded.
  
- (x) If VLI fails to comply with, at the appropriate date, its payment obligations arising out of other operations entered with Vale, provided that the total debt sums an amount equal or higher than R\$1,000,000.00 and cause the effective early maturity of corresponding operations.

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(xi) the agreement is no longer *pari passu* regarding other financial obligations of VLI (current and future), except for those with legal priority.

(xii) any term of the agreement or any other document provided by or on behalf of VLI, under or related to this agreement: i) is no longer valid and binding or applicable to VLI; or ii) is no longer in full force and effect; or iii) has its validity or applicability questioned by any of the parties.

Except for the case in item (ii) above, when VLI must pay the total value due in 30 days from Vale's notification, under the other circumstances, VLI must pay Vale the total amount due immediately upon Vale's notification.

**Nature and reasons for the operation / other relevant Information**

Available interest rate: 110% of CDI.

This is a loan between companies to cover cash flow needs. Vale is creditor in this operation.

Amendment to extend the term executed on 1/15/2014.

<b>Name of related party</b>	VLI S.A.
<b>Date of transaction</b>	12/26/2013
<b>Amount (R\$)</b>	R\$302,326,401.66
<b>Current balance (R\$)</b>	R\$302,695,672.49
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	3/31/2014
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	0
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Debt confession by converting AFACs into loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	Vale may automatically enforce it by the whole value of the Loan, added with contractual fees, under the following circumstances:  (i) VLI failure to make the payment of any amount due on the dates agreed in the agreement for a period of more than 5 (five) working days, starting on the date of default.

- (ii) Vale no longer holds, directly or indirectly, the totality of shares issued by VLI, except for shares eventually held by members of VLI managing bodies.
- (iii) VLI fails to comply with any of the contractual obligations.
- (iv) any statement given by VLI is proven to be false or misleading in any material aspect, when given or provided and, if subject to remediation, if it is not cured for a period of more than 30 (thirty) days after Vale's notification.
- (v) if VLI's judicial or extrajudicial recovery, bankruptcy, or civil insolvency is determined or requested, and its effects are not suspended within thirty (30) days.
- (vi) VLI admits in writing its inability to pay for its debts in general.
- (vii) there is judicial or administrative measure determining constriction or blocking of substantial portion of the assets of VLI and its effects are not suspended within thirty (30) days.
- (viii) VLI suspends its activities for more than 30 (thirty) days, restricting its payment capacity.
- (ix) there is any material change in the business or financial conditions of VLI, at Vale's sole discretion, provided that duly grounded.
- (x) If VLI fails to comply with, at the appropriate date, its payment obligations arising out of other operations entered with Vale, provided that the total debt sums an amount equal or higher than R\$1,000,000.00 and cause the effective early maturity of corresponding operations.

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(xi) the agreement is no longer *pari passu* regarding other financial obligations of VLI (current and future), except for those with legal priority.

(xii) any term of the agreement or any other document provided by or on behalf of VLI, under or related to this agreement: i) is no longer valid and binding or applicable to VLI; or ii) is no longer in full force and effect; or iii) has its validity or applicability questioned by any of the parties.

Except for the case in item (ii) above, when VLI must pay the total value due in 30 days from Vale's notification, under the other circumstances, VLI must pay Vale the total amount due immediately upon Vale's notification.

**Nature and reasons for the operation / other relevant Information**

Available interest rate: 110% of CDI.

This is a loan between companies to cover cash flow needs. Vale is creditor in this operation.

<b>Name of related party</b>	VLI Operações Portuárias S.A. - VOP
<b>Date of transaction</b>	9/18/2013
<b>Amount (R\$)</b>	R\$72,573,329.30
<b>Current balance (R\$)</b>	R\$74,635,433.64
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	3/31/2014
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	0
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>Vale may automatically enforce it by the whole value of the Loan, added with contractual fees, under the following circumstances:</p> <p>(i) VLI failure to make the payment of any amount due on the dates agreed in the agreement for a period of more than 5 (five) working days, starting on the date of default.</p> <p>(ii) Vale no longer holds, directly or indirectly, the totality of shares issued by VLI, except for shares eventually held by members of VLI managing bodies.</p>

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- (iii) VLI fails to comply with any of the contractual obligations.
  
- (iv) any statement given by VLI is proven to be false or misleading in any material aspect, when given or provided and, if subject to remediation, if it is not cured for a period of more than 30 (thirty) days after Vale's notification.
  
- (v) if VLI's judicial or extrajudicial recovery, bankruptcy, or civil insolvency is determined or requested, and its effects are not suspended within thirty (30) days.
  
- (vi) VLI admits in writing its inability to pay for its debts in general.
  
- (vii) there is judicial or administrative measure determining constriction or blocking of substantial portion of the assets of VLI and its effects are not suspended within thirty (30) days.
  
- (viii) VLI suspends its activities for more than 30 (thirty) days, restricting its payment capacity.
  
- (ix) there is any material change in the business or financial conditions of VLI, at Vale's sole discretion, provided that it is duly grounded.
  
- (x) If VLI fails to comply with, at the appropriate date, its payment obligations arising out of other operations entered with Vale, provided that the total debt sums an amount equal or higher than R\$1,000,000.00 and cause the effective early maturity of corresponding operations.
  
- (xi) the agreement is no longer *pari passu* regarding other financial obligations of VLI (current and future), except for those with legal

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priority.

(xii) any term of the agreement or any other document provided by or on behalf of VLI, under or related to this agreement: i) is no longer valid and binding or applicable to VLI; or ii) is no longer in full force and effect; or iii) has its validity or applicability questioned by any of the parties.

**Nature and reasons for the operation / other relevant Information**

Available interest rate: 110% of CDI.

This is a loan between companies to cover cash flow needs. Vale is creditor in this operation.

Amendment to extend the term executed on 1/15/2014

<b>Name of related party</b>	VLI S.A.
<b>Date of transaction</b>	10/1/2013
<b>Amount (R\$)</b>	4,073,553.62
<b>Current balance (R\$)</b>	0.00
<b>Amount of related party</b>	4,073,553.62
<b>Duration</b>	360 days
<b>Loan or other type of debt</b>	No
<b>Interest rate</b>	0.00
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Provision of Technical Services considering that Vale has a qualified staff to prepare, accompany and execute large size and complex projects, especially compliant with the expansion and improvement of the port and railroad logistics. The value of the agreement is estimated and executed upon VLI's request.
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	(i) Non-compliance of any contractual obligations by the other party, except when non-compliance is solved within sixty (60) days after receipt of the relevant notice by the non-default party;  (ii) Petition or declaration of bankruptcy or liquidation, or judicial or extrajudicial recovery by the other party; and

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(iii) In the event of an act of God or force majeure regularly proved, that comes to stop the execution of this Contract for more than six (6) months.

### Nature and reasons for the operation / other relevant Information

<b>Name of related party</b>	Tecnored Desenvolvimento Tecnológico S.A.
<b>Date of transaction</b>	9/4/2013
<b>Amount (R\$)</b>	R\$10,000,000.00
<b>Current balance (R\$)</b>	R\$10,366,861.01
<b>Amount of related party</b>	Not applicable
<b>Duration</b>	9/4/2014
<b>Loan or other type of debt</b>	YES
<b>Interest rate</b>	100% CDI + 2.25% per year
<b>Relationship with the Issuer</b>	Subsidiary
<b>Purpose of the contract</b>	Loan
<b>Guaranties and insurance</b>	None
<b>Conditions of termination or expiration</b>	<p>Vale may automatically enforce it by the whole value of the Loan, added with contractual fees, under the following circumstances:</p> <p>(i) Tecnored failure to make the payment of any amount due on the dates agreed in the agreement for a period of more than 5 (five) working days, starting on the date of default.</p> <p>(ii) Vale no longer holds, directly or indirectly, the totality of shares issued by Tecnored, except for shares eventually held by members of TECNORED managing bodies.</p> <p>(iii) TECNORED fails to comply with any of the contractual obligations.</p> <p>(iv) any statement given by TECNORED is proven to be false or misleading in any material aspect, when given or provided and, if subject to remediation, if it is not cured for a period of more than 30 (thirty) days after Vale's notification.</p> <p>(v) if TECNORED's judicial or extrajudicial recovery, bankruptcy, or civil insolvency is determined or requested, and its effects are not</p>



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suspended within thirty (30) days.

(vi) TECNORED admits in writing its inability to pay for its debts in general.

(vii) there is judicial or administrative measure determining constriction or blocking of substantial portion of the assets of TECNORED and its effects are not suspended within thirty (30) days.

(viii) TECNORED suspends its activities for more than 30 (thirty) days, restricting its payment capacity.

(ix) there is any material change in the business or financial conditions of TECNORED, at Vale's sole discretion, provided that duly grounded.

(x) If TECNORED fails to comply with, at the appropriate date, its payment obligations arising out of other operations entered with Vale, provided that the total debt sums an amount equal or higher than R\$1,000,000.00 and cause the effective early maturity of corresponding operations.

(xi) the agreement is no longer *pari passu* regarding other financial obligations of TECNORED (current and future), except for those with legal priority.

(xii) any term of the agreement or any other document provided by or on behalf of TECNORED, under or related to this agreement: i) is no longer valid and binding or applicable to TECNORED; or ii) is no longer in full force and effect; or iii) has its validity or applicability questioned by any of the parties.

**Nature and reasons for the operation / other relevant Information**

Available interest rate: 100% of CDI. + 2.25% per year

This is a loan between companies to cover cash flow needs. Vale is creditor in this operation.

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**16.3 Identification of measures taken to address the conflict of interest and demonstration of the strictly commutative nature of conditions agreed upon or appropriate compensation payment**

As mentioned in item 16.1, Vale conducts transactions with related parties in order to always best serve its interests and those of its shareholders.

Transactions concluded with related parties are supported by prior, careful evaluations of the terms therein, so that they take place under strictly equitable conditions, obeying the normal market prices and conditions. Thus, transactions with related parties do not generate any undue benefits or harm to the parties involved.

To check the equitable nature of operations with related parties, the Company reviews the financial viability of each operation vis-à-vis similar market transactions between unrelated parties. The Company uses comparative analysis methods.

Transactions with related parties of the Company may, in general, be divided into: (i) Operational transactions, and (ii) Financial transactions.

Within the operational part of its activities, Vale performs a substantial volume of transactions with its wholly owned subsidiaries, subsidiaries and companies under joint control with third parties, in view of its policy of integration of its activities in the production and commercial chain. Besides the extraction of minerals, Vale invests heavily in activities related to transport, logistics, and energy services and supplies essential to achieving its corporate purpose. The Company's investments in the logistics segment are based on the transport needs for mining operations and for other products sold to customers. Additionally, Vale invests in power generation to meet its own internal needs, in order to reduce costs and minimize risks due to problems of energy supply. In this context, several operational contracts have been signed between Vale and members of companies in its group, always taking care to observe fair and balanced terms and avoid discrepancies with market conditions, as required by Corporate and Tax laws.

With respect to transactions of a financial nature, Vale seeks continuously and energetically to find the best options available in local and international markets, with a view to securing or investing resources. Overall, investments are undertaken in order to maintain the liquidity of the company available for its investments coupled with a conservative policy regarding the assuming of credit risk of counterparties, with a focus on maintaining its assets in first-tier banks.

Table of Contents**17.1 Information about the capital stock**

Date of authorization or approval	Value of the Capital (R\$)	Deadline for payment	Number of common shares	Number of preferred shares	Total number of shares
<b>Class of capital</b>	<b>Issued capital</b>				
18/May/2011	75,000,000,000.00		3,256,724,482	2,108,579,618	5,365,304,100
<b>Capital stock by class of share</b>			Other securities convertible into shares		
<b>Class of preferred share</b>	<b>Number of shares</b>	<b>Denomination</b>	<b>Conditions for conversion</b>		
Preferred Class A	2,108,579,606				
Preferred Class E	12				
<b>Class of capital</b>	<b>Subscribed capital</b>				
18/May/2011	75,000,000,000.00		3,256,724,482	2,108,579,618	5,365,304,100
<b>Capital stock by class of share</b>			Other securities convertible into shares		
<b>Class of preferred share</b>	<b>Number of shares</b>	<b>Denomination</b>	<b>Conditions for conversion</b>		
Preferred Class A	2,108,579,606				
Preferred Class E	12				
<b>Class of capital</b>	<b>Paid-in capital</b>				
18/May/2011	75,000,000,000.00		3,256,724,482	2,108,579,618	5,365,304,100
<b>Capital stock by class of share</b>			Other securities convertible into shares		
<b>Class of preferred share</b>	<b>Number of shares</b>	<b>Denomination</b>	<b>Conditions for conversion</b>		
Preferred Class A	2,108,579,606				
Preferred Class E	12				

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<b>Class of capital</b>	<b>Authorized capital</b>			
30/Aug/2007	0.00	3,600,000,000	7,200,000,000	10,800,000,000
<b>Capital stock by class of share</b>			<b>Other securities convertible into shares</b>	
<b>Class of preferred share</b>	<b>Number of shares</b>	<b>Denomination</b>	<b>Conditions for conversion</b>	
Preferred class A	7,200,000,000			

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**17.2 Increases in the capital stock**

<b>Resolution date</b>	<b>Corporate body that ruled the increase</b>	<b>Issue date</b>	<b>Total amount of the issue (R\$)</b>	<b>Type of increase</b>	<b>Common shares (number)</b>	<b>Preferred shares (number)</b>	<b>Total shares (number)</b>	<b>Subscription / Previous capital</b>	<b>Issue price</b>
18/May/2011	Board of Directors	18/May/2011	25,000,000,000.00	Without issue of shares	0	0	0	0.00000000	0.00
<b>Criteria for determining the value of the issue</b>		N/A							
<b>Type of payment</b>		Capitalization of part of the expansion/investments reserve, the operational results/share conversion reserve, and part of the incentives reserve.							

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**17.3 Information on stock splits, reverse splits, and stock bonuses**

**Justification for not giving information on this item:**

There were no stock splits, reverse splits, or bonuses in the last three fiscal years.

**17.4 Information on reductions in the capital stock**

**Justification for not giving information on this item:**

There was no reduction in the capital stock of the company in the last three fiscal years.

**17.5 Other relevant information**

**Additional information about securities convertible to shares**

The mandatory convertible notes belonging to the Series VALE-2012 and Series VALE.P-2012 issued on July 13, 2009 by Vale Capital II matured on June 15, 2012.

The notes in the amount of US\$292,445,150 belonging to Series VALE-2012, yielded interest of 6.75% per year, paid quarterly. At their maturity, on June 15, 2012, the Series VALE-2012 notes were exchanged for American Depositary Shares (ADS), each ADS representing one common share issued by Vale. The exchange rate was 2.7082 ADSs representing common shares for each of VALE-2-12's notes.

The notes in the amount of US\$649,213,250 belonging to the Series VALE.P-2012, yielded interest of 6.75% per year, paid quarterly. At their maturity, on June 15, 2012, the Series VALE.P-2012 notes were exchanged for ADS, each ADS representing one preferred class A share issued by Vale. The exchange rate was 3.0993 ADSs representing ordinary shares for each of VALE-P-2012 series' notes. The ADSs for which the notes were exchanged represent a total of 15,836,884 ordinary shares, equivalent to 1.3% of the common shares in circulation, and the VALE.P-2012 series' notes represent a total of 40,241,968 preferential shares of class A, the equivalent to 2.2% of the preferential shares in circulation.



Table of Contents**18.1. Share rights**

<b>Share types or CDA</b>	<b>Common</b>
<b>Tag along</b>	80.000000
<b>Dividend Rights</b>	Under Vale's Bylaws and the applicable legislation, owners of common shares will have the right to receive dividends proportionate to their interest in the capital stock, after distribution of dividends to holders of preferred shares. According to Article 44 of Vale's Bylaws, at least 25% (twenty-five percent) of the annual net profits, adjusted under the law, will be assigned to the payment of the mandatory dividend to all Vale's shareholders.
<b>Voting rights</b>	Full
<b>Convertibility</b>	No
<b>Right to reimbursement of capital</b>	Yes
<b>Description of the characteristics of the reimbursement of capital</b>	Shareholders who hold common shares will have the right to the reimbursement of the value of their shares according to the provisions set forth in the applicable law, according to the terms and conditions established.
<b>Restrictions regarding outstanding shares</b>	No
<b>Circumstances where guaranteed rights of said securities may be altered</b>	Rights guaranteed to common shares that are not determined by the applicable law may be altered by means of an amendment of the Bylaws, approved at the Extraordinary General Meeting that can only be held in the 1st instance, with the presence of the shareholders representing at least 2/3 of the voting capital, and in a second instance with any number of shareholders present. Changes shall be approved based on quorums and conditions set forth by the Law of Joint Stock Company. It is also stressed that in accordance with article 7 of the bylaws, special class preferred shares shall have the right of veto over any modification of rights assigned to types and classes of shares issued by the Company, as well as any modification of article 7, or any other rights granted by the bylaws to special class preferred shares.
<b>Other Relevant Characteristics</b>	There are no restrictions regarding outstanding common shares issued by Vale. For information about restrictions to Vale's stock trading by the involved individuals, see description of our Negotiation Policy in item 20 on this Reference Form. All other characteristics of common shares issued by the Company that we believe are relevant were described on items above.
<b>Share types or CDA</b>	<b>Preferred</b>
<b>Class of preferred shares</b>	Class A Preferred
<b>Tag along</b>	0.000000
<b>Dividend rights</b>	Class A preferred shares have the following rights: a) priority in receiving dividends, to be calculated in the form of Company bylaws, corresponding to (i) at least 3% of the net worth of the share based on the Financial Statements that served as a reference for the payment of dividends or (ii) 6% calculated on the part of the capital formed by each class of share, whichever of them is greater; (ii) the right to participate in profit sharing on equal terms with the common shares, once these have been guaranteed a dividend equal to the minimum priority; and (iii) participation in any premiums, on equal terms with the common shares, maintaining the priority for the distribution of dividends. According to the Vale Bylaws, at least 25% of the annual net profits, adjusted under the law, will be assigned to the payment of the mandatory dividend to the company's shareholders.
<b>Voting rights</b>	Restricted.
<b>Description of restricted vote</b>	Preferred shares class A will have the same political rights <del>the</del> common shares, with the exception of voting for the election of members of the Board of Directors, with the qualification set forth in §§ 2 and 3 of article 11 of the Company bylaws, as well as the right to elect and dismiss a member of the fiscal Council and his Deputy. Preferred shares will exercise full and unrestricted right to vote if the Company no longer pays, for a period of three (3)



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	consecutive financial years, the minimum dividends assured to holders of preferred shares, to which they have a right under the terms above.
<b>Convertibility</b>	No
<b>Right to reimbursement of capital</b>	No
<b>Restrictions regarding outstanding shares</b>	No
<b>Circumstances where guaranteed rights of said securities may be altered</b>	The rights guaranteed to the class A preferred shares that are not determined by the applicable law may be altered by means of an amendment of the bylaws, approved at the extraordinary General Meeting that can only be held in the 1st instance, with the presence of shareholders representing at least 2/3 of the voting capital, and the 2nd instance with any number of shareholders present. Changes shall be approved based on quorums and conditions set forth by the Law of Joint Stock Company. The effectiveness of the decision will depend on the prior approval or ratification within one year, without the possibility of extending this period, by holders of more than half of each class of preferred shares whose rights would be impaired, meeting at extraordinary meeting. It is also stressed that in accordance with article 7 of the bylaws, special class preferred shares shall have the right of veto over any modification (i) of rights assigned to types and classes of shares issued by Vale, (ii) of article 7 itself, and (iii) of other rights assigned to special class shares.
<b>Other Relevant Characteristics</b>	There are no restrictions regarding outstanding class A preferred shares issued by the Company. For information about restrictions to the Vale's stock negotiations by the involved individuals, see description of our Negotiation Policy in item 20 on this Reference Form. All the characteristics of the class A preferred shares that the Company believes are relevant were described above.
<b>Share types or CDA</b>	<b>Preferred</b>
<b>Class of preferred shares</b>	Class E Preferred
<b>Tag along</b>	0.0000000
<b>Dividend rights</b>	Special class preferred shares (golden shares) have the following rights: a) priority in receiving dividends, to be calculated in the form of the Company's bylaws, corresponding to (i) at least 3% of the net worth of the share based on the Financial Statements that served as a reference for the payment of dividends or (ii) 6% calculated on the part of the capital formed by each class of share, whichever of them is greater; (ii) the participation in profit sharing on equal terms with the common shares, once these have been guaranteed a dividend equal to the minimum priority; and (iii) participation in any premiums, on equal terms with the common shares, maintaining the priority established for the distribution of dividends. According to the Company's Bylaws, at least 25% of the annual net profits, adjusted under the law, will be assigned to the payment of the mandatory dividend to the company's shareholders.
<b>Voting rights</b>	Restricted
<b>Description of restricted vote</b>	The special class preferred shares (golden shares) have the same political rights as common shares, with the exception of voting for the election of members of the board of directors, with the qualification set out in §§ 2 and 3 of article 11 of the Company Bylaws, as well as the right to elect a member of the fiscal Council and his Deputy. Golden shares also have a right to veto on the following subjects: (I) change in corporate name; (ii) change of headquarters; (iii) change in statutory purpose regarding mining activities; (iv) liquidation of the company; (v) transfer or closing of the activities of any or all of the following stages of the company's integrated system of iron ore: (i) mineral deposits, reservoirs, mines; (ii) railroads; (iii) ports and maritime terminals; (vi) any modification of rights assigned to types and classes of shares set forth in the bylaws; and (vii) any amendment to article 7, or any rights granted to special class shares in the Bylaws.
<b>Convertibility</b>	No
<b>Right to reimbursement of capital</b>	No
<b>Restrictions regarding outstanding shares</b>	Yes

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**Description of Restriction  
Circumstances where guaranteed  
rights of said securities may be  
altered**

Special class preferred shares belong exclusively to the Union.  
The rights guaranteed to preferred shares that are not determined by the applicable law may be altered by means of an amendment of the bylaws, and approved at the extraordinary General Meeting that can only be held in the 1st instance, with the presence of shareholders representing at least 2/3 of the voting capital, and the 2nd instance with any number of shareholders present. Changes shall be approved based on quorums and conditions set forth by the Law of Joint Stock Company. It is also stressed that in accordance with article 7 of the bylaws, special class preferred shares shall have the right of veto over any modification (i) of rights assigned to types and classes of shares issued by Vale, (ii) of article 7 itself, and (iii) of other rights assigned to special class shares.

**Other Relevant Characteristics**

All the other characteristics of the special class preferred shares that the Company believes are relevant were described above.

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**18.2 Description of eventual statutory regulations which limit the right to vote of large shareholders or which cause them to hold a public offering**

There are no statutory regulations which limit the right to vote of large shareholders or which cause them to hold a public offering.

**18.3 Description of exceptions and suspensive clauses relative to ownership or political rights set forth in the bylaws**

There are no exceptions or suspensive clauses relative to ownership or political rights set forth in the Company's bylaws.

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Quarter	Securities	Type	Class	Market	Administrative entity	Traded Financial Volume (R\$)	Highest Price Listed (R\$)	Lowest Price Listed (R\$)	Lowest Price Listed (R\$)
03/31/2013	Shares	Common		Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	143.359.715	44,10	33,58	R\$ per unit
06/30/2013	Shares	Common		Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	168.873.976	36,19	28,45	R\$ per unit
09/30/2013	Shares	Common		Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	159.322.685	37,85	28,39	R\$ per unit
12/31/2013	Shares	Common		Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	166.089.368	38,47	33,20	R\$ per unit
03/31/2013	Shares	Preferred	PNA	Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	502.308.146	42,60	32,39	R\$ per unit
06/30/2013	Shares	Preferred	PNA	Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	650.070.985	34,08	26,70	R\$ per unit
09/30/2013	Shares	Preferred	PNA	Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	700.943.358	33,68	26,00	R\$ per unit
12/31/2013	Shares	Preferred	PNA	Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	664.414.961	34,44	30,47	R\$ per unit

**Fiscal Year 12/31/2012**

Quarter	Securities	Type	Class	Market	Administrative entity	Traded Financial Volume (R\$)	Highest Price Listed (R\$)	Lowest Price Listed (R\$)	Lowest Price Listed (R\$)
03/31/2012	Shares	Common		Over-the-counter	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	176,566,227	45.87	40.45	R\$ per unit
06/30/2012	Shares	Common		Over-the-counter	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	201,095,181	44.01	35.83	R\$ per unit
09/30/2012	Shares	Common		Over-the-counter	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	191,967,726	41.77	32.45	R\$ per unit

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<b>12/31/2012</b>	<b>Shares</b>	Common		Over-the-counter	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	169,190,319	42.82	35.32	R\$ per unit
<b>03/31/2012</b>	<b>Shares</b>	Preferred	PNA	Over-the-counter	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	702,448,937	43.97	38.90	R\$ per unit
<b>06/30/2012</b>	<b>Shares</b>	Preferred	PNA	Over-the-counter	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	684,874,396	42.85	34.78	R\$ per unit
<b>09/30/2012</b>	<b>Shares</b>	Preferred	PNA	Over-the-counter	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	709,188,562	40.50	32.12	R\$ per unit
<b>12/31/2012</b>	<b>Shares</b>	Preferred	PNA	Over-the-counter	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	594,453,460	41.00	34.29	R\$ per unit

**Fiscal**

**Year 12/31/2011**

<b>Quarter</b>	<b>Securities</b>	<b>Type</b>	<b>Class</b>	<b>Market</b>	<b>Administrative entity</b>	<b>Traded Financial Volume(R\$)</b>	<b>Highest Price Listed (R\$)</b>	<b>Lowest Price Listed (R\$)</b>	<b>Lowest Price Listed (R\$)</b>
03/31/2011	Shares	Common		Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	169,739,167	60.92	50.75	R\$ per unit
06/30/2011	Shares	Common		Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	159,927,701	54.40	47.22	R\$ per unit
09/30/2011	Shares	Common		Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	216,116,854	51.45	39.81	R\$ per unit
12/31/2011	Shares	Common		Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	179,141,262	46.00	38.59	R\$ per unit
03/31/2011	Shares	Preferred	PNA	Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	758,096,190	53.41	44.70	R\$ per unit
06/30/2011	Shares	Preferred	PNA	Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	625,315,346	48.30	32.15	R\$ per unit
09/30/2011	Shares	Preferred	PNA	Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	721,283,562	46.41	36.54	R\$ per unit
12/31/2011	Shares	Preferred	PNA	Stock Exchange	BM&FBOVESPA S.A. - Bolsa Valores, Mercadorias e Futuros	693,382,780	42.64	36.80	R\$ per unit

Table of Contents**18.5 Description of other securities which are not shares**

<b>Security</b>	<b>Debentures</b>
<b>Identification of security</b>	Participative Debentures (CVRDA6, CVRDB6, CVRDC6, CVRDD6)
<b>Issuing date</b>	07/08/1997
<b>Quantity (Units)</b>	388,559,056
<b>Total value (Reais)</b>	3,885,590.56
<b>Restriction to outstanding units</b>	No
<b>Convertibility</b>	No
<b>Possibility of redemption</b>	No
<b>Characteristics of Securities</b>	Single series. Registered. Not represented by certificate. Par value updated pursuant to IGP-M variation. Participative debentures are traded in secondary market together with the SND (National System of Debentures) under the management of ANDIMA (National Association of Open Market Institutions) and the operation of CETIP since October 2002. CETIP codes of the debentures are CVRDA6, CVRDB6, CVRDC6, CVRDD6. The ISIN number of the debentures is BRVALEDBS028
<b>Conditions to alter rights assured by the securities</b>	Any change in the conditions of the debentures shall depend on the approval of the debenture holders that represent the absolute majority of the outstanding debentures. The maturity of the debentures shall take place in the event of extinction of all the mining rights that are the purpose of the Deed, including also the exhaustion of the discriminated mineral reserves or the reserves that replaced them. In that case, the Issuer (Vale) binds itself to liquidate the outstanding Debentures at its par value updated according to the provisions set forth in the Deed, without Premium.
<b>Other relevant characteristics</b>	Any change in the conditions of the debentures shall depend on the approval of the debenture holders that represent the absolute majority of the outstanding debentures. The maturity of the debentures shall take place in the event of extinction of all the mining rights that are the purpose of the Deed, including also the exhaustion of the discriminated mineral reserves or the reserves that replaced them. In that case, the Issuer (Vale) binds itself to liquidate the outstanding Debentures at its par value updated according to the provisions set forth in the Deed, without Premium. Premiums due to debenture holders shall be paid every six months, on March 31 and September 30 of each year.
<b>Security</b>	<b>Securities Deposit Certificates</b>
<b>Identification of security</b>	HDS (Hong Kong Depositary Shares) 6210
<b>Issuing date</b>	12/08/2010
<b>Quantity (Units)</b>	1,037,550
<b>Total value (Reais)</b>	37,932,828.00*
<b>Restriction to outstanding units</b>	No
<b>Convertibility</b>	Yes

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<b>Convertibility condition and effects on capital stock</b>	Each HDS VALE 6210 represents one preferred share issued by the Company, and conversion has no effect on the capital stock.
<b>Possibility of redemption</b>	No.
<b>Characteristics of securities</b>	Each HDS VALE 6210 represents one preferred share issued by the Company. Total value above was based on the HDS price on 12/31/2013.
<b>Conditions to alter rights assured by the securities</b>	None
<b>Other relevant characteristics</b>	HDS 6210 are traded on the Hong Kong Stock Exchange (HKEx),

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under the tag 6210. The HDS are represented by HDR (*Hong Kong depositary receipts*) issued by the depositary, JPMorgan Chase Bank.

<b>Security</b>	<b>Securities Deposit Certificates</b>
<b>Identification of security</b>	<b>HDS (Hong Kong Depositary Shares) 6230</b>
<b>Issuing date</b>	12/08/2010
<b>Quantity (Units)</b>	31,400
<b>Total value (Reais)</b>	1.042.794,00*
<b>Restriction to outstanding units</b>	No
<b>Convertibility</b>	Yes
<b>Convertibility condition and effects on capital stock</b>	Each HDS VALE 6230 represents one preferred share issued by the Company, and conversion has no effect on the capital stock.
<b>Possibility of redemption</b>	No
<b>Characteristics of securities</b>	Each HDS VALE 6230 represents one preferred share issued by the Company. Total value based on the HDS price on 12/31/2013.
<b>Conditions to alter rights assured by the securities</b>	None.
<b>Other relevant characteristics</b>	HDS 6230 are traded on the Hong Kong Stock Exchange (HKEx), under the tag 6230. The HDS are represented by HDR ( <i>Hong Kong depositary receipts</i> ) issued by the depositary, JPMorgan Chase Bank.
<b>Security</b>	<b>Securities Deposit Certificates</b>
<b>Identification of security</b>	ADS (American Depositary Shares) VALE
<b>Issuing date</b>	03/15/2002
<b>Quantity (Units)</b>	696,140,930
<b>Total value (Reais)</b>	24.838.308.382,40*
<b>Restriction to outstanding units</b>	No
<b>Convertibility</b>	Yes
<b>Convertibility condition and effects on capital stock</b>	Each VALE ADS represents one common share issued by the Company, and conversion has no effect on the capital stock.
<b>Possibility of redemption</b>	No
<b>Characteristics of securities</b>	Each VALE ADS represents one common share issued by the Company. The number (units) above represents Vale ADS outstanding on 12/31/2013. Total value above is based on the HDS price on 12/31/2013.
	There isn't



**Conditions to alter rights assured by the securities**

**Other relevant characteristics**

VALE ADS are traded on the New York Stock Exchange under the tag VALE. The ADSs are represented by ADRs (*American depositary receipts*) issued by the depository, JPMorgan Chase Bank

**Security**

**Securities Deposit Certificates**

**Identification of security**

ADS (American Depositary Shares) VALE-P.

**Issuing date**

06/20/2000

**Quantity (Units)**

741,212,026

**Total value (Reais)**

24.296.930.212,28\*

**Restriction to outstanding units**

No

**Convertibility**

Yes

**Convertibility condition and effects on capital stock**

Each VALE-P ADS represents one preferred share issued by the Company, and conversion has no effect on the capital stock. The number (units) above represents Vale ADS outstanding on

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12/31/2013. Total value above is based on the HDS price on 12/31/2013.

<b>Possibility of redemption</b>	No
<b>Characteristics of securities</b>	Each VALE ADS represents one preferred share issued by the Company.
<b>Conditions to alter rights assured by the securities</b>	There isn t
<b>Other relevant characteristics</b>	VALE-P ADS are traded on the New York Stock Exchange under the tag VALE. The ADSs are represented by ADRs ( <i>American depositary receipts</i> ) issued by the depositary, JPMorgan Chase Bank
<b>Security</b>	<b>Debentures 8th Issuance</b>
<b>Identification of security</b>	Debentures
<b>Issuing date</b>	1/15/2014
<b>Quantity (Units)</b>	1,000,000
<b>Total value (Reais)</b>	R\$1,000,000,000.00
<b>Restriction to outstanding units</b>	No
<b>Convertibility</b>	No
<b>Possibility of redemption</b>	If early redemption is legally permitted for Debentures, under the terms of applicable legislation, including under the regulation by the National Monetary Council applicable to the redemption possibility provided for in Law 12.431, the Company may, at its sole discretion, present an optional offer for early redemption, in total or partial, for outstanding Debentures, in general or per series, with cancellation of such Debentures, to be addressed to all Debenture-holders, under equal conditions.
<b>Characteristics of securities</b>	Simple, nominal, and book debentures, with no guarantees, in 4 series, where: (i) the 1st series is comprised of 600,000 debentures, adjusted by the IPCA, with interest rate at 6.46% per year and maturity on 1/15//2021; (ii) the 2nd series is comprised of 150,000 debentures, adjusted by the IPCA, with interest rate at 6.57% per year and maturity on 1/15/2024; (iii) the 3rd series is comprised of 100,000 debentures adjusted by the IPCA, with interest rate at 6.71% per year and maturity on 1/15/2026; and (iv) the 4th series is comprised of 150,000 debentures, adjusted by the IPCA, with interest rate at 6.78% per year and maturity on 1/15/2029.
	Main Events Related to Automatic Early Maturity: I. default related to monetary obligation due to the Debenture holder under the terms in the Deed of Issuance, which is not solved within two working days from the date of default; II. any type of assignment or promise of assignment to third parties, by the Company, of any of its obligations set forth in the Deed of Issuance, as a whole or in part, except upon prior authorization by the Debenture holders representing at least 90% of the outstanding Debentures; III. liquidation, dissolution and/or extinction of the Company, except when the liquidation, dissolution and/or extinction is result of an operation that is not a Default Event, under the terms permitted by item VII in Events Related to Non-Automatic Early Maturity ; and other circumstances provided for in the Deed of Issuance.

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Main Events Related to Non-Automatic Early Maturity: I. default by the Company related to non-monetary obligation provided for in the Deed of Issuance, which is not solved within 60 days from the date of default, except when there is a specific term for cure or for any of the other Default Events (as defined in the Deed of Issuance); II. reduction of the Company capital stock, except upon prior authorization by Debenture holders representing at least the majority of outstanding Debentures; III. change to the Company corporate purpose, provided that, consequently, the Company is no longer engaged in mining activities; IV. evidence that any of the

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statements made by the Company in the Deed of Issuance is false or inaccurate in any relevant aspect; V. default by the Company or Relevant Subsidiary, which is not solved, in any contract, instrument, or document, evidencing outstanding Indebtedness (as defined in the Deed of Issuance), in amount equal or higher than R\$250,000,000.00, updated annually based on IGPM, or equivalent in other currency, provided that such default results in the effective early maturity of such Indebtedness; and other circumstances provided for in the Deed of Issuance.

Fiduciary Agent: Pentágono S.A. Distribuidora de Títulos e Valores Mobiliários. Main contractual obligations: (i) accompany the frequency in the submission of mandatory information, alerting the Debenture holders about possible omissions or inaccuracies in such information; (ii) issue opinion on the sufficiency of information in the proposals to alter the Debenture terms; (iii) request, when needed, extraordinary audits at the Company; and (iv) call, when needed, the General Meeting of Debenture holders.

**Conditions to alter rights assured by the securities** Any changes to the debenture terms will be subject to approval by debenture holders representing at least 90% of outstanding debentures.

**Other relevant characteristics** Debentures were subject to takeover carried out by the Company in Brazil, under the terms in CVM Instruction 400.

**18.6 Brazilian markets where company s securities are admitted for trading**

The main market for trading the Company s common and preferred shares is the BM&FBOVESPA Commodities and Futures Stock Exchange in São Paulo.

The debentures of the Company are recorded for trading in the secondary market through (i) the Module CETIP21 Securities, administered and operated by CETIP; and (ii) the Negotiation System for Fixed Income Securities - BOVESPAFIX, administered and operated by BM&FBOVESPA.

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**18.7 Information on class and type of securities admitted to trading in foreign markets**

The following bonds: VALE42, VALE22, (reopening), VALE22, VALE39, VALE19, CVRD36, CVRD34B, CVRD17, CVRD16, CVRD34, INCO2015, INCO2032, CVRD20 and CVRD39 were accepted for trading in the United States of America, on the New York Stock Exchange, on 09/11/2012, 04/04/2012, 1/11/2012, 11/10/2009, 09/15/2009, 11/21/2006, 11/02/2005, 11/21/2006, 01/10/2006, 01/15/2004, 08/08/2003, 09/26/2003, 05/13/2002, 09/23/2002, 09/15/2010 and 09/15/2010. The Securities Exchange Commission (SEC) is the body responsible for the administration of the New York Stock Exchange and the Bank of New York is the depository bank and custodial institution for the Bonds.

The American Depositary Shares (ADSs), represented by American Depositary Receipts (ADRs) Vale and VALE. P, were admitted to trading in the United States of America, on the New York Stock Exchange on 03/15/2002 and 06/20/2000 respectively. The ADSs, represented by ADRs, VALE3 and VALE5, have also been admitted for trading in France, on the NYSE Euronext, both on 07/21/2008. The Securities and Exchange Commission (SEC) is the body responsible for the administration of the New York Stock Exchange and the French *Autorité des Marchés Financiers* (AMF) is the entity responsible for the NYSE Euronext. The depository bank is the JPMorgan Chase Bank. Each ADS VALE or ADS VALE3 represents a common share issued by the company, and 21% of the company's common shares are linked to the ADSs VALE and VALE3. Each ADS Vale.P or ADS VALE5, represents a Class A preferred share issued by the Company, and 35% of Vale Class A preferred shares are linked to the ADSs VALE.P and VALE5.

Hong Kong Depositary Shares (HDSs), represented by Hong Kong Depositary Receipts (HDRs), 6210 and 6230 were admitted to trading in Hong Kong, on the Hong Kong Stock Exchange on 12/08/2010. The Hong Kong Securities and Futures Commission (SFC) is the body responsible for the administration of the Hong Kong Stock Exchange. The depository bank is the JPMorgan Chase Bank. Each HDR 6210 represents a common share issued by the company, and 0.03% of Vale's common shares are linked to the HDRs 6210. Each HDR 6230 represents a Class A preferred share issued by the Company and 0.001% Vale Class A preferred shares are linked to the HDRs 6230.

*Eurobond* VALE23 with maturity in 2023 was admitted to trading on the regulated market of Luxembourg, the Luxembourg Stock Exchange and the EuroMTF, on July 10, 2012. The *Commission de la Surveillance du Secteur Financier* is responsible for approval of the issue prospectus and the Bank of New York is the depository bank and custodial institution for *Eurobond* VALE23.

The *Eurobond CVRD18* with maturity in 2018 was admitted to trading on the regulated market of the Luxembourg Stock Exchange on 03/24/2010. The *Commission de la Surveillance du Secteur Financier* is responsible for approval

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of the issue prospectus and the Bank of New York is the depository bank and custodial institution for *Eurobond CVRD18*.

Trading of Bonds, American Depositary Shares and Eurobonds last year was wholly conducted abroad.

For more information about the securities admitted to trading in foreign markets, see items 18.5 and 18.10 of this Reference Form.

**18.8 Distribution public offerings made by the issuer or by third parties, including controlling companies and subsidiaries, relating to issuer's securities, during the last three financial years**

For information on public offerings of securities, see items 10.1 and 10.7 in this Reference Form.

**18.9 Description of takeover bids made by the issuer for shares issued by third parties**

Takeover to acquire shares of Vale Fertilizantes S.A.

In June, 2011, Vale announced submission to the Board of Directors of a proposal by the executive directors for a takeover of up to 100% of shares issued by the subsidiary Vale Fertilizantes, aiming to close its capital. The takeover was approved by the Board of Directors on June 30, 2011 and was registered before the Brazilian Securities Commission (CVM) on July 15, 2011.

The offer's tender was issued on November 10, 2011. The Takeover comprised the payment for shares in cash by the subsidiary Mineração Naque S.A., at R\$25.00 per share, either common or preferred shares issued by Vale Fertilizantes, corresponding to a 41% premium over the average price of preferred shares traded in the last 20 trading days prior to the disclosure of the offer, in June 2011. In December 2011, Vale concluded the Offer, resulting in the acquisition of 211,014 common shares and 82,919,456 preferred shares issued by Vale Fertilizantes, representing 83.8% of the common shares and 94.0% of preferred shares, for a total amount of R\$ 2.078 billion.

In January 2012, the Extraordinary Shareholders' Meeting at Vale Fertilizantes approved the redemption of 5,314,386 remaining outstanding shares, including common and preferred shares, representing 0.94% of the total shares of Vale Fertilizantes. Vale now holds, through subsidiaries, 100% of common and preferred shares issued by Vale Fertilizantes.

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In Item 18.4 the shares financial volume pertains to the daily trading average in each quarter.

Below is information about the securities trading volume and the highest and lowest price traded in the stock exchange in each of the quarters during the last three fiscal years, other than those referred to in item 18.4 of this Reference Form.

<b>Vale ON</b>	<b>ADS VALE</b>	<b>Daily Average Volume (US\$ Mil)</b>	<b>Highest List Price (US\$)(1)</b>	<b>Lowest List Price (US\$)(1)</b>
1st Quarter 2011		720,241	37.1	31.0
2nd Quarter 2011		555,372	34.3	29.4
3rd Quarter 2011		556,741	33.6	22.8
4th Quarter 2011		426,554	26.6	20.5
1st Quarter 2012		433,613	26.6	22.4
2nd Quarter 2012		406,662	23.9	17.9
3rd Quarter 2012		358,461	20.6	15.9
4th Quarter 2012		318,557	20.9	17.1
1st Quarter 2013		314,581	21.5	16.98
2nd Quarter 2013		303,434	18.3	12.9
3rd Quarter 2013		268,379	16.8	12.6
4th Quarter 2013		254,069	17.1	14.4

<b>Vale PNA</b>	<b>ADS VALE.P</b>	<b>Daily Average Volume (US\$ Mil)</b>	<b>Highest List Price (US\$)(1)</b>	<b>Lowest List Price (US\$)(1)</b>
1st Quarter 2011		240,922	32.5	27.0
2nd Quarter 2011		202,807	30.4	26.1
3rd Quarter 2011		221,425	30.4	21.0
4th Quarter 2011		185,228	24.9	19.6
1st Quarter 2012		171,549	25.5	21.3
2nd Quarter 2012		172,052	24.3	17.4
3rd Quarter 2012		141,719	20.1	15.7
4th Quarter 2012		125,928	20.3	16.6
1st Quarter 2013		166,244	20.9	16.2
2nd Quarter 2013		131,400	17.1	11.9
3rd Quarter 2013		111,843	14.9	11.5
4th Quarter 2013		94,476	15.3	13.3

Source: Bloomberg

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(1) Based on prices at closing





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Below is the description of other securities issued by the Company and its subsidiaries, other than those referred to in item 18.5 of this Reference Form.

<b>Identification of security</b>	BNDESPAR Debentures - Ferrovia Norte Sul and Vale Logística Carga Geral - 1st Issue
<b>Quantity</b>	66,510 debentures, at par value of R\$ 10,000.00
<b>Value</b>	R\$ 665,100,000.00
<b>Issuing date</b>	12/17/2007
<b>Restriction to outstanding units</b>	No
<b>Convertibility into shares or granting the right to subscribe or acquire issuer shares</b>	<p>The Debentures can be exchanged at any time from the first day of the 11th year from date of issue, at the free discretion of their holder, for a quantity of common shares issued by Ferrovia Norte Sul S.A. ( <u>FNS</u> ) or Vale Logística de Carga Geral S.A. ( <u>Vale Logística</u> ) that matches, in each Annual Exchange Period, the application of the percentages that range from 0.74% to 9.62% ( <u>Percentage Of Shares In The Exchange</u> ) on the number of common shares in which Ferrovia Norte Sul S.A. (FNS) capital stock is divided, as long as this value is equal to or less than R\$ 1,876,280,000.00. The debenture holders may, at their sole discretion, exchange the entirety or only part of their Debentures, and each Debenture can be exchanged for the amount of shares resulting from the division between (i) the application of the Percentage of Shares in the Exchange to the number of common shares that make up the capital of FNS, as long as this value is equal to or less than R\$ 1,876,280,000.00 and (ii) the amount of Debentures fully paid.</p>

The Percentage Of Shares In The Exchange was obtained on the basis of (i) projected economic value of FNS forecast as from the 11th year after Date Of Issue, as per cash flow projection and (ii) projected value of Nominal Unit Value as of the 11th year after Date Of Issue.

Once the Debentures are exchanged for FNS or Vale Logística controlling shares, there will be no effects on Vale's capital stock.

The number of shares issued by Vale Logística which the Debentures holders will have a right to receive at the exchange regulated will be that resulting from the multiplication of Vale Logística capital stock percentage, defined in the third clause of the first annex, by the number of shares in which Vale Logística capital stock is divided.

The debenture holders will have to choose between the exchange for FNS shares or for Vale Logística shares, provided that (i) in neither case, will the Debenture holder be able to exchange part of his debentures for FNS shares and part for Vale Logística shares; and (ii) at the time of the exchange for FNS shares, the option to exchange for Vale Logística shares will immediately be void and any blockage established may be released and vice-versa.

### **Possibility of redemption**

I. Possibilities of redemption:

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Vale must effect the early redemption of all (and nothing less than the entirety) of debentures outstanding within 30 (thirty) days of the occurrence of the following events:

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- extinction of sub-concession contract concluded between VALEC Engenharia, Construções e Ferrovias S.A. and the FNS for the administration and operation of public rail cargo transport service on the Norte-Sul Railroad, due to expiry; buy-in; termination; agreement between the parties; annulment of sub-concession or concession or declaration of nullity of the administrative bidding procedure; and
- intervention by the Licensing Authority in the sub-concession or in the concession for the administration and operation of public rail cargo transport service on the Norte-Sul Railroad conferred granted to FNS.

e) Formula for calculating value of redemption:

On the payment date of the redemption, Vale will affect the settlement of the debentures which are still outstanding, at their non-amortized nominal unit value, plus the amount capitalized but not amortized, as well as the monetary interest capitalized semi-annually on the 15th of June and December each year with a grace period of 4 years counted from the date of issue and still not amortized, and remuneration in the amount of 0.8% p.a. above the TJLP (long-term interest rate) liable until such date (the Value of Redemption ).

The Value of Redemption shall be increased by a percentage of 20% (twenty per cent) if (i) the termination of letter a above is due to the expiry of the concession or even sub-concession (ii) when the cancellation of the above-mentioned concession or sub-concession is attributable, as determined in administrative proceedings, to Vale Logística or the FNS.

**Characteristics of Securities**

I. Maturity date: 12/17/2027

II. Early maturity: Acceleration: In addition to the assumptions referred to in articles 39, 40 and 47-A of the Provisions Applicable to BNDES Agreements, debenture holders may declare all debentures to be matured in advance and require payment, by Vale, of the debt relative to the balance of debentures, plus the interest and other charges which are liable up to the date of payment in the occurrence of the following events:

- failure by Vale to fulfill any monetary obligation related to the debentures not dealt with within 10 (ten) days counted from their respective maturity date;
- failure to correct any default of any non-monetary obligation as provided in the Deed, within a forty-five-day-term.

- declaration of acceleration of any debt of Vale by reason of breach of contract which individual amount equals or exceeds R\$ 125,000,000.00 or which aggregate value, in a period of twelve (12) consecutive months, is equal to or greater than R\$ 1,000,000,000.00.
  
- the inclusion in the articles of incorporation or bylaws of Vale, FNS, or Vale Logística of any mechanism whereby a special quorum is required for a decision or approval of matters which limit or restrict control of Vale, FNS or Vale Logística by their controlling companies or, further, the inclusion in those documents, of mechanisms which lead to: restrictions on the growth capacity of Vale and FNS or their technological development; restrictions on access by Vale, FNS or Vale Logística to new markets; or restrictions on or impairment of the

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ability to pay financial obligations provided for in this Deed of Issuance.

- if the effective direct share control of Vale, FNS or Vale Logística is changed by any means, unless approved in advance by holders of debentures;
  
- acquisition by FNS or Vale Logística of controlling shareholding or shareholdings in other companies, joint ventures or consortia consisting of activities which are not complementary to the normal development of the corporate purpose of FNS or Vale Logística, characterizing deviation from FNS or Vale Logística corporate purpose, unless approved in advance by holders of debentures, representing the majority of debentures and the issuer shall call upon a Debenture Holder Meeting to be held at least in thirty (30) days, from the calling date, to discuss matters referred to above, and failure to hold such meeting due to lack of quorum in first instance shall imply tacit approval of the operation;
  
- in relation to FNS, the occurrence of any acquisition, merger, split, transformation or any other corporate reorganization, whether this reorganization be strictly corporate or performed by using relevant assets; in relation to Vale Logística, the occurrence of any acquisition (except if Vale Logística appears as acquirer in the operation and provided that the acquired company in such operation is not FNS), merger, split, transformation or any other operation or set of operations, under which a significant portion of the assets of Vale Logística are transferred to third-parties, where significant portion of assets of Vale Logística means, at a given time, 50% of all assets held by Vale Logística, and in relation to the issuer, the occurrence of corporate re-organizations which imply transferring to third parties that are not controlled by Vale, ownership of FNS or Vale Logística shares which will be the subject matter of an exchange in the terms of the Deed of Issuance, unless any of the operations referred to in this item is approved in advance by holders of debentures representing at least 50% plus one of outstanding debentures and the issuer shall call upon a Debenture Holder Meeting to be held at least in thirty (30) days, from the calling date, to discuss matters referred to above, and failure to hold such meeting due to lack of quorum in first instance shall imply tacit approval of the operation; transfer of ownership of shares issued by FNS or Vale Logística which will be the subject matter of an exchange to an issuer subsidiary should be permitted provided that the party acquiring such shares should respond, upon amendment to the Deed of Issuance, for obligations related to the exchange and the for obligations the block set forth in the Deed of Issuance; and the acquiring party should be controlled by the issuer until the maturity date;
  
- non-compliance, by Vale, of any provision concerning the interchangeability of debentures;
  
- if Vale does not support and maintain the block set forth in the Deed of Issuance, under the terms and conditions;

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- if Vale does not use the proceeds generated by the issuance for capitalization of FNS, within 3 (three) days counted from the paying up of the debentures.

III. Interest: TJLP + 0.8% per year

IV. Guarantee: None

V. In the absence of a guarantee, if the credit is secured or subordinate: Secured Credit

VI. Possible restrictions imposed on the issuer:

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- for distribution of dividends: None
  
- disposal of certain assets: Vale may dispose of any goods, if at its discretion, this act is desirable for the efficient running of its business and does not adversely affect Vale's capacity to honor its obligations in terms of the Deed of Issuance.
  
- assumption of new debt: none
  
- issuing new securities: none

VI. The fiduciary agent, indicating the key terms of the contract: none

**Conditions to alter rights assured by the securities**

Any changes to the terms of this debenture issue will depend on the approval of debenture holders representing at least 50% plus 1 debenture of outstanding debentures. For the purpose of setting up the quorum, debentures possibly belonging to Vale shall be excluded.

**Other relevant characteristics**

Debentures issued by Vale S.A., privately, which were fully subscribed by BNDES Participações S.A. Vale undertakes to maintain, for the duration of the Deed, the following indexes compiled annually through the financial statements audited by external auditors registered with the CVM (Securities Commission): a) Ratio of Debt over Adjusted EBITDA less than or equal to 4.5 (four and five tenths); and b) Ratio of Adjusted EBITDA over Interest Expenses greater than or equal to 2.0 (two).

In the event these levels are not complied with, Vale should provide, within 60 (sixty) days counted from the date of such communication, in writing to debenture holders, collateralized guarantees, accepted by the debenture holders, at a value corresponding to at least 130% (one hundred and thirty per cent) of the debt balance of debentures, unless within that period the levels above are reestablished.

<b>Security</b>	<b>Debentures BNDESPAR Debentures Ferrovia Norte Sul and Vale Logística de Carga Geral 2nd Issue</b>
<b>Quantity</b>	38,520 debentures
<b>Unit Value</b>	R\$ 10,000.00
<b>Issuing date</b>	10/15/2009
<b>Restriction to outstanding units</b>	None
<b>Convertibility into shares or granting the right to subscribe or acquire issuer shares</b>	The debentures are exchangeable against shares issued by Ferrovia Norte Sul S.A. ( <u>FNS</u> ), or Vale Logística de Carga Geral S.A. ( <u>Vale Logística</u> ), held by Vale S.A.

The Debentures can be exchanged at any time from December 18,, 2017, at the free discretion of their holder, for a quantity of common shares issued by FNS or, from the first day of the eleventh year from the Date of Issue, in a number of common shares issued by Vale Logística that matches, in each Annual Exchange Period, the application of the percentages that range from 0.73% to 5.33% ( Percentage Of Shares In The Exchange ) on the number of common shares in which Ferrovia Norte Sul S.A. (FNS) capital stock is divided, as long as this value is equal to or less than R\$ 1,876,280,000.00. The debenture holders may, at their sole discretion, exchange the entirety or only part of their Debentures, and each Debenture can be exchanged for the amount of shares resulting from the division between (i) the application of the Percentage of Shares in the Exchange to the number of common shares that make up the capital of FNS, as long as this value is equal to or less than R\$ 1,876,280,000.00 and (ii) the amount of Debentures fully paid.

The Percentage Of Shares In The Exchange was obtained on the basis of (i) projected cash flow of FNS and (ii) projected value of Nominal Unit Value as of the annual exchange periods. Once the Debentures are exchanged for FNS or Vale Logística controlling shares, there will be no



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effects on Vale's capital stock.

The number of shares issued by Vale Logística which the Debentures holders will have a right to receive at the exchange regulated will be that resulting from the multiplication of Vale Logística capital stock percentage, defined in the third clause of the First Amendment to the Deed, by the number of shares in which Vale Logística capital stock is divided.

The Debenture holders will have to choose between the exchange for FNS shares or for Vale Logística shares, provided that (i) in neither case, will the Debenture holder be able to exchange part of his debentures for FNS shares and part for Vale Logística shares; and (ii) at the time of the exchange for FNS shares, the option to exchange for Vale Logística shares will immediately be void and any blockage established may be released and vice-versa.

**Possibility of redemption**

I. Possibilities of redemption:

Vale must effect the early redemption of all (and nothing less than the entirety) of debentures outstanding within 30 (thirty) days of the occurrence of the following events:

- extinction of sub-concession contract concluded between VALEC Engenharia, Construções e Ferrovias S.A. and the FNS for the administration and operation of public rail cargo transport service on the Norte-Sul Railroad, due to expiry; buy-in; termination; agreement between the parties; annulment of sub-concession or concession or declaration of nullity of the administrative bidding procedure; and
- Intervention by the Licensing Authority in the sub-concession or in the concession for the administration and operation of public rail cargo transport service on the Norte-Sul Railroad conferred granted to FNS.

II. Formula for calculating value of redemption:

On the payment date of the redemption, Vale will affect the settlement of the debentures which are still outstanding, at their non-amortized nominal unit value, plus the amount capitalized but not amortized, as well as the monetary interest capitalized semi-annually on the 15th of June and December each year with a grace period between the Date of Issue and 6/15/2012 and still not amortized, and remuneration in the amount of 0.8% p.a. above the TJLP (long-term interest rate) liable until such date (the Value of Redemption ).

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The Value of Redemption shall be increased by a percentage of 20% (twenty per cent) if (i) the termination of letter a above is due to the expiry of the concession or even sub-concession (ii) when the cancellation of the above-mentioned concession or sub-concession is attributable, as determined in administrative proceedings, to Vale Logística or the FNS.

### Characteristics of Securities

I. Maturity date: 12/17/2027

II. Early maturity

In addition to the assumptions referred to in articles 39, 40 and 47-A of the Provisions Applicable to BNDES Agreements, debenture holders may declare all debentures to be matured in advance and require payment, by Vale, of the debt relative to the balance of debentures, plus the interest and other charges which are liable up to the date of payment in the occurrence of the following events:

- failure by Vale to fulfill any monetary obligation related to the debentures not dealt with within 10 (ten) days counted from their respective maturity date;

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- failure to correct any default of any non-monetary obligation as provided in the Deed, within a 45-day term.
  
- declaration of acceleration of any debt of Vale by reason of breach of contract which individual amount equals or exceeds R\$ 125,000,000.00 or which aggregate value, in a period of twelve (12) consecutive months, is equal to or greater than R\$ 1,000,000,000.00
  
- the inclusion in the articles of incorporation or bylaws of the issuer, FNS or Vale Logística of any mechanism whereby a special quorum is required for a decision or approval of matters which limit or restrict control of the issuer, FNS or Vale Logística by their controlling companies or, further, the inclusion in those documents, of mechanisms which lead to: (i) restrictions on the growth capacity of the issuer, FNS or Vale Logística or their technological development; (ii) restrictions on access by the issuer, FNS or Vale Logística to new markets; or (iii) restrictions on or impairment of the ability to pay financial obligations provided for in this Deed of Issuance.
  
- if the effective direct share control of Vale, FNS or Vale Logística is changed by any means, unless approved in advance by holders of debentures;
  
- acquisition by FNS or Vale Logística of controlling shareholding or shareholdings in other companies, joint ventures or consortia consisting of activities which are not complementary or not related to the normal development of the corporate purpose of FNS or Vale Logística, characterizing deviation from FNS or Vale Logística corporate purpose, unless approved in advance by holders of debentures representing the majority of debentures and the issuer shall call upon a Debenture Holder Meeting to be held at least in thirty (30) days, from the calling date, to discuss matters referred to above, and failure to hold such meeting due to lack of quorum in first instance shall imply tacit approval of the operation;
  
- in relation to FNS, the occurrence of any acquisition, merger, split, transformation or any other corporate reorganization, whether this reorganization be strictly corporate or performed by using relevant assets; in relation to Vale Logística, the occurrence of any acquisition (except if Vale Logística appears as acquirer in the operation and provided that the acquired company in such operation is not FNS), merger, split, transformation or any other operation or set of operations, under which a significant portion of the assets of Vale Logística are transferred to third-parties, where significant portion of assets of Vale Logística means, at a given time, 50% of all assets held by Vale Logística; and in relation to the issuer, the occurrence of corporate re-organizations which imply transferring to third parties that are not controlled by Vale, ownership of FNS or Vale Logística shares which will be the subject matter of an exchange in the terms of the Deed of Issuance, unless approved in advance by holders of debentures representing at least 50% plus one of outstanding debentures, and the issuer shall call upon a Debenture Holder Meeting to be held at least in thirty (30) days, from the calling date, to discuss matters referred to above, and failure to hold such meeting due to lack of quorum in first instance shall imply tacit approval of the operation; transfer of ownership of shares issued by FNS or Vale Logística which will be the subject matter of an exchange to an issuer subsidiary should be permitted provided that the party acquiring such shares should

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respond, upon amendment to the Deed of Issuance, for obligations related to the exchange and the for obligations the block set forth in the Deed of Issuance; and the acquiring party should be controlled by the issuer until the maturity date;

- non-compliance, by Vale, of any provision concerning the interchangeability of debentures

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- if Vale does not support and maintain the block referred to in the Deed of Issuance under its terms and conditions;

- if Vale does not use the proceeds generated by the issuance for capitalization of FNS, within 3 (three) days counted from the paying up of the debentures.

III. Interest: TJLP + 0.8% per year

IV. Guarantee: None

V. In the absence of a guarantee, if the credit is secured or subordinate: Secured Credit

VI. Possible restrictions imposed on the issuer:

- for distribution of dividends: None

- disposal of certain assets: Vale may dispose of any goods, if at its discretion, this act is desirable for the efficient running of its business and does not adversely affect Vale's capacity to honor its obligations in terms of the Deed of Issuance.

- assumption of new debt: none

- issuing new securities: none

VII. The fiduciary agent, indicating the key terms of the contract: none

**Conditions to alter rights assured by the securities**

Any changes to the terms of this debenture issue will depend on the approval of debenture holders representing at least 50% plus 1 debenture of outstanding debentures. For the purpose of setting up the quorum, debentures possibly belonging to Vale shall be excluded.

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### Other relevant characteristics

Debentures issued by Vale S.A., privately, which were fully subscribed by BNDES Participações S.A.

Vale undertakes to maintain, for the duration of the Deed, the following indexes compiled annually through the financial statements audited by external auditors registered with the CVM (Securities Commission): a) Ratio of Debt over Adjusted EBITDA less than or equal to 4.5 (four and five tenths); and b) Ratio of Adjusted EBITDA over Interest Expenses greater than or equal to 2.0 (two).

In the event these levels are not complied with, Vale should provide, within 60 (sixty) days counted from the date of such communication, in writing to debenture holders, collateralized guarantees, accepted by the debenture holders, at a value corresponding to at least 130% (one hundred and thirty per cent) of the debt balance of debentures, unless within that period the levels above are reestablished.

<b>Identification of security</b>	<b>BNDESPAR Debentures   Ferrovia Norte Sul and Vale Logística de Carga Geral   3rd Issue</b>
<b>Quantity</b>	35,712 debentures
<b>Value</b>	R\$10,000.00
<b>Issuing date</b>	6/9/2011
<b>Restriction to outstanding units</b>	No
<b>Convertibility into shares or granting the right to subscribe or acquire issuer shares</b>	Debentures are convertible into shares issued by Ferrovia Norte Sul S.A. ( <u>FNS</u> ) or Vale Logística de Carga Geral S.A. ( <u>Vale Logística</u> ), held by Vale S.A.

The Debentures can be exchanged at any time from December 18,, 2017, at the free discretion of their holder, for a quantity of common shares issued by FNS or, from the first day of the eleventh year from the Date of Issue, in a number of common shares issued by Vale Logística that matches, in each Annual Exchange Period, the application of the percentages that range from

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1.13% to 5.93% ( Percentage Of Shares In The Exchange ) on the number of common shares in which FNS capital stock is divided, as long as this value is equal to or less than R\$ 1,876,280,000.00. The debenture holders may, at their sole discretion, exchange the entirety or only part of their Debentures, and each Debenture can be exchanged for the amount of shares resulting from the division between (i) the application of the Percentage of Shares in the Exchange to the number of common shares that make up the capital of FNS, as long as this value is equal to or less than R\$ 1,876,280,000.00 and (ii) the amount of Debentures fully paid.

The Percentage Of Shares In The Exchange was obtained on the basis of (i) projected cash flow of FNS and (ii) projected value of Nominal Unit Value as of the annual exchange periods. As debentures are to be converted into shares issued by the controlled company FNS or Vale Logística, there will be no effects on Vale's capital stock.

The number of shares issued by Vale Logística which the Debentures holders will have a right to receive at the exchange regulated will be that resulting from the multiplication of Vale Logística capital stock percentage, defined in the third clause of the Deed, by the number of shares in which Vale Logística capital stock is divided.

The debenture holders will have to choose between the exchange for FNS shares or for Vale Logística shares, provided that (i) in neither case, will the Debenture holder be able to exchange part of his debentures for FNS shares and part for Vale Logística shares; and (ii) at the time of the exchange for FNS shares, the option to exchange for Vale Logística shares will immediately be void and any blockage established may be released and vice-versa.

**Possibility of redemption**

I. Possibilities of redemption:

Vale must effect the early redemption of all (and nothing less than the entirety) of debentures outstanding within 30 (thirty) days of the occurrence of the following events:

- extinction of sub-concession contract concluded between VALEC Engenharia, Construções e Ferrovias S.A. and FNS for the administration and operation of public rail cargo transport service on the Norte-Sul Railroad, due to expiry; buy-in; termination; agreement between the parties; annulment of sub-concession or concession or declaration of nullity of the administrative bidding procedure; and
- intervention by the Licensing Authority in the sub-concession or in the concession for the administration and operation of public rail cargo transport service on the Norte-Sul Railroad conferred granted to FNS.

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### II. Formula for calculating value of redemption:

On the payment date of the redemption, Vale will affect the settlement of the debentures which are still outstanding, at their non-amortized nominal unit value, plus the amount capitalized but not amortized, as well as the monetary interest capitalized semi-annually on the 15th of June and December each year with a grace period between the Date of Issue and 6/15/2012 and still not amortized, and remuneration in the amount of 0.8% p.a. above the TJLP (long-term interest rate) liable until such date (the Value of Redemption ).

The Value of Redemption shall be increased by a percentage of 20% (twenty per cent) if (i) the termination of letter a above is due to the expiry of the concession or even sub-concession (ii) when the cancellation of the above-mentioned concession or sub-concession is attributable, as determined in administrative proceedings, to Vale Logística or the FNS.

### Characteristics of Securities

I. Maturity date: 12/17/2027

II. Early maturity:



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In addition to the assumptions referred to in articles 39, 40 and 47-A of the Provisions Applicable, to BNDES Agreements, debenture holders may declare all debentures to be matured in advance and require payment, by Vale, of the debt relative to the balance of debentures, plus the interest and other charges which are liable up to the date of payment in the occurrence of the following events:

- failure by Vale to fulfill any monetary obligation related to the debentures not dealt with within 10 (ten) days counted from their respective maturity date;
- failure to correct any default of any non-monetary obligation as provided in the Deed, within a forty-five-day-term.
- declaration of acceleration of any debt of Vale by reason of breach of contract which individual amount equals or exceeds R\$ 125,000,000.00 or which aggregate value, in a period of twelve (12) consecutive months, is equal to or greater than R\$ 1,000,000,000.00;
- the inclusion in the articles of incorporation or bylaws of the issuer, FNS or Vale Logística of any mechanism whereby a special quorum is required for a decision or approval of matters which limit or restrict control of the issuer, FNS or Vale Logística by their controlling companies or, further, the inclusion in those documents, of mechanisms which lead to:
  - (i) restrictions on the growth capacity of the issuer, FNS or Vale Logística or their technological development;
  - (ii) restrictions on access by the issuer, FNS or Vale Logística to new markets; or
  - (iii) restrictions on or impairment of the ability to pay financial obligations provided for in this Deed of Issuance;
- if the effective share control of Vale, FNS or Vale Logística is changed by any means, unless approved in advance by holders of debentures;
- acquisition by FNS or Vale Logística of controlling shareholding or shareholdings in other companies, joint ventures or consortia consisting of activities which are not complementary or not related to the normal development of the corporate purpose of FNS or Vale Logística, characterizing deviation from

FNS or Vale Logística corporate purpose, unless approved in advance by holders of debentures representing the majority of debentures and the issuer shall call upon a Debenture Holder Meeting to be held at least in thirty (30) days, from the calling date, to discuss matters referred to above, and failure to hold such meeting due to lack of quorum in first instance shall imply tacit approval of the operation;

- in relation to FNS, the occurrence of any acquisition, merger, split, transformation or any other corporate reorganization, whether this reorganization be strictly corporate or performed by using relevant assets; in relation to Vale Logística, the occurrence of any acquisition (except if Vale Logística appears as acquirer in the operation and provided that the acquired company in such operation is not FNS), merger, split, transformation or any other operation or set of operations, under which a significant portion of the assets of Vale Logística are transferred to third-parties, where significant portion of assets of Vale Logística means, at a given time, 50% of all assets held by Vale Logística; and in relation to the issuer, the occurrence of corporate re-organizations which imply transferring to third parties that are not controlled by Vale,

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ownership of FNS or Vale Logística shares which will be the subject matter of an exchange in the terms of the Deed of Issuance, unless any of the operations referred to in this item is approved in advance by holders of debentures representing at least 50% plus one of outstanding debentures and the issuer shall call upon a Debenture Holder Meeting to be held at least in thirty (30) days, from the calling date, to discuss matters referred to above, and failure to hold such meeting due to lack of quorum in first instance shall imply tacit approval of the operation; transfer of ownership of shares issued by FNS or Vale Logística which will be the subject matter of an exchange to an issuer subsidiary should be permitted provided that the party acquiring such shares should respond, upon amendment to the Deed of Issuance, for obligations related to the exchange and the for obligations the block set forth in the Deed of Issuance; and the acquiring party should be controlled by the issuer until the maturity date;

- non-compliance, by Vale, of any provision concerning the interchangeability of debentures;
- if Vale does not support and maintain the block set forth in the Deed of Issuance, under the terms and conditions;
- if Vale does not use the proceeds generated by the issuance for capitalization of FNS, within 3 (three) days counted from the paying up of the debentures.

III. Interest: TJLP + 0.8% per year

IV. Guarantee: None.

V. In the absence of a guarantee, if the credit is secured or subordinate: Secured Credit.

VI. Possible restrictions imposed on the issuer:

- for distribution of dividends: None
- disposal of certain assets: Vale may dispose of any goods, if at its discretion, this act is desirable for the efficient running of its business and does not adversely affect Vale's capacity to honor its obligations in terms of the Deed of Issuance.

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- assumption of new debt: none
- issuing new securities: none.

VII. The fiduciary agent, indicating the key terms of the contract: none.

### **Conditions to alter rights assured by the securities**

Any changes to the terms of this debenture issue will depend on the approval of debenture holders representing at least 50% plus 1 debenture of outstanding debentures. For the purpose of setting up the quorum, debentures possibly belonging to Vale shall be excluded.

### **Other relevant characteristics**

Debentures issued by Vale S.A., privately, which were fully subscribed by BNDES Participações S.A.

Vale undertakes to maintain, for the duration of the Deed, the following indexes compiled annually through the financial statements audited by external auditors registered with the CVM (Securities Commission): a) Ratio of Debt over Adjusted EBITDA less than or equal to 4.5 (four and five tenths); and b) Ratio of Adjusted EBITDA over Interest Expenses greater than or equal to 2.0 (two).

In the event these levels are not complied with, Vale should provide, within 60 (sixty) days counted from the date of such communication, in writing to debenture holders, collateralized guarantees, accepted by the debenture

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holders, at a value corresponding to at least 130% (one hundred and thirty per cent) of the debt balance of debentures, unless within that period the levels above are reestablished.

<b>Security</b>	<b>Debentures Salobo 1</b>
<b>Quantity</b>	5 debentures
<b>Unit Value</b>	R\$ 15,250,399.93
<b>Total Value</b>	R\$ 76.251,999.65
<b>Issuing date</b>	01/06/97
<b>Restriction to outstanding units</b>	No
<b>Convertibility into shares or granting the right to subscribe or acquire issuer shares</b>	The debentures combine 5 subscription premiums (1 for each debenture) giving the holder the right to subscribe to preferred shares of Salobo Metais S.A., in the amount equivalent to 50% of the shares issued existing at the time the subscribed fully paid in capital 2 times the issue value of the debentures.
<b>Possibility of redemption</b>	None
<b>Characteristics of Securities</b>	<p>I. Maturity date: 7 years as of the achievement of accumulated commercial invoicing of 200,000 tons of copper by Salobo Metais S.A. (5 successive annual installments, formed of principal and interest due after the first 2 years after the achievement of accumulated commercial invoicing of 200,000 tons of grade A copper cathode of London Metals Exchange)</p> <p>II. Possibility of early redemption: none</p> <p>III. Interest: IGP-DI + 6.5% per year (capitalized)</p> <p>IV. Guarantee: Vale S.A. guarantee</p> <p>V. In the absence of any guarantee, if the credit is secured or subordinate: the debentures will be subordinate to the other creditors of the issuer</p> <p>VI. Possible restrictions imposed on the issuer, in relation to:</p> <ul style="list-style-type: none"> <li>• distribution of dividends: None</li> </ul>

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- disposal of determined assets: none
- contracting of new debt: none
- issuing new securities: none

VII. The fiduciary agent, indicating the key terms of the contract: none.

**Conditions to alter rights assured by the securities** None

**Other relevant characteristics** Debentures issued by Salobo Metais s.a., privately, which were fully subscribed by the Banco Nacional de Desenvolvimento Econômico e Social (BNDES)

When issuing shares arising from the exercise of the right of subscription, a premium will be paid corresponding to the dividends distributed to shareholders until that date, in the proportion of shares subscribed by BNDES or its assignee.

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<b>Security</b>	<b>Bonds VALE22(13)</b>
<b>Quantity</b>	<i>Bonds</i> are issued at the minimum value of US\$ 2,000, always in multiples of US\$ 1,000
<b>Value</b>	US\$ 1,000,000,000.00 issued on 01/11/2012 and US\$ 1,250,000,000.00 issued by the reopening of existing bond on 04/04/2012, in a total of US\$ 2,250,000,000.00
<b>Issuing date</b>	01/11/2012 and 04/04/2012
<b>Restriction to outstanding units</b>	None
<b>Convertibility into shares or granting the right to subscribe or acquire issuer shares</b>	None
<b>Possibility of redemption</b>	<p>I. Possibilities of redemption</p> <ul style="list-style-type: none"><li>• Redemption by means of payment of premium, at any time, of all notes, or part of the notes, periodically, at Vale Overseas criterion.</li><li>• Redemption due to changes in the tax law: if Vale or Vale Overseas are forced to maintain values greater than 15%, in the event of payment of interest over note, due to changes in the Brazilian or in Cayman tax law, Vale Overseas may redeem the entirety of the notes in advance.</li></ul> <p>II. Formula for calculating value of redemption:</p> <ul style="list-style-type: none"><li>• The redemption value will be 100% of the principal value or the sum of the current value of the interest installments and the remaining principal, whichever is the greatest, deducted at the date of redemption at the rate equivalent to Treasury + 0.40%</li><li>• Redemption due to changes in the tax law: The redemption value will be equal to 100% of the principal value plus the interests accrued up to the date of redemption.</li></ul>
<b>Characteristics of <i>Bonds</i></b>	<p>I. Maturity date: 01/11/2022</p> <p>II. Early maturity: If a default event occurs, which is not corrected or condoned, the trustee, as instructed by at least 25% of the note holders for the value of the principal showing an open debt, must declare the principal value, the interests accrued and any amount unpaid immediately due. The default events are described in the deed of issuance, including, but not limited to:</p>

- failure to pay interests, principal or premium, if any.
  
- in relation to Vale, its relevant subsidiaries (any subsidiary which total assets are greater than 10% of the total consolidated assets of the group at the end of each fiscal year), and in regard to Vale Overseas, the occurrence of any default, in any transaction characterized as debt, that exceeds, in total, US\$ 50 million and this default results in the effective acceleration of the debt.
  
- failure from Vale or Vale Overseas to comply with their covenants in relation to the note and this failure persists 60 days after Vale or Vale Overseas have received communication from the trustee or from at least 25% of the note holders reporting the non-compliance of the obligations. These obligations include, but are not limited to: (i) obligation not to conduct a merger or sale of the entirety of the assets or a significant part of the assets of Vale or Vale Overseas, with some exceptions and (ii) limitations to granting collateral in debt transactions, with some permitted exceptions.
  
- insolvency or bankruptcy.
  
- Vale Overseas notes become illegal, generating the acceleration of over US\$ 50 million total.
  
- the collateral becomes invalid or unenforceable.

III. Interest: 4.375% per year

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(13) Bonds issued by subsidiary Vale Overseas Ltd.



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IV. Guarantee: There is no granting of collateral: Vale guarantees, irrevocably and unconditionally, the full payment of the principal, interests and other amounts owed in relation to this note, in the event Vale Overseas fails to pay.

V. the credit is secured or subordinate: N/A

VI. Possible restrictions imposed on the issuer, in relation to:

- distribution of dividends: There are no restrictions on dividend distribution by Vale. However, Vale Overseas may not declare or pay any dividends, without the trustee's consent, as instructed by at least 25% of the note holders for the value of the principal showing an open debt.
  
- disposal of determined assets: Vale and Vale Overseas may not, without the consent from the majority of the note holders, participate in a merger with another company or transfer all or a significant part of its assets to a third party, except, however that: (i) the company created by this consolidation or a third party that acquired said assets undertakes to make timely payments of the principal and interests and other obligations from Vale and Vale Overseas in the deed of issuance; (ii) no default event occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as applicable, provide their trustee with a certification and a legal opinion attesting that the consolidation or transfer of assets meet the requirements set forth in item (ii).
  
- contracting of new debt: there are no restrictions to contracting new debts by Vale. Vale Overseas may issue debts instruments within the scope of the deed of issuance, but Vale Overseas may not contract any other type of loan or financing.
  
- issuing new securities: Vale Overseas may issue, without the consent from the note holders, new notes according to the terms and conditions applicable to Bond VALE 2022. In addition, Vale Overseas may issue new notes under other terms and conditions. Vale has the right to guarantee, without the consent from the note holders, debts from its subsidiaries and issue its own debt.

VII. The fiduciary agent, indicating the key terms of the contract: The Bank of New York Mellon acts as a trustee of the notes within the scope of the deed of issuance and its main role is to secure investors' rights.

**Conditions to alter rights assured by the securities**

The deed of issuance, allows, to amend the rights and obligations of Vale Overseas and the investors in the notes. Said amendments must be executed upon the consent from 100% or the majority of the note holders for the value of the principal showing an open debt, according to the type of

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amendment. Some non-material clarifications or amendments may be made without the consent from the note holders.

<b>Other relevant characteristics</b>	None
<b>Security</b>	<b>Eurobond VALE23</b>
<b>Quantity</b>	<i>Bonds</i> are issued at the minimum value of EUR 100,000, always in multiples of EUR 1,000, above
<b>Value</b>	EUR 750,000,000
<b>Issuing date</b>	7/10/2012
<b>Restriction to outstanding units</b>	None.
<b>Convertibility into shares or granting the right to subscribe or acquire issuer shares</b>	None.
<b>Possibility of redemption</b>	I. Possibilities of redemption: <ul style="list-style-type: none"><li>• Redemption by means of payment of premium, at any time, of all bonds or part of the bonds periodically, at issuer's criterion.</li><li>• Redemption due to changes in the tax law: if Vale is forced to maintain</li></ul>

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values greater than 15%, in the event of payment of interest over note, due to changes in the Brazilian tax law, Vale may redeem the entirety of the notes in advance.

II. Formula for calculating value of redemption:

- The redemption value will be 100% of the principal value or the sum of the current value of the interest installments and the remaining principal, whichever is the greatest, deducted at the date of redemption at the rate equivalent to Bund Rate (security return German Bund ) + 0.45%
- Redemption due to changes in the tax law: The redemption value will be equal to 100% of the principal value plus the interests accrued up to the date of redemption.

**Characteristics of Bonds**

I. Maturity date: 1/10/2023

II. Early maturity: if a default event occurs, which is not corrected or condoned, the trustee, as instructed by at least 25% of the note holders for the value of the principal showing an open debt, must declare the principal value, the interests accrued and any amount unpaid immediately due. The default events are described in the deed of issuance, including, but not limited to:

- failure to pay interests, principal or premium, if any.
- in relation to Vale, its relevant Subsidiaries (subsidiaries with total assets exceeding 10% of the total consolidated assets of the group at the end of each fiscal year): the occurrence of any default, in any transaction characterized as debt, that exceeds, in total, US\$ 50 million and this default results in the effective acceleration of the debt.
- failure from Vale to comply with their covenants in relation to the note and this failure persists 60 days after Vale or Vale Overseas have received communication from the trustee or from at least 25% of the note holders reporting the non-compliance of the obligations. These obligations include, but are not limited to: (i) obligation not to conduct a merger or sale of the entirety of the assets or a significant part of the assets of Vale or Vale Overseas, with some exceptions and (ii) limitations to granting collateral in debt transactions, with some permitted exceptions.
- insolvency or bankruptcy.

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- notes issued by Vale Overseas Limited become illegal, generating the acceleration of over US\$ 50 million total.

III. Interest: 3.75% per year.

IV. Guarantee: The notes are obligations unsecured by Vale and do not hold privileges over other Vale unsecured debts.

V. If the credit is secured or subordinate: N/A.

VI. Possible restrictions imposed on the issuer, in relation to:

- distribution of dividends: There are no restrictions on dividend distribution by Vale.
- disposal of determined assets: Vale may not, without the consent from the majority of the note holders, participate in a merger with another company or transfer all or a significant part of its assets to a third party, except, however that: (i) the company created by this consolidation or a third party that acquired said assets undertakes to make timely payments of

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the principal and interests and other obligations from Vale in the deed of issuance; (ii) no default event occurs as a result of the transaction; and (iii) Vale, as applicable, provide their trustee with a certification and a legal opinion attesting that the consolidation or transfer of assets meet the requirements set forth in item (ii).

- contracting of new debt: there are no restrictions to contracting new debts by Vale.
  
- issuing new securities: Vale may issue, without the consent from the note holders, new notes according to the terms and conditions applicable to Eurobonds VALE23. In addition, Vale may issue new notes under other terms and conditions. Vale is entitled to collateralize debts by its subsidiaries,, without consent by the holders.

VII. The fiduciary agent (indicate the key terms of the contract): The Bank of New York Mellon acts as a trustee, *registrar*, *paying agent* e *transfer agent* of the notes within the scope of the deed of issuance and its main role is to secure investors' rights. The Bank of New York Mellon Trust (Japan), Ltd. acts as main *paying agent*, and the Bank of New York (Luxemburg) S.A. acts as *registrar* in Luxembourg, *paying agent* and *transfer agent*.

<b>Conditions to alter rights assured by the securities</b>	The deed of issuance, allows, at any time, with some exceptions, to amend the rights and obligations of Vale Overseas and the investors in the notes. Said amendments may only be executed upon consent from the majority of the note holders for the value of the principal showing an open debt.
<b>Other relevant characteristics</b>	Bond issued by Vale S.A.
<b>Security</b>	<b>Bonds VALE39(2)</b>
<b>Quantity</b>	<i>Bonds</i> are issued at the minimum value of US\$ 2,000, always in multiples of US\$ 1,000.
<b>Value</b>	US\$ 1,000,000,000.00
<b>Issuing date</b>	11/10/09
<b>Restriction to outstanding units</b>	None
<b>Convertibility into shares or granting the right to subscribe or acquire issuer shares</b>	None
<b>Possibility of redemption</b>	I. Possibilities of redemption <ul style="list-style-type: none"> <li>• Redemption by means of payment of premium, at any time, of all bonds or part of the notes, periodically, at Vale Overseas criterion.</li> </ul>

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- Redemption due to changes in the tax law: if Vale or Vale Overseas are forced to maintain values greater than 15%, in the event of payment of interest over note, due to changes in the Brazilian or in Cayman tax law, Vale Overseas may redeem the entirety of the notes in advance.

### II. Formula for calculating value of redemption:

- The redemption value will be 100% of the principal value or the sum of the current value of the interest installments and the remaining principal, whichever is the greatest, deducted at the date of redemption at the rate equivalent to Treasury + 0.40%

- Redemption due to changes in the tax law: The redemption value will be equal to 100% of the principal value plus the interests accrued up to the date of redemption.

### Characteristics of *Bonds*

I. Maturity date: 11/10/39

II. Early maturity: if a default event occurs, which is not corrected or condoned, the trustee, as instructed by at least 25% of the note holders for the value of the principal showing an open debt, must declare the principal value, the interests accrued and any amount unpaid immediately due. The default events are described in the deed of issuance, including, but not limited to:

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- failure to pay interests, principal or premium, if any.
  
- in relation to Vale, its relevant subsidiaries (subsidiaries with total assets exceeding 10% of the total consolidated assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any default, in any transaction characterized as debt, that exceeds, in total, US\$ 50 million and this default results in the effective acceleration of the debt.
  
- failure from Vale or Vale Overseas to comply with their covenants in relation to the note and this failure persists 60 days after Vale or Vale Overseas have received communication from the trustee or from at least 25% of the note holders reporting the non-compliance of the obligations. These obligations include, but are not limited to: (i) obligation not to conduct a merger or sale of the entirety of the assets or a significant part of the assets of Vale or Vale Overseas, with some exceptions and (ii) limitations to granting collateral in debt transactions, with some permitted exceptions.
  
- insolvency or bankruptcy.
  
- Vale Overseas notes become illegal, generating the acceleration of over US\$ 50 million total.
  
- the collateral becomes invalid or unenforceable.

III. Interest: 6.875% per year

IV. Guarantee: There is no granting of collateral. Vale guarantees, irrevocably and unconditionally, the full payment of the principal, interests and other amounts owed in relation to this note, in the event Vale Overseas fails to pay.

IV. If the credit is secured or subordinate: N/A

V. Possible restrictions imposed on the issuer, in relation to:

- distribution of dividends: There are no restrictions on dividend distribution by Vale. However, Vale Overseas may not declare or pay any dividends, without the trustee's consent, as instructed by at least 25% of the note holders for the value of the principal showing an open debt.
- disposal of determined assets: Vale and Vale Overseas may not, without the consent from the majority of the note holders, participate in a merger with another company or transfer all or a significant part of its assets to a third party, except, however that: i) the company created by this consolidation or a third party that acquired said assets undertakes to make timely payments of the principal and interests and other obligations from Vale and Vale Overseas in the deed of issuance; ii) no default event occurs as a result of the transaction; and iii) Vale or Vale Overseas, as applicable, provide their trustee with a certification and a legal opinion attesting that the consolidation or transfer of assets meet the requirements set forth in item (ii).
- contracting of new debt: there are no restrictions to contracting new debts by Vale. Vale Overseas may issue debts instruments within the scope of the deed of issuance, but Vale Overseas may not contract any other type of loan or financing.
- issuing new securities: Vale Overseas may issue, without the consent from the note holders, new notes according to the terms and conditions applicable to Bond VALE 2039. In addition, Vale Overseas may issue new notes under other terms and conditions. Vale has the right to guarantee, without the consent from the note holders, debts from its subsidiaries and issue its own debt.

VII. the fiduciary agent, indicating the key terms of the contract: The Bank of New York acts as a trustee of the notes within the scope of the deed of issuance and its main role is to secure investors rights

**Conditions to alter rights**

The deed of issuance, allows to amend the rights and obligations of Vale



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<b>assured by the securities</b>	Overseas and the investors in the notes. Said amendments must be executed upon consent from 100% or the majority of the note holders for the value of the principal showing an open debt, according to the type of amendment. Some non-material clarifications or amendments may be made without the consent from the note holders.
<b>Other relevant characteristics</b>	None
<b>Security</b>	<b>Bonds VALE19(3)</b>
<b>Quantity</b>	Bonds are issued at the minimum value of US\$ 2,000, always in multiples of US\$ 1,000.
<b>Value</b>	US\$ 1,000,000,000.00
<b>Issuing date</b>	9/15/2009
<b>Restriction to outstanding units</b>	None
<b>Convertibility into shares or granting the right to subscribe or acquire issuer shares</b>	None
<b>Possibility of redemption</b>	<p>I. Possibilities of redemption</p> <ul style="list-style-type: none"> <li>• Redemption by means of payment of premium, at any time, of all notes, or part of the notes, periodically, at Vale Overseas criterion.</li> <li>• Redemption due to changes in the tax law: if Vale or Vale Overseas are forced to maintain values greater than 15%, in the event of payment of interest over note, due to changes in the Brazilian or in Cayman tax law, Vale Overseas may redeem the entirety of the notes in advance.</li> </ul> <p>II. Formula for calculating value of redemption:</p> <ul style="list-style-type: none"> <li>• The redemption value will be 100% of the principal value or the sum of the current value of the interest installments and the remaining principal, whichever is the greatest, deducted at the date of redemption at the rate equivalent to Treasury + 0.30%</li> <li>• Redemption due to changes in the tax law: The redemption value will be equal to 100% of the principal value plus the interests accrued up to the date of redemption.</li> </ul>
<b>Characteristics of Bonds</b>	I. Maturity date: 9/15/19

II. Early maturity: if a default event occurs, which is not corrected or condoned, the trustee, as instructed by at least 25% of the note holders for the value of the principal showing an open debt, must declare the principal value, the interests accrued and any amount unpaid immediately due. The default events are described in the deed of issuance, including, but not limited to:

- failure to pay interests, principal or premium, if any.
- in relation to Vale, its subsidiaries (subsidiaries with total assets exceeding 10% of the total consolidated assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any default, in any transaction characterized as debt, that exceeds, in total, US\$ 50 million and this default results in the effective acceleration of the debt.
- failure from Vale or Vale Overseas to comply with their covenants in relation to the note and this failure persists 60 days after Vale or Vale Overseas have received communication from the trustee or from at least 25% of the note holders reporting the non-compliance of the obligations. These obligations include, but are not limited to: (i) obligation not to conduct a merger or sale of the entirety of the assets or a significant part of the assets of Vale or Vale Overseas, with some exceptions and (ii) limitations to granting

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collateral in debt transactions, with some permitted exceptions.

- insolvency or bankruptcy.
- Vale Overseas notes become illegal, generating the acceleration of over US\$ 50 million total.
- the collateral becomes invalid or unenforceable.

III. Interest: 5.625% per year

IV. Guarantees: There is no granting of collateral. Vale guarantees, irrevocably and unconditionally, the full payment of the principal, interests and other amounts owed in relation to this note, in the event Vale Overseas fails to pay.

V. If the credit is secured or subordinate: not applicable

VI. Possible restrictions imposed on the issuer, in relation to:

- distribution of dividends: There are no restrictions on dividend distribution by Vale. However, Vale Overseas may not declare or pay any dividends, without the trustee's consent, as instructed by at least 25% of the note holders for the value of the principal showing an open debt.
- disposal of determined assets: Vale and Vale Overseas may not, without the consent from the majority of the note holders, participate in a merger with another company or transfer all or a significant part of its assets to a third party, except, however that: (i) the company created by this consolidation or a third party that acquired said assets undertakes to make timely payments of the principal and interests and other obligations from Vale and Vale Overseas in the deed of issuance; (ii) no default event occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as applicable, provide their trustee with a certification and a legal opinion attesting that the consolidation or transfer of assets meet the requirements set forth in item (ii).

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- contracting of new debt: there are no restrictions to contracting new debts by Vale. Vale Overseas may issue debts instruments within the scope of the deed of issuance, but Vale Overseas may not contract any other type of loan or financing, without the consent from the trustee, as instructed by at least 25% of the note holders for the value of the principal showing an open debt.

- issuing new securities: Vale Overseas may issue, without the consent from the note holders, new notes according to the terms and conditions applicable to Bond VALE 2019. In addition, Vale Overseas may issue new notes under other terms and conditions. Vale has the right to guarantee, without the consent from the note holders, debts from its subsidiaries and issue its own debt.

VII. The fiduciary agent: The Bank of New York acts as a *trustee* of the notes within the scope of the deed of issuance and its main role is to secure investors' rights.

**Conditions to alter rights assured by the securities**

The deed of issuance, allows to amend the rights and obligations of Vale Overseas and the investors in the notes. Said amendments must be executed upon consent from 100% or the majority of the note holders for the value of the principal showing an open debt, according to the type of amendment. Some non-material clarifications or amendments may be made without the consent from the note holders.

**Other relevant characteristics**

None

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<b>Security</b>	<b>Bonds CVRD36(4)</b>
<b>Quantity</b>	<i>Bonds</i> are issued at the minimum value of US\$ 2,000, always in multiples of US\$ 1,000.
<b>Value</b>	US\$ 2,500,000,000.00
<b>Issuing date</b>	11/21/2006
<b>Restriction to outstanding units</b>	None
<b>Convertibility into shares or granting the right to subscribe or acquire issuer shares</b>	None
<b>Possibility of redemption</b>	<p>I. Possibilities of redemption</p> <ul style="list-style-type: none"> <li>• Redemption by means of payment of premium, at any time, of all bonds or part of the bonds, periodically, at Vale Overseas criterion.</li> <li>• Redemption due to changes in the tax law: if Vale or Vale Overseas are forced to maintain values greater than 15%, in the event of payment of interest over note, due to changes in the Brazilian or in Cayman tax law, Vale Overseas may redeem the entirety of the notes in advance.</li> </ul> <p>II. For calculating value of redemption:</p> <ul style="list-style-type: none"> <li>• The redemption value will be 100% of the principal value or the sum of the current value of the interest installments and the remaining principal, whichever is the greatest, deducted at the date of redemption at the rate equivalent to Treasury + 0.35%</li> <li>• Redemption due to changes in the tax law: The redemption value will be equal to 100% of the principal value plus the interests accrued up to the date of redemption.</li> </ul>
<b>Characteristics of <i>Bonds</i></b>	<p>I. Maturity date: 11/21/36</p> <p>II. Early maturity: if a default event occurs, which is not corrected or condoned, the trustee, as instructed by at least 25% of the note holders for the value of the principal showing an open debt, must declare the principal value, the interests accrued and any amount unpaid immediately due. The default events are described in the deed of issuance, including, but not limited to:</p>

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- failure to pay interests, principal or premium, if any.
- in relation to Vale, its subsidiaries (subsidiaries with total assets exceeding 10% of the total consolidated assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any default, in any transaction characterized as debt, that exceeds, in total, US\$ 50 million and this default results in the effective acceleration of the debt.
- failure from Vale or Vale Overseas to comply with their covenants in relation to the note and this failure persists 60 days after Vale or Vale Overseas have received communication from the trustee or from at least 25% of the note holders reporting the non-compliance of the obligations. These obligations include, but are not limited to: (i) obligation not to conduct a merger or sale of the entirety of the assets or a significant part of the assets of Vale or Vale Overseas, with some exceptions and (ii) limitations to granting collateral in debt transactions, with some permitted exceptions.
- insolvency or bankruptcy.
- Vale Overseas notes become illegal, generating the acceleration of over US\$ 50 million total.
- the collateral becomes invalid or unenforceable.

III. Interest: 6.875% per year

IV. Guarantees: There is no granting of collateral. Vale guarantees, irrevocably and unconditionally, the full payment of the principal, interests and other amounts owed in relation to this note, in the event

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Vale Overseas fails to pay.

V. If the credit is secured or subordinate: N/A

VI. Possible restrictions imposed on the issuer, in relation to:

- distribution of dividends: There are no restrictions on dividend distribution by Vale. However, Vale Overseas may not declare or pay any dividends, without the trustee's consent, as instructed by at least 25% of the note holders for the value of the principal showing an open debt.
  
- disposal of determined assets: Vale and Vale Overseas may not, without the consent from the majority of the note holders, participate in a merger with another company or transfer all or a significant part of its assets to a third party, except, however that: (i) the company created by this consolidation or a third party that acquired said assets undertakes to make timely payments of the principal and interests and other obligations from Vale and Vale Overseas in the deed of issuance; (ii) no default event occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as applicable, provide their trustee with a certification and a legal opinion attesting that the consolidation or transfer of assets meet the requirements set forth in item (ii).
  
- contracting of new debt: there are no restrictions to contracting new debts by Vale. Vale Overseas may issue debts instruments within the scope of the deed of issuance, but Vale Overseas may not contract any other type of loan or financing.
  
- issuing new securities: Vale Overseas may issue, without the consent from the note holders, new notes according to the terms and conditions applicable to Bond VALE 2036. In addition, Vale Overseas may issue new notes under other terms and conditions. Vale has the right to guarantee, without the consent from the note holders, debts from its subsidiaries and issue its own debt.

VII. The fiduciary agent, indicating the key terms of the contract: The Bank of New York acts as a trustee of the notes within the scope of the deed of issuance and its main role is to secure investors rights.

**Conditions to alter rights assured by the securities**

The deed of issuance, allows to amend the rights and obligations of Vale Overseas and the investors in the notes. Said amendments must be executed upon consent from 100% or the majority of the note holders for the value of the principal showing an open debt, according to the type of amendment. Some non-material clarifications or amendments may be made without the consent from the note

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holders.

**Other relevant characteristics**

None

**Security**

***Bonds CVRD34B(5)***

**Quantity**

*Bonds* are issued at the minimum value of US\$ 2,000, always in multiples of US\$ 1,000.

**Value**

US\$ 300,000,000.00

**Issuing date**

11/02/2005

**Restriction to outstanding units**

None

**Convertibility into shares or granting the right to subscribe or acquire issuer shares**

None

**Possibility of redemption**

I. Possibilities of redemption: Redemption due to changes in the tax law: if Vale or Vale Overseas are forced to maintain values greater than 15%, in the event of payment of interest over note, due to changes in the Brazilian or in Cayman tax law, Vale Overseas may redeem the entirety of the notes in advance.

II. For calculating value of redemption: The redemption value will be equal to 100% of the principal value plus the interests accrued up to the date of redemption.



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**Characteristics of Bonds**

I. Maturity date: 01/17/34

II. Early maturity: if a default event occurs, which is not corrected or condoned, the trustee, as instructed by at least 25% of the note holders for the value of the principal showing an open debt, must declare the principal value, the interests accrued and any amount unpaid immediately due. The default events are described in the deed of issuance, including, but not limited to:

- failure to pay interests, principal or premium, if any.
  
- in relation to Vale, its subsidiaries (subsidiaries with total assets exceeding 10% of the total consolidated assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any default, in any transaction characterized as debt, that exceeds, in total, US\$ 50 million and this default results in the effective acceleration of the debt.
  
- failure from Vale or Vale Overseas to comply with their covenants in relation to the note and this failure persists 60 days after Vale or Vale Overseas have received communication from the trustee or from at least 25% of the note holders reporting the non-compliance of the obligations. These obligations include, but are not limited to: (i) obligation not to conduct a merger or sale of the entirety of the assets or a significant part of the assets of Vale or Vale Overseas, with some exceptions and (ii) limitations to granting collateral in debt transactions, with some permitted exceptions.
  
- insolvency or bankruptcy.
  
- If Vale Overseas notes become illegal, the trustee, upon guidance from at least 25% of bond holders in outstanding principal, will also immediately include the amount of principal, interest accrued and any due and unpaid amounts.

III. Interest: 8.25% per year.

IV. Guarantee: There is no granting of collateral. Vale guarantees, irrevocably and unconditionally, the full payment of the principal, interests and other amounts owed in relation to this note, in the event Vale Overseas fails to pay.

V. If the credit is secured or subordinate: N/A

VI. Possible restrictions imposed on the issuer, in relation to:

- distribution of dividends: There are no restrictions on dividend distribution by Vale. However, Vale Overseas may not declare or pay any dividends, without the trustee's consent, as instructed by at least 25% of the note holders for the value of the principal showing an open debt.
  
- disposal of determined assets: Vale and Vale Overseas may not, without the consent from the majority of the note holders, participate in a merger with another company or transfer all or a significant part of its assets to a third party, except, however that: (i) the company created by this consolidation or a third party that acquired said assets undertakes to make timely payments of the principal and interests and other obligations from Vale and Vale Overseas in the deed of issuance; (ii) no default event occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as applicable, provide their trustee with a certification and a legal opinion attesting that the consolidation or transfer of assets meet the requirements set forth in item (ii).
  
- contracting of new debt: there are no restrictions to contracting new debts by Vale. Vale Overseas may issue debts instruments within the scope of the deed of issuance, but Vale Overseas may not contract any other type of loan or financing,
  
- without the consent from the trustee, as instructed by at least 25% of the

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note holders for the value of the principal showing an open debt. Moody's must confirm in advance that the new issuance from Vale Overseas will not result in a lower rating granted for other open notes.

- issuing new securities: Vale Overseas may issue, without the consent from the note holders, new notes according to the terms and conditions applicable to Bond VALE 2034. In addition, Vale Overseas may issue new notes under other terms and conditions. Vale has the right to guarantee, without the consent from the note holders, debts from its subsidiaries and issue its own debt.

VII. The fiduciary agent, indicating the key terms of the contract: The JPMorgan Chase Bank acts as a trustee of the notes within the scope of the deed of issuance and its main role is to secure investors rights

<b>Conditions to alter rights assured by the securities</b>	The deed of issuance, allows to amend the rights and obligations of Vale Overseas and the investors in the notes. Said amendments must be executed upon consent from 100% or the majority of the note holders for the value of the principal showing an open debt, according to the type of amendment. Some non-material clarifications or amendments may be made without the consent from the note holders.
<b>Other relevant characteristics</b>	None
<b>Security</b>	<b>Bonds CVRD17(6)</b>
<b>Quantity</b>	<i>Bonds</i> are issued at the minimum value of US\$ 2,000, always in multiples of US\$ 1,000.
<b>Value</b>	US\$ 1,250,000,000.00
<b>Issuing date</b>	11/21/2006
<b>Restriction to outstanding units</b>	None
<b>Convertibility into shares or granting the right to subscribe or acquire issuer shares</b>	None
<b>Possibility of redemption</b>	<p>I. Possibilities of redemption</p> <ul style="list-style-type: none"> <li>• Redemption by means of payment of premium, at any time, of all bonds or part of the bonds periodically, at Vale Overseas criterion.</li> <li>• Redemption due to changes in the tax law: if Vale or Vale Overseas are forced to maintain values greater than 15%, in the event of payment of interest over note, due to changes in the Brazilian or in Cayman tax law, Vale Overseas may redeem the entirety of the notes in advance.</li> </ul>

II. Formula for calculating value of redemption:

- Redemption by means of payment of premium: The redemption value will be 100% of the principal value or the sum of the current value of the interest installments and the remaining principal, whichever is the greatest, deducted at the date of redemption at the rate equivalent to Treasury + 0.25%.
- Redemption due to changes in the tax law: The redemption value will be equal to 100% of the principal value plus the interests accrued up to the date of redemption.

**Characteristics of Bonds**

I. Maturity date: 01/23/17

II. Early maturity: if a default event occurs, which is not corrected or condoned, the trustee, as instructed by at least 25% of the note holders for the value of the principal showing an open debt, must declare the principal value, the interests accrued and any amount unpaid immediately due. The default events are described in the deed of issuance, including, but not limited to:

- failure to pay interests, principal or premium, if any.
- in relation to Vale, its subsidiaries (subsidiaries with total assets exceeding 10% of the total consolidated assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any

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default, in any transaction characterized as debt, that exceeds, in total, US\$ 50 million and this default results in the effective acceleration of the debt.

- failure from Vale or Vale Overseas to comply with their covenants in relation to the note and this failure persists 60 days after Vale or Vale Overseas have received communication from the trustee or from at least 25% of the note holders reporting the non-compliance of the obligations. These obligations include, but are not limited to: (i) obligation not to conduct a merger or sale of the entirety of the assets or a significant part of the assets of Vale or Vale Overseas, with some exceptions and (ii) limitations to granting collateral in debt transactions, with some permitted exceptions.
  
- insolvency or bankruptcy.
  
- Vale Overseas notes become illegal, generating the acceleration of over US\$ 50 million total.
  
- the collateral becomes invalid or unenforceable.

III. Interest: 6.25% per year.

IV. Guarantee: There is no granting of collateral. Vale guarantees, irrevocably and unconditionally, the full payment of the principal, interests and other amounts owed in relation to this note, in the event Vale Overseas fails to pay.

V. If the credit is secured or subordinate: N/A

VI. Possible restrictions imposed on the issuer, in relation to:

- distribution of dividends: There are no restrictions on dividend distribution by Vale. However, Vale Overseas may not declare or pay any dividends, without the trustee's consent, as instructed by at least 25% of the note holders for the value of the principal showing an open debt.

- disposal of determined assets: Vale and Vale Overseas may not, without the consent from the majority of the note holders, participate in a merger with another company or transfer all or a significant part of its assets to a third party, except, however that: (i) the company created by this consolidation or a third party that acquired said assets undertakes to make timely payments of the principal and interests and other obligations from Vale and Vale Overseas in the deed of issuance; (ii) no default event occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as applicable, provide their trustee with a certification and legal opinion attesting that the consolidation or transfer of assets meet the requirements set forth in item (ii).
- contracting of new debt: there are no restrictions to contracting new debts by Vale. Vale Overseas may issue debts instruments within the scope of the deed of issuance, but Vale Overseas may not contract any other type of loan or financing without the trustee's consent as instructed by at least 25% of the note holders for the value of the principal showing an open debt.
- issuing new securities: Vale Overseas may issue, without the consent from the note holders, new notes according to the terms and conditions applicable to Bond CVRD2017. In addition, Vale Overseas may issue new notes under other terms and conditions. Vale has the right to guarantee, without the consent from the note holders, debts from its subsidiaries and issue its own debt.

VII. The fiduciary agent, indicating the key terms of the contract: The Bank of New York acts as a trustee of the notes within the scope of the deed of issuance and its main role is to secure investors rights.

**Conditions to alter rights assured by the securities**

The deed of issuance, allows to amend the rights and obligations of Vale Overseas and the investors in the notes. Said amendments must

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