Vale S.A.
Form 6-K
May 29, 2013

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 2013

Vale S.A.

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

(Address of principal executive office)

(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 x Form 40-F o

(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 o No x

(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 o No x

(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 o No x

(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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1.1. Stament and Identification of the Responsible Individual

Name of the individual responsible for the content of the Reference Form	**Murilo Pinto Ferreira**
Position of responsible individual	Executive Director
Name of the individual responsible for the content of the Reference Form	**Luciano Siani Pires**
Position of responsible individual	CFO and Director of Investor Relations

The above-mentioned directors stated that:

a. They have reviewed the Reference Form;

b. All the information contained in the Reference Form complies with Instruction CVM No. 480, in particular Articles 14 through 19;

c. All the information contained therein is an accurate, precise and complete representation of the economic and financial situation of the issuer and of the risks inherent to its activities and the securities issued by it.

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2.1/2.2 Identification and remuneration of Auditors:

Does it have auditor?	YES
CVM (Securities Commission) Code	287-9
Type of Auditor	Domestic
Name/Corporate name	PricewaterhouseCoopers Auditores Independentes
CPF/CNPJ	61.562.112/0002-01
Service start date:	07/24/2009
Service end date:	
Description of the service contracted	Provision of professional services for auditing the annual report from Vale 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.
Total amount of the remuneration of independent auditors itemized per service	In the fiscal year ended December 31, 2012, the fees received by company independent auditors for the provision of services to Vale and its affiliates were the following:

	Reais (thousand):	
Financial audit:	17,278	
Sarbanes-Oxley Act Audit:	2,986	
Audit-related services:	1,142	
Total independent audit expenses:	21,406	
Other (**)	516	2% (*)
Total of services	21,922	

(*) Percentage of independent audit service fees
(**) These services are retained for periods shorter than one year

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

Name of the supervisor responsible	**Period of provision of service**	**CPE**	**Address**
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. e-mail: joao.c.lima@br.pwc.com Phone: (21) 3232-6000
Marcos Donizete Panassol	07/24/2009 to 05/31/2012	063.702.238-67	Rua da Candelaria, 65/ 11,14,15 andares, Centro, Rio de Janeiro, RJ, Brasil, CEP 20091-020 Email:

marcos.panassol@br.pwc.com
Telephone: (21) 3232-6112

2.3 Other relevant information

Vale 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 external auditors.

Vale 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 the Supervisory Board, and the independent auditors provide us with an independence letter.

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3.1 Consolidated Financial Information

(Reais/Unit)	Fiscal Year (12/31/2012)	Fiscal Year (12/31/2011)	Fiscal year (12/31/2010)
Shareholders equity	155,633,216,000.00	146,690,367,000.00	116,326,864,000.00
Total Assets	266,921,654,000.00	241,783,112,000.00	214,662,114,000.00
Realized Net Revenue/Temporary Revenue/Insurance Premium	93,511,477,000.00	103,195,407,000.00	83,225,006,000.00
Gross Income	41,514,098,000.00	62,706,537,000.00	49,468,940,000.00
Net Income	9,733,695,883.37	37,813,724,944.02	30,070,050,530.41
Number of Shares, excluding treasury	5,153,374,926	5,097,293,079	5,218,279,135
Asset Value of Share (in R$/unit)	29.57	28.78	22.29
Earnings per Share	1.91	7.21	5.76

3.2 Non-Accounting measurements

a. value of non-accounting measurements

The Company uses EBITDA as a non-accounting measurement. In 2012, the EBITDA of the Company was established in the amount of R$ 27,086,636 thousand, while in 2011 and 2010 these amounts were R$ 58,817,827 thousand and R$ 46,378,648 thousand respectively.

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

In R$ thousands	2012	2011	2010
Operating profit - EBIT	**17,757,589**	**50,416,740**	**40,490,338**
Depreciation / Amortization of goodwill	8,397,427	6,637,733	5,741,372
EBITDA (LAJIDA)	**26,155,016**	**57,054,473**	**46,231,710**
Dividends received	931,620	1,763,354	146,938
EBITDA (LAJIDA) - adjusted	**27,086,636**	**58,817,827**	**46,378,648**
Depreciation / Amortization of goodwill	(8,397,427)	(6,637,733)	(5,741,372)
Dividends received	(931,620)	(1,763,354)	(146,938)
Reduction in recoverable value of intangible assets	(4,001,986)		
Corporate results	1,240,589	1,857,458	(48,081)
Operations			(221,708)
Net financial income	(8,405,110)	(6,352,526)	(2,763,398)
Income and social contribution	2,641,850	(8,513,816)	(7,035,459)
Minority interests			
Net income	**9,232,932**	**37,407,856**	**30,421,692**
Loss (profit) to non-controlling shareholders	**(500,764)**	**(405,868)**	**351,641**
Profit to non-controlling shareholders	**9,733,696**	**37,813,724**	**30,070,051**

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 EBIDTA according to the terms set forth in CMV Instruction no. 527, from October 4, 2012, as follows: the term 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

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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 (earnings before financial results, income from corporate interests, income tax and social contributions, depreciation, depletion and amortization, and plus dividends received) is not a BR GAAP/IFRS measurement 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 as a source of liquidity. The EBITDA definition used by Vale may not be comparable with EBITDA, by definition, for other companies.

3.3 Events subsequent to the latest financial statements

Vale 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 financial statements for the year ended December 31, 2012 were issued and filed with the CVM on February 27, 2013. Below is a description of subsequent events, which were included in the financial statements in compliance with the rules in IAS 24, approved by CVMº 593/09:

Sales of Gold by-products

On February 5, 2013, Vale signed a contract with Silver Wheaton Corp. (SLW) to sell 25% of payable gold flow produced at the Salobo copper mine over its lifetime, and 70% of payable gold flow produced at the Sudbury nickel mines Sudbury Coleman, Copper Cliff, Creighton, Garson, Stobie, Totten and Victor 20 years.

Vale will receive an initial payment in the amount of US$ 1.9 billion (approximately R$ 3.8 billion), plus another ten million from SLW warrants with a unit price in the amount of US$ 65 for ten years. The amount of US$ 1.33 billion (approximately R$ 2.64 billion) will be paid with 25% of the payable gold produced at Salobo, while US$ 570 million (approximately R$ 1,133 million) plus the ten million in SLW warrants that will be receive in exchange for the 70% of payable gold produced at the Sudbury mines.

Additionally, in the future, Vale will receive payments in cash for each ounce (oz) of gold delivered to SLW as per the terms of the agreements. The payments are equal to the lowest value obtained between US$ 400.00 ounces (plus an annual inflation adjustment of 1% starting in 2016 in the case of Salobo) and the market price. Also, depending on its decision to expand the capacity of Salobo s copper ore processing to more than 28 Mtpa before 2031, Vale may receive an additional amount that will be set within a range of US$ 67.00 (approximately R$ 133.00) to US$ 400.00 (approximately R$ 795.00), depending on the time and extent of the expansion.

Vale is not fully committed to the amount of gold to be delivered SLW is entitled to a percentage of the gold produced at Salobo and Sudbury, and not to specific volumes. Vale will be subject to the risk of gold price fluctuations in the SLW deliveries only when the price drops below US$ 400/oz.

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3.4 Policy for allocation of results

<table>
<tr><th></th><th colspan="3">Fiscal Year Ended December 31</th></tr>
<tr><th></th><th>2012</th><th>2011</th><th>2010</th></tr>
<tr><td>a. Rules on retention of profits</td><td colspan="3">Statutory Rule: 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.</td></tr>
<tr><td></td><td>Practice adopted by the Company: Of the total of R$ 9,733,695,883.37 were deducted (i) a legal reserve in the amount of R$ 486,684,794.17, and (ii) the amount of R$ 599,031,296.74 (6.2%) which was allotted for the Tax Incentives Reserve.</td><td>Practice adopted by the Company: Of the total R$ 37,813,724,944.02, after the legal reserve deduction in the amount of R$ 1,890,686,247.20 the amount of R$ 25,864,330,899.53 (68.4%) was allotted for expansion / investments and R$ 995,844,040.58 (2.6%) for the Tax Incentive Reserve. Of the total for the Reserve expansion / investment, 50% was sent based on statutory authorization, and 18.4% was destined for the reserve based on the capital budget approved by the AGM.</td><td>Practice adopted by the Company: Of the total of R$ 36,073,218,330.41 after the deduction for the legal reserve in the amount of R$ 1,803,660,916.52, the amount of R$ 23,468,768,238.73 (65.1%), which was allotted for the expansion / investment Reserve and R$ 1,022,135,742.36 (2.8%) for Tax Incentives. Of the total for the Reserve expansion / investment, 50% was based on statutory authorization and 15.1% was destined for the reserve based on the capital budget approved by the AGM.</td></tr>
<tr><td>b. Arrangements for distribution of dividends</td><td colspan="3">Statutory Rule: 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.

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.</td></tr>
</table>

	Practice adopted by the Company: the amount of 100% corresponding to the annual adjusted net income (not taking into consideration the expansion and investments reserve, in the amount of R$ 740,519,589.90) was allocated to the payment of dividends.	**Practice adopted by the Company:** 25% of the adjusted annual net income was allocated to the payment of dividends.	**Practice adopted by the Company:** 27% of the adjusted annual net income was allocated to the payment of dividends.
c. Frequency of dividend distribution	In accordance with the Dividend Policy adopted by Vale, payments are made semiannually in the months of April and October.		
d. Restrictions to dividend distribution	n/a	n/a	n/a

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3.5 Distributions of dividends and retention of net income.

(Reais)		Fiscal Year Ended December 31, 2012		Fiscal Year Ended December 31, 2011		Fiscal Year Ended December 31, 2010
Adjusted net income for dividend payments		8,647,979,792.46		34,927,194,656.24		33,247,421,671.53
Percentage of dividend over the adjusted net profit		100.000000		26.000000		29.000000
Rate of return in relation to equity		6.000000		26.000000		31.000000
Dividend distributed		8,647,979,792.46		9,062,863,757.00		9,778,653,433.00
Net income retained	R$	599,031,296.74	R$	26,860,174,940.11	R$	24,490,903,981.09
Date of approval of the retention		04/17/2013		04/18/2012		04/19/2011

01/01/2012 to 10/31/2012

Share Type	Share Class	Distributed Dividend	Amount (Unit)	Dividend Payment
Common		Interest on Capital	2,035,913,849.00	04/30/2012
Preferred	Preferred Class A	Interest on Capital	1,237,985,533.00	04/30/2012
Common		Interest on Capital	1,675,236,084.00	10/31/2012
Preferred	Preferred Class A	Interest on Capital	1,034,763,916.00	10/31/2012
Common		Mandatory Dividend	1,646,850,049.47	10/31/2012
Preferred	Preferred Class A	Mandatory Dividend	1,017,230,360.99	10/31/2012

01/01/2011 to 10/31/2011

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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01/01/2010 to 10/31/2010

Share Type	Share Class	Distributed Dividend	Amount (Unit)	Dividend Payment
Common		Interest on Capital	1,029,923,339.00	10/30/2010
Preferred	Preferred Class A	Interest on Capital	644,693,233.00	10/30/2010
Common		Interest on Capital	1,952,075,334.00	04/29/2011
Common		Interest on Capital	2,004,928,273.00	10/31/2011
Common		Interest on Capital	1,027,145,878.00	01/31/2011
Preferred	Preferred Class A	Interest on Capital	1,221,924,666.00	04/29/2011
Preferred	Preferred Class A	Interest on Capital	1,255,008,588.00	10/31/2011
Preferred	Preferred Class A	Interest on Capital	642,954,122.00	01/312011

3.6 Statement of Dividends on account of retained earnings or reserves

Dividends distributed to (in R$ thousands):	Fiscal Year Ended December 31 2012	2011	2010
Retained Earnings			
Constituted Reserves	740,520		513,050

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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
12/31/2012	111,290,000,000.00	Debt ratio	0.715000	
12/31/2012	0.00	Other indexes	1.700000	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. The 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). The debt ratio Gross Debt / Adjusted EBITDA shows the approximate time necessary for a company to pay all its debt with its cash flow. Vale 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 Vale.
12/31/2012	0.00	Other indices	14.500000	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

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(a). Interest expenses include the sum of all appropriated or adjusted interests, paid or not, at certain times, that result from benefits debt.

The interest coverage index (Adjusted EBITDA / Interest Expenses) is used to determine a company s cash flow capacity to comply with its debt payments

Vale 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 financial status.

3.8 Obligations according to the nature and maturity date:

Fiscal year (12/31/2012)

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$)
Collateral	119,247,082	588,386,582	588,386,582	1,666,221,335	2,962,241,581
Floating Guarantee	0	0	0	0	0
Unsecured obligations	25,551,752,918	4,673,025,879	7,957,150,696	70,145,828,927	108,327,758,420
Total	25,671,000,000	5,261,412,460	8,545,537,278	71,812,050,262	111,290,000,000

Note: The value shown at 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 read assets. The remaining debt does not have any collateral. Debts that lack collaterals 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

Vale 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-default and/or 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 cyclicality 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 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 of existing projects and deployment of greenfield projects in time to take advantage of the increased 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 unrelated 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 need of intensive 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 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 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 .

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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 economical 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.

- 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.

- 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 failures may lead to the suspension or reduction of the Company s operations, causing an overall decrease of productivity. An inefficient project management can mean that the Company is not able to continuously develop its activities. Operational incidents may result in important failures in plant and machinery.

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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 adjustment.

- There may be accidents or incidents during the business operations, involving its mines, plants, railways, ports and vessels.

- There may be 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.

- 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 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.

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

The Company has operations involving the use, handling, 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, 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. Vale has rules on environment, health and safety, and management systems in place to minimize the risk of such incidents or accidents. Despite its rules, policies and controls, its operations remain subject to incidents or accidents that may adversely affect its 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, 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 by such disasters which include, among other factors, which may lead to impacts on the power supply and destruction of industrial and 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 determined that force majeure events have happened due to severe climate changes.

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 mineral 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 a more appropriate 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 ore 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.

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 speculative in nature, involves several risks and is frequently non-productive. Its exploration programs, which involve significant capital expenditures, may fail to result in the expansion or replenishment of reserves depleted by current

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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 drilling and production risks may adversely affect the mining process.

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 create the infrastructure required for the development of new projects (greenfield); and
- Obtain the ore 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 damages and be compelled to make reductions. 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 over time as mineral reserves deplete.

Mineral reserves are gradually depleted 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 needs to increase the cost of extraction related to each mine. 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.

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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 that are subject to periodic negotiation.

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, work stoppages involving unrelated parties that provide goods or services to the Company may adversely affect.

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 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 12.1% of the total cost of goods sold in 2012. To meet its energy demand, the Company depends on the following resources: Oil byproducts which accounted for 48% of all energy needs in 2012, electricity (21%), coal (9%), natural gas (15%) and other sources of energy (7%), using amounts converted to tons of oil equivalent (TOE).

Expenses with fuel accounted for 8.5% of its cost with goods sold in 2012. 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 3.6% of its total cost of goods sold in 2012. 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 or adverse weather conditions such as floods or droughts.

Electricity shortages have already occurred worldwide, 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.

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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) gains or losses regarding its net debt expressed in U.S. dollars and its accounts receivable and (ii) gains or losses in market value regarding its currency derivatives used to stabilize its cash flow in U.S. dollars. In 2011 and 2012, the Company had monetary losses in the amount of US$ 1, 915 million and US$ 1,382 million, respectively; in 2010, Vale had monetary gains of US$ 102 million. Moreover, the exchange rate volatility of the Brazilian real, Canadian dollar 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, expenses, and investments is expressed primarily in real (57% in 2012) and Canadian dollars (14% in 2012). 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.

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

The Company may not 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. Besides, if the focus on this integration process, following acquisitions, impacts the performance of its existing business, the company s results and operations may be adversely affected. 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, 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.

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. Although the Company is vigorously contesting these lawsuits, 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. Moreover, under Brazilian law, a taxpayer who wishes to make a claim against a specific tax in court should normally offer collaterals to the court, in the corresponding amount in order to suspend collection. In some claims where the Company questions application and/or payment of specific taxes, the Company may be required to provide collateral or some form of security to the court and, depending on the nature, value and scope of such collateral or security, this can cause a significant impact on its business. For more information, see item 4.3 of this Reference Form.

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

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avoid future violations of the law and accounting and governance standards. The Company may be subject to violations of its Code of Ethical 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 managers resident outside their jurisdictions. Additionally, foreign judicial orders are enforceable in Brazilian courts, without reconsidering the merits provided that they are 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.

Rules on sea transportation of iron ore fines may affect the Company s operations.

A portion of the Company production takes place in the form of iron ore that is not concentrated. This type of ore is sometimes compared to fines, which are small ore particles. Studies have analyzed whether these ores could begin to behave like a fluid when transported under high moisture conditions, although the Company has not had a record of any similar event for over 50 years, which is evidence of the Company s safe transportation of said products. This can cause the load to be less stable, presenting potential risks to navigation. Operational risks depend on many factors including the characteristics of the fines, the circumstances in which they are stored, loaded, and transported and the type of vessel. To manage these risks, the sea transportation industry and insurers generally follow the rules adopted by the International Maritime Solid Bulk Cargoes Code (IMSBC), but these rules do not currently address the transport of non-concentrated iron ore fines that the Company produces in its mines in province of Carajás, in its North System. Potential changes to the rules in effect are currently being assessed by the International Maritime Organization (IMO). The Company believes that the safety of the its navigation practices is evidenced by its long history of safe operations, but changes to these rules could require the Company to adjust its practices as far as the handling or transportation of the Carajás production is concerned, and these measures could increase costs, require new investments and even limit the volume of exports of those products.

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, 2012, Valepar S.A. (Valepar) held 52.7% of the outstanding common shares and 32.4% of the Company s total outstanding capital. As a result of its stock ownership, Valepar elects 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.

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.

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Risks relating to Company suppliers

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 iron ore pellets, which together accounted for 68.2% of Company operating revenues in 2012, are used in the production of carbon steel. Nickel, which accounted for 8.5% of Company operating revenues in 2012, is mainly used in the production of 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 steel industry as a whole are highly cyclical and volatile and these business cycles in this sector affect the demand for and the prices of its products. Besides, the vertical integration of the steel industry and the use of scrap could reduce the global transoceanic trade of iron ore and primary nickel. The demand for fertilizer is affected by agricultural commodities global prices. 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.

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 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, investments from commodities funds, and actions of participants in commodities markets.

The nickel market is going through strong supply growth in the past few years, which has been pushing prices in 2012. Nickel refining in China, in particular that of imported nickel, has had an estimated growth of 390,000 metric tons from 2006 to 2012. In 2012, the estimated production of pig iron nickel and iron nickel in China has increased by 23%, representing 20% of the world s nickel output. Other long term nickel production outside China have also been ramped up production sin 2012, and the increase in nickel supply may continue to grow in the next few year due to ramping up in new nickel projects.

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 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

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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.

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 periodically appear. Although the Company contributes to local communities through taxes, employment and business opportunities and social programs, community expectations are complex and involve multiple stakeholders with different interests. Some of the operations and mineral reserves are located on lands or near lands owned or used by indigenous or aboriginal tribes, or other groups. This indigenous population may have rights to review or participate in the management of natural resources, and the Company negotiates with them in order to minimize the impacts of operations or to have access to their lands.

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 the Company defends itself 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, including the imposition of new taxes or royalties on mining activities.

Mining is subject to government regulations in the form of specific taxes and royalties, which can have a significant impact on Company operations. In the countries where the Company operates, governments may impose or change existing taxes or royalties, or modify the basis on which they are calculated, in a manner unfavorable to the 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 or increases in non-processed ore import taxes. Such requirements may significantly increase the risk profile and operational cost in these locations. The Company and the mining industry are subject to increased nationalization related to mineral resources in certain countries where it operates, which may affect operations, result in 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 legal exposure 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 the appropriate licenses for deployment. 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 and, in some cases, force the Company to postpone or even abandon a project. 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,

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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.

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 mining activities or to take on additional costs to conserver 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 2012, Chinese demand represented 66% of global transoceanic demand for iron ore, 48% of global demand for nickel, and 41% of the global demand for copper. The percentage of the Company s operating revenues attributable to sales to consumers in China was 36.2% in 2012. A contraction in China s economic growth may result in lower demand for Company products, leading to lower revenues, cash flow and profitability. Poor performance of the Chinese real estate sector and higher consumption of carbon steel in China may also cause a negative impact on the Company s results.

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

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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.

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. If the Company does not provide the depositary with voting materials in a timely manner, or if the custodian does not provide enough time for holders of ADRs or HDR to submit their voting instructions, HDR and ADR holders shall not be able to exercise their voting rights. 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.

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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:

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

Vale 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.

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.

Vale 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

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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.

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.

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.

Vale believes that staff is one of its competitive advantages, and seeks to treat all employees in the fairest possible way. Vale 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.

Vale 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 has developed its power generation assets based on current and projected energy needs of its mining operations in order to reduce their energy costs and minimize the risk of energy supply problems.

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.

Vale 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 Vale 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.

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.

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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 Vale 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.

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

Fine iron ore sea transportation rules may affect the Company s operations.

Vale is conducting a research program to further assess the phenomenon of liquefaction and studies to ensure the stability of ships in various situations.

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, Vale 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.

Vale 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, Vale 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

(I) Labor

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$ 689,775.59 thousand
Main facts	The Public Prosecutor for Labor matters of Minas Gerais filed, on 11/27/06, 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 08/20/09, 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 10/15/2009, Vale filed an appeal against this decision. On 02/22/10, the Superior Regional Labor Court rejected Vale s appeal and partially accepted the appeal filed by the public prosecution office, granting the legal protection sought. On 05/18/10, Vale filed another appeal to the Supreme Labor Court, claiming the violation of article 129, III, of the Federal Constitution, 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 results in the lack of competence of such office and on the lack of right to file such a claim because of the absence of one of its requirements, as provided for in 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, 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; besides, activities performed by service providers are specialized and can be legitimately agreed. On 05/21/10, the Supreme Labor Court granted Vale s injunction request to suspend the summary judgment that ordered the detonation to be handled by its own staff. On 07/09/10, Vale s appeal was dismissed 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 07/19/10, which seeks the assessment of the mentioned above appeal and that is still pending judgment.
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$ 190.7 thousand. The provisioned value was changes relative to December 31, 2011 due to a monetary update.

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Notes	There is only one labor claim (file no. 21022011054), filed at the Labor Court of Congonhas 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 (still in the discovery phase).

2) Claim no. 00685-45.2008.5.08.0114

Court	1st Federal Court of Parauapebas Pará
Instance	1st Instance (settlement during 1st instance)
Date of filing	3/7/2008
Parties in the suit	Public Prosecutor for Labor matters (plaintiff), Vale and the following companies (defendants): Accentum Manutenção e Serviços Ltda., ALTM S.A Tecnologia e Serviços de Manutenção, Atlântica Serviços Gerais Ltda., BMT- Engenharia Ltda., BRITAP - Britagem Azevedo Ltda., Comau do Brasil Industria e Comercio Ltda., Consorcio Canaã, Consorcio Sossego, Consorcio VFC, Construtora Brasil Novo Ltda., Construtora Camilo e Empreendimentos Ltda., Construtora Mineira de Engenharia Ltda., Construtora Norberto Odebrecht S A, Construtora Queiroz Galvão S/A, CRM Construtora Ltda., D Service Ltda., Dan Hebert S/A, Dinex Engenharia Mineral Ltda., E. S. Neres Transportes ME, 20. EME Serviços Gerais Ltda., Engepar Engenharia Ltda., Flapa Mineração e Incorporação Ltda., Geocret Engenharia e Tecnologia Ltda., Gesman Ltda., Integral Construções e Comercio Ltda., Intertek do Brasil Inspeções Ltda., Julio Simões Transportes e Serviços Ltda., Kaserge Serviços Gerais Ltda., Lubrin Lubrificacao Industrial Ltda., Metso Brasil Industria E Comercio Ltda., MIP Engenharia S/A, MSE-Servicos de Operação, Manutenção e Montagem Ltda., Progeo - Engenharia Ltda., Rio Maguari Serviços e Transportes Rodoviario Ltda., Rip Serviços Industriais S/A, Salosergel Vigilância Ltda., Sital - Sociedade Itacolomi de Engenharia Ltda., Sodexho do Brasil Comercial Ltda., T Q M Service Ltda., U & M Mineração e Construção S/A, and Vessoni Transportes Ltda.
Amounts, goods or rights involved	R$ 108.6 million
Main facts	Vale provides free transportation to employees who live in Paruapebas and in the residential center of Carajás to the mines of Carajás and Sossego. For that reason, the Public Prosecution Office of Pará filed a Public Civil Action against Vale and 42 other service providers, claiming that workplaces are difficult to access and not served by regular public transportation, so Vale and the other companies should be ordered to pay, as overtime, the time spent to go back and forward between Parauapebas and the mines of Carajás and Sossego. On 3/12/10, the first instance decision was published condemning Vale to pay indemnity for damages to the amount of R$ 100 million and for practicing social dumping (R$ 200 million). Temporary relief was granted so that Vale could determine, immediately, how many hours travelling each of its employees used, with a penalty of a daily fine of R$ 100 thousand if not done, as well as refrain contractors from including on their cost worksheet expenses with hours paid travelling and allied costs. As a result of a request for decisions by Odebrecht, (one of the 42 defendants in this lawsuit), in the Request for Corrective Judgment filed by Vale as a response, the Inspector General of the Supreme Labor Tribunal in Brasilia, on 03/19/10 recognized the allegations and reversed the temporary relief order granted by the local judge, so that Vale and the other companies may appeal without having to comply immediately with the sentence passed. VALE, the Public Labor Prosecution Office and Workers Union executed an agreement to settle the claim, which was approved by

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	the Court on 07/20/10. The settlement does not include any of the convictions stated in the Court s decision, namely, the compensation for alleged collective pain and suffering and social dumping. Vale agreed to pay, as working hours, part of the time spent commuting back and forward to work (already implemented). Besides, Vale has already paid the amounts corresponding to the retroactive period defined in the settlement (42 months). In order to fully complying with the settlement, Vale shall engage in two social works: a cultural center and a federal technical school in Parauapebas/PA. The implementation of this part of the settlement is still in progress, and the lawsuit is still active.
Chances of loss	The previous prognosis was of possible loss, considering that the most relevant requests had little chance of being granted by the Court. We reviewed the amounts and we changed the prognosis to probable loss in view of the settlement.
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	In the event of acceptance of all the claims submitted, Vale would be compelled to pay: (i) *in itinere* hours for all the employees working at Carajás, Azul and Sossego mines, (ii) *in itinere* hours retroactively to March 2003 and (iii) group moral damages in an amount of R$ 100,000,000.00.
Amount provisioned (if any)	The amount originally allocated to the claim was of R$ 79.5 million. This figure was revised and updated in March 2012 to R$ 47.6 million, considering the effects of the executed settlement. On December 31, 2012 the provisioned amount was R$ 50.0 million due to monetary update. As far as the payment of salaries is concerned, Vale has already fulfilled the obligations defined in the settlement approved by the Court with the payment of the retroactive commuting hours. In addition, Vale has been monthly paying its employees the minutes set out in the settlement.

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3) Claim n. 3197.2001.002.17.00-8

Jurisdiction	2nd Labor Court of Vitória - Espírito Santo
Instance	1st Instance
Date of filing	09/19/2001
Parties in the suit	Vale S.A. (defendant) and SINDFER Railroad union of ES and MG (plaintiff)
Amounts, goods or rights involved	Guarantee of the operational activities at the Tubarão Complex.
Main facts	On 09/19/01, the SINDFER union filed a public civil action, whose object was the compliance of areas of the Tubarão Complex with the dictates of NR-10 (safety of premises and services in electricity). After production of expert evidence, Vale was ordered on 03/19/09 to implement in their operational facilities, located in the State of Espírito Santo, all technical measures for the protection of work against risks by electricity provided for in the NR. The judge granted Vale temporary relief, with a period of six months for compliance, ending 11/19/09, with payment of a daily fine of R$ 100,000.00 for non-compliance. After rounds of negotiation, and several inspections of areas of the Complex, a legal agreement was signed on 12/17/09 between the parties, establishing a timeline for implementation of technical measures, with a deadline of 12/31/11, which was duly approved by the court on 03/11/10, suspending the suit. On 01/24/11, SINDFER took part in a meeting with Vale Representatives where the substitution certificate of the previously filed revitalization schedules was signed accepting the new schedules submitted by the Company where the term for revitalization of the Complex was extended until 03/31/12. In March, the parties agreed to extend the period of adjustment of the Complex to 04/15/2012, and the final inspection was scheduled for 05/07/2012. On 05/07/2012, the parties toured the Complex of Tubarão, and SINDFER acknowledged the fulfillment of the settlement and made a commitment to submit a report. On 06/22/2012 the parties filed a joint petition declaring a settlement had been reached and requesting the lawsuit s dismissal, according to the terms of article no. 269, item III, of the Code of Civil Procedures. On 08/02/2012, the Judged ordered the dismissal of the lawsuit as a result of the settlement. On 08/30/2012 the lawsuit was dismissed.
Chances of loss	N/A claim was archived
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	Any financial impacts have been removed with the execution of a settlement between the parties in 2009, which was considered complied with by the parties.
Amount provisioned (if any)	No amount has been allocated since the claim does not include any request for Vale to pay any amounts to the Union, employees or third parties. The claim refers to investments in the Company s electrical system, in other words, in its own industrial park. So there is no amount to be allocated in case of loss. Besides, the claim was settled on 8/30/2012.

4) Claim n. 00329.2006.92020003

Jurisdiction	Labor Court of Maruim Sergipe
Instance	3rd Instance (Supreme Labor Court)
Date of filing	08/18/2006
Parties in the suit	Vale S.A. (defendant) and Union for workers extracting iron, basic and precious metals-Sindimina (plaintiff)
Amounts, goods or rights	Guarantee of the operational activities at the potassium chlorate mine

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involved	in Sergipe.
Main facts	Lawsuit brought by SINDIMINA union in the State of Sergipe on 01/23/11, 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. On 02/20/06, 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. A motion for clarification was filed and it was clarified that the 30 day-period should be counted as of the final judgment (res judicata). On 09/25/06, Vale filed an appeal, which was partially granted, on 08/07/07, to exclude the interruption of mine activities and the payment of a daily fine of R$ 100 thousand from the conviction. On 11/29/07, Vale filed an Appeal before the Supreme Labor Court (TST) to demonstrate compliance with the legal standards applicable to the activity, which was received on 03/04/08. On 12/19/12, the mentioned above appeal was judged unfavorably to Vale. On 02/06/12, a motion for clarification was filed by Vale. On March 2012, the motion was dismissed and the Motion SDI-1 (TST) and the Extraordinary Appeal (STF) were filed and are still pending. Vale has been making efforts to reach a settlement with the union.
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. According to the latest RAL (for its acronym in Portuguese for Mining Annual Report), Vale s net income in 2010 resulting from the exploration of the potassium chloride mine exploration was of R$ 465.9 million, thus, such is the maximum annual impact if the mine is to be closed. 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.

With regard to the processes listed below which challenge the taxation of profits from its affiliates abroad, it is important to notice that tax authorities may issue new tax assessments to ensure the right to collect amounts relative to 2009 and thereafter Additionally, Vale may be compelled to provide guarantees of the amounts involved to be able to discuss the payment of

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taxes in Court. However, since the decision issued was favorable to Vale, in May 2012, attributing suspensive effects to the extraordinary appeal and, consequently dismissing the applicability of amounts being questioned, , there is no need to post any bond while such favorable decision is still in force and any new assessment notices shall be issued but no payment shall be required.

Due to taxation exposures involving some companies from the Vale Group, the Company had provisions totaling R$ 2,039 million, from which (i) R$ 539 million were linked to subsidiary companies abroad, (ii) R$ 287 million were relative to Brazilian subsidiaries, (ii) R$ 1,060 million were relative to provisions related to CFEM proceedings (described in item 4.6 ii of this Reference Form), and (iv) R$ 153 million relative to the Company s other tax proceedings.

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) and Federal Tax Authority (Defendant)
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, in the event of taxation prior to 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 However, in August 2005, a ruling was issued denying the request made in the writ of mandamus as the Court did not accept Vale s arguments After the dismissal of the motion for clarification filed by Vale, the company filed an appeal which was received on September 29, 2005 and the collection of the tax credit was suspended. On March 29, 2011, the 3rd Specialized Panel of 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 June 3, 2011, a motion for

clarification was filed, pointing out omissions regarding Vale s arguments on 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 Article 7 of the treaties against double taxation prohibits Brazil from taxing profits of affiliates and subsidiaries abroad, that treaties prevail against internal laws and 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 partially in favor of Vale was published and the exchange rate variation on the amount of foreign investment was excluded, but the other requests were rejected and the suspension of the tax credit collection was cancelled

On December 13, 2011, Vale filed a Special Appeal at the Superior

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	Court of Justice (STJ) and an Extraordinary Appeal at the Supreme Court of Justice (STF). The Special and Extraordinary Appeals are admitted on May 7, 2012, the same day that Vale filed for a Preliminary Order before the Federal Supreme Court requesting attribution of suspensive effects to the Extraordinary Appeal aiming to suspend the application of amounts related to IRPJ and CSLL being discussed. This request was granted preliminarily on May 9, 2012 and confirmed by the STF plenary on April 10, 2013, reason why collections related to profits of affiliates abroad are suspended.
Chances of loss	Possible
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.
Amount provisioned (if any)	Not applicable
Notes	The judgment of the unconstitutionality claim (ADI, for its acronym in Portuguese) filed by the Confederação Nacional da Indústria (CNI) challenging the constitutionality of Article 74 of Provisional Executive Order was resumed on April 3, 2013. On April 10, 2013 the decision of said ADI was rendered, determining that article 74 is not applicable to associate companies located in countries without favoring taxation (non tax havens), but applicable to associate companies located in countries with favoring taxation (tax havens). There was also a decision on the non-retroactive nature of the sole paragraph of article 74 in the MP. On the same date the Extraordinary Appeals of *Cooperativa Agropecuária Mourãoense* COAMO and Embraco were judged. Vale s Preliminary Order was confirmed unanimously, as described in item 1.4. The result of these judgments will have an impact on outcome of Vale s final discussion.

1.2) Injunction Request no. 2011.02.01.017919-1 related to the Writ of Mandamus 2003.51.01.002937-0

Court	Federal Regional Court of the 2nd Region
Instance	2nd Instance
Date of filing	12/26/2011
Parties to the claim	Vale (plaintiff) and Federal Government (defendant
Values, assets or rights involved	Not applicable
Main factors	On December 26, 2011, an injunction was filed by Vale to suspend, until the judgment of the Special and Extraordinary Appeals filed by the Company in the Writ of Mandamus (item 1), the collection of amounts regarding income taxes and social contributions being discussed. The injunction request was denied and Vale filed an interlocutory appeal, which was dismissed during a trial held on February 16, 2012. The lawsuit was dismissed on June 27, 2012 after the above-mentioned unfavorable final decision was rendered. Considering the final archival of the process, this item will be removed from future Company reports.
Probability of loss	Lost.
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	Not applicable. Considering the granting of the injunction related to item 1.4, this discussion is prejudiced as the object no longer applies.
Allocated amount (if any)	None

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1.3) Injunction Request no. 18.919 related to the Writ of Mandamus 2003.51.01.002937-0

Court	Superior Court of Justice
Instance	3rd Instance
Date of filing	02/01/2012
Parties to the claim	Vale (plaintiff) and Federal Government (defendant)
Values, assets or rights involved	Not applicable
Main factors	On February 1, 2012, an injunction was filed by Vale to suspend, until the judgment of the special appeal filed in the writ of mandamus (item 1), the collection of amounts regarding income taxes and social contributions being discussed. On February 3, 2012, the injunction request was denied. Vale filed an appeal and February 16, 2012, the Minister Rapporteur caused the decision to be ineffective upon recognizing his impartiality for personal reasons. The case was submitted to the Minister Teori Albino Zavascki and on March 14, 2012, the injunction request was granted suspending applicability of amounts being discussed. On March 28, 2012, the National Tax Authority filed an interlocutory appeal, for purposes of reverting the preliminary order favorable to Vale on May 3, 2012, , by majority vote, thus rejecting the previously rendered monocratic decision. On June 19, 2012, Vale filed a Motion for Clarification against this decision, which was unanimously denied on February 19, 2013. The process was archived on April 9, 2013, when the unfavorable decision turned into res judicata. Considering the final argument, this item will removed from future Company forms.
Probability of loss	Possible
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	In the event of any unfavorable outcome, tax credits will not be enforceable immediately as their effectiveness is subject to the final decision to the Injunction filed before the Federal Supreme Court object of item 1.4 below, which decision currently in effect suspends the applicability of amounts for IRPJ and CSLL being discussed.
Allocated amount (if any)	None

1.4) 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
Parties to the claim	Vale (plaintiff) and Federal Government (defendant)
Values, assets or rights involved	Not applicable
Main factors	On May 7, 2012, Vale filed for an Injunction to attribute suspensive effects to the Extraordinary Appeal filed in the Writ of Mandamus (item 1) determining suspension of the applicability of amounts for IRPJ and CSLL being discussed. On May 9, 2012, Justice Marco Aurélio Mello , from the Federal Supreme Court granted the injunction attributing the suspensive effect to the Extraordinary Appeal, thus suspending the applicability of amounts under discussion. The decision to grant the provisional remedy is subject to approval by the Court s other Justices. On May 25, 2012, the Union filed an appeal. On May 28, 2012, the Union filed an Interlocutory Appeal that was then granted. On June 8, 2012, Vale filed Objection to the Appeal filed by the Treasury. On April 10, 2013, there was a decision rejecting, unanimously,

the Appeal and maintaining the injunction favorable to Vale. This decision is yet to be published.

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Probability of loss	Possible
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.
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
Parties to the claim	Federal Tax Authority (plaintiff) and Vale (defendant)
Values, assets or rights involved	R$ 460 million, plus penalties and interests amounting to R$ 1,003 million (December 2012)
Main factors	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. On December 10, 2007, Vale filed an 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 was still in force (item 1). The Internal Revenue Trial Service (DRJ, for its acronym in Portuguese) judged the impugnation partially against the company. On August 18, 2008, a Voluntary Appeal was filed by Vale. The Federal Tax Authority also filed an Appeal regarding the partial reduction of the social contribution collection. At the judgment of these appeals, held on May 19, 2010, some of Vale s arguments were not assessed by CARF, as it was deemed that they should be assessed by a Judge. Additionally, the preliminary argument regarding the running of the statute of limitations as far the collections referring to years 1996 and 1997 presented by Vale were concerned was rejected, the application of a fine against Vale was canceled, and the Appeal from the National Tax Authority was dismissed. On September 26, 2011, Vale filed a Motion for Clarification stating the existence of omissions in the second instance administrative decision. Such motion is still pending judgment. On March 10, 2011, a Special Appeal was presented by the National Tax Authority against the cancelling of the penalty. Later on, Vale submitted its counterarguments together with a Special Appeal regarding the decision that rejected its preliminary argument on the running of the statute of limitation. On January 24, 2012, the Special Major Taxpayer 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 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, said appeals have not even reached the special instance level.

Vale filed a Writ of Mandamus to reverse the order of DEMAC and ensure the regular development of the administrative process, as well as to request reconsideration at the administrative level.

On September 20, 2012, Vale received a notice from the Brazilian IRS acknowledging that the dismissal of amounts relative to changes in

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	currency exchange, that amounted to R$ 1.6 billion. This dismissal resulted from a partially favorable decision made on the Motions for Clarification filed by the Company in the Writ of Mandamus no. 2003.51.01.002937-0 (item 1 above).
	Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. For this reason, the applicability of such amounts is suspended.
Probability of loss	Possible
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 regular development of the administrative proceeding no. 18471.001243/2007-69. The injunction request was denied, reason why Vale filed a request for reconsideration, which was denied, and a Request for Amendment of Judgment, which is pending judgment. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1.4), 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. For this reason, the applicability of such amounts is suspended.
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

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Parties to the claim	Federal Taxpayer Authority (plaintiff) and Vale (defendant)
Values, assets or rights involved	R$ 1,757 million in December 2012 (value already included in the amount of the main administrative process described in item 2 above, added with legal fees)
Main factors	On March 12, 2012, the Federal Tax Authority filed a claim to collect income taxes and social contributions presumably due, in view of the order from DEMAC mentioned in item 2 above. On April 25, 2012, the Federal Tax Authority filed a petition requesting seizure of dividends to be distributed by Vale on April 30, 2012. On April 26, 2012, Vale filed a petition challenging the request from the Federal 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. On May 8, 2012, the Federal Tax Authority presented a request to block monies through the BACENJUD system that, upon objection by Vale, was rejected due to the result of the injunction object of item 1.4. Vale requested dismissal of the bail previously offered as guarantee of execution, 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 1.4, the lawsuit has been stayed.
Probability of loss	Possible
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 1.4, Vale may have to present a new guarantee to suspend the applicability of the amounts in question.
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	R$ 4,076 million, plus penalties and interests amounting to R$ 7,274 million (December 2012)
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 an 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 was still in force (item 1). The Internal Revenue Trial Service (DRJ, for its acronym in Portuguese) judged the impugnation against the company. On August 18, 2008, Vale filed a voluntary appeal, reinforcing the arguments included in its impugnation. At the trial, in May 19, 2010, the Tax Appeals Administrative Council (CARF, for its acronym in Portuguese) annulled the first instance decision so that a new administrative 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.

In light of this decision, in September 26, 2011, a motion for clarification was filed by the Federal Tax Authority. At the trial on October 3, 2011, CARF partially accepted the motion for clarification only to clarify the omission as to the declaration of nullity of the first instance decision and to ratify the judgment previously delivered.

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	On December 6, 2011, the Federal Tax Authority filed a petition alleging that, in view of a supposed acknowledgment that two claims, one at the administrative level and another in Court, were active at the same time, which took place during the judgment of the motion to clarify filed in the writ of mandamus no 2003.51.01.002937-0 (item 1), the decision which annulled the first instance decision would be null and, therefore, the process should be directed to the collection sector of the Federal Tax Authority. On December 22, 2011, Vale filed a petition alleging that there was no recognition of claim concurrency. Nonetheless, on January 18, 2012, the President of the 2nd Chamber of CARF issued a monocratic decision, taking for granted the arguments of the Federal Tax Authority to cancel the judgment which annulled the first instance decision. On January 25, 2012, Vale filed a writ of mandamus (item 1.3) alleging the illegality of the above mentioned monocratic decision, and an injunction order was issued to suspend the effects of such decision and determine the regular processing of the administrative claim. In addition, Vale filed an administrative appeal. The Federal 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. Vale filed an interlocutory appeal in order to reverse such decision, which was denied. On May 8, 2012, although the decision granting the injunction related to item 1.3 and, thus, has yet to be published and despite of the effective suspensive effect of the preliminary order granted by the STJ, the Federal Tax Authority distributed the Tax Assessment to collect amounts under discussion (item 3.2). Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. For this reason, the applicability of such amounts is suspended.
Chances of loss	Possible
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	In the event of a final unfavorable decision, 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.
Amount provisioned (if any)	None

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	On January 25, 2012, Vale filed a writ of mandamus, and on 01/27/12, an injunction order was issued to suspend the effects of

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	the administrative monocratic decision mentioned above and to determine the regular processing of administrative claims no. 18471.000141/2008-15 and 12897.00868/2009-98. The Federal 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. Vale filed an interlocutory appeal in order to reverse the decision, which was denied. Judgment on the lawsuit s merit is still pending. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. For this reason, the applicability of such amounts is suspended.
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

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	Federal Tax Authority (Plaintiff) and Vale (Defendant)
Values, assets or rights involved	R$ 13,620 in December 2012 (2012 (amount included in the main administrative procedure described in item 3 above))
Main factors	On May 8, 2012, although the decision granting the injunction related to item 1.3 has yet to be published and despite of the effective suspensive effect of the preliminary order granted by the STJ, the Federal Tax Authority filed a tax assessment notice to collect the amounts of IRPJ and CSLL supposedly due, considering the administrative decision mentioned in item 3 above. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. For that reason, the applicability of such amounts is suspended. Based on the injunction dated May 9, 2012, on May 11, 2012, Vale filed a petition informing the injunction and, on the same date, a decision was pronounced suspending the Execution.
Probability of loss	Possible
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 1.4, Vale may have to present a new guarantee to suspend the applicability of the tax credits in question.
Allocated amount (if any)	None

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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	R$ 5,742 million, plus penalties and interest amounting to R$ 8,272 million (December 2011)
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 an 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 was still in force (item 1). The Internal Revenue Trial Service (DRJ, for its acronym in Portuguese) judged the impugnation against the company. On July 8, 2010, Vale filed a voluntary appeal, reinforcing the arguments included in its impugnation. On November 23, 2011, CARF decided to send the files back to the first instance so that a new decision would be issued to supplement the previous one, and that the applicability of the Convention to avoid double taxation could be assessed. On December 6, 2011, the Federal Tax Authority filed a petition in this administrative proceeding alleging breach of a court decision in view of a supposed recognition of claim concomitance in the injunction described in item 1 above, and requiring the claim to be directed to the Tax Authority collection sector. On December 22, 2011, Vale filed a petition alleging that there was no recognition of claim concurrency. The President of the 2nd Chamber of CARF issued a monocratic decision, taking for granted the arguments of the Federal Tax Authority so as to cancel the judgment that annulled the decision on the Voluntary Appeal which ordered the files to be sent to the first instance. On January 25, 2012, Vale filed a writ of mandamus (described in item 3.1) alleging the illegality of the monocratic decision, and an injunction order was issued to suspend the effects of such decision and determine the regular processing of the administrative claims. In addition, Vale filed an administrative appeal. The Federal 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. Vale filed an interlocutory appeal in order to reverse the decision, which was denied. On May 8, 2012, although the decision granting the injunction related to item 1.3 has yet to be published and despite of the effective suspensive effect of the preliminary order granted by the STJ, the Federal Tax Authority distributed the Tax Assessment to collect amounts under discussion (item 4.4)

	Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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 Supreme Court, granted the injunction, confirmed by unanimity of votes on April 10, 2013. For this reason, the applicability of such amounts is suspended.
Chances of loss	Possible
Analysis of impact in the case	In the event of a final unfavorable decision, the taxes on the

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of losing the suit/ Reasons for importance for the Company	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.
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 Federal 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 Federal Tax Authority, would not be the object of the Voluntary Appeal previously filed by the Company in the administrative procedure. On March 23, 2011, Vale filed a petition requesting the cancellation of the collection on the grounds that the claimed values were covered by the Voluntary Appeal previously filed by the Company. On April 15, 2011, Vale received a notice from the Federal Tax Authority announcing the maintenance of the collection. On April 29, 2011, Vale filed a writ of mandamus combined with an injunction request to suspend the collection, which was rejected. On May 25, 2011, an interlocutory appeal was filed against the decision that rejected the request for injunction to suspend the collection. On July 15, 2011, the request to suspend the effects of the previous decision was rejected on the grounds that the requirements for that were not fulfilled. On January 15, 2013, the ruling denying the writ of mandamus claimed by the Company was issued. In view of that, on January 30, 2013, an appeal against the decision was filed, and judgment is pending. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), with consequent suspension of applicability of amounts related to IRPJ and CSLL being discussed, and on May 9, 2012, Justice Marco Aurelio Mello, of the Federal Supreme Court granted the injunction, confirmed by unanimity of votes on April 10, 2013. For this reason, the applicability of such amounts is suspended.
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

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	R$ 32,258,589.89 in December 2012 (value already included in the

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involved	amount of the main administrative process described in item 4 above, added with legal fees)
Main factors	On July 8, 2011, the Federal 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. On August 29, 2011, Vale submitted a guarantee regarding the tax collection, which was subsequently and expressly approved by the Federal Tax Authority. On September 28, 2011, Vale filed a motion to stay the collection, under No. 2011.51.01.509917-5, requiring the suspension of the collection until the final judgment of the main writ of mandamus filed in 2003 and the cancellation of the Company s Debt Certificate due to a material error, in view of an inconsistency of the amounts indicated therein. On September 13, 2012, the Federal Tax Authority presented its response to the Motion for Injunction. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. For this reason, the applicability of such amounts is suspended.
Probability of loss	Possible
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 guarantee of this execution may be enforced.
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	Federal Tax Authority (Defendant) and Vale (Plaintiff)
Values, assets or rights involved	Value already mentioned in item 4.2 above.
Main factors	On September 28, 2011, Vale filed a motion to stay the collection, requiring the suspension of the collection until the final judgment of the main writ of mandamus (item 1) filed in 2003 and the cancellation of the Company s Debt Certificate due to a material error, in view of an inconsistency of the amounts indicated therein. On September 13, 2012, the Federal Tax Authority filed objection to the Motion for Collection. Conclusion is pending on the delivery of the court records. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. For this reason, the applicability of such amounts is suspended.
Probability of loss	Possible
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 guarantee may be enforced.

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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	Federal Tax Authority (Plaintiff) and Vale (Defendant)
Values, assets or rights involved	R$16,817 million in December 2012 (amount included in the main administrative procedure described in item 4 above, added with legal fees)
Main factors	On May 8, 2012, although the decision granting the injunction related to item 1.3 has yet to be published and despite of the effective suspensive effect of the preliminary order granted by the STJ, the Federal Tax Authority filed a tax assessment notice to collect the amounts of IRPJ and CSLL supposedly due, considering the administrative decision mentioned in item 4 above. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. For that reason, applicability of such amounts is suspended. As a result of the injunction dated May 9, 2012, on May 11, /2012, a decision was rendered ordering the stay of the lawsuit.
Probability of loss	Possible
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 1.4, Vale may have to present a guarantee to suspend the applicability of such amounts.
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	R$ 1,604 million, plus penalties and interests amounting to R$ 2,109 million (December 2012)
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 an 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 was still in force (item 1). The Internal Revenue Trial Service (DRJ, for its acronym in Portuguese) judged the impugnation against the company. On July 8, 2010, Vale filed a Voluntary Appeal against the decision which dismissed such impugnation, reinforcing the previously submitted arguments. Such appeal is still pending judgment.

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	On December 6, 2011, the Federal Tax Authority filed a petition in this administrative proceeding alleging breach of a court decision in view of a supposed acknowledgment of claim concomitance by the Judiciary and requiring the claim to be directed to the Tax Authority collection sector. On January 17, 2012, Vale filed a petition alleging that there was no recognition of claim concurrency by the Judiciary. The President of the 3rd Chamber of CARF issued an order determining that the claim be directed to the Federal Tax Authority Office of origin. On 03/16/12, Vale received a letter requiring the payments of the amounts *sub judice*. On May 8, 2012, although the decision granting the injunction related to item 1.3 has yet to be published and despite of the effective suspensive effect of the preliminary order granted by the STJ, the Federal Tax Authority distributed the Tax Assessment to collect amounts under discussion (item 5.6) Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. For this reason, the applicability of such amounts is suspended.
Chances of loss	Possible
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	In the event of a final unfavorable decision, 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.
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 Federal 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	On August 19, 2010, Vale received a letter requesting the payment of income taxes and social contributions which, according to the Federal Tax Authority, would not be the object of the Voluntary Appeal previously filed by the Company in the administrative procedure. On August 23, 2010, Vale filed a petition requesting the cancellation of the collection on the grounds that the claimed values were covered by the Voluntary Appeal previously filed by the Company. Given the acceptance of the arguments submitted by Vale, in the sense that there would be calculation errors, the Federal Tax Authority reduced the amount charged and issued a new collection letter, which was received by Vale on September 6, 2010. Due to the partial maintenance of the collection, on September 28, 2010, Vale filed a writ of mandamus on the grounds that such amounts would still be under discussion at the administrative level. The injunction request was granted to suspend the collection of debts required by the Federal Tax Authority.

In view of this decision, the Federal Tax Authority filed an interlocutory appeal in order to reverse the decision regarding the suspension of the collection, which was denied.

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	However, on December 16, 2011, an unfavorable judgment was rendered, as the Court deemed that such values would not be the object of the voluntary appeal previously filed by the Company. In view thereof, on January 9, 2012, Vale filed an appeal, requiring the reversion of the decision. That appeal is pending judgment by the Federal Regional Court of the 2nd Region. On January 26, 2012, two tax collection claims were filed to recover the income tax and social contribution amounts under discussion. Vale had to post a bond to secure the alleged debts and the motions to stay such collection claims (items 5.2 to 5.5 below). Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. For this reason, the applicability of such amounts is suspended.
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

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$ 20,587,405.60 in December 2012 (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 Federal Tax Authority filed a claim to collect income taxes and social 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 02/6/12, the Court accepted such bond. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. For this reason, the applicability of such amounts is suspended, and on May 7, 2013, an order was published determining dismissal of the Collateral Letter by Vale.
Probability of loss	Possible
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 guarantee of this execution may be enforced.
Allocated amount (if any)	None

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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	Federal 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 motion to stay the collection claim. We are waiting for the Federal Tax Authority s objection to Vale s motion. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), with consequent suspension of applicability of amounts related to IRPJ and CSLL being discussed. On May 9, 2012, Justice Marco Aurélio Mello, from Federal Supreme Court granted the injunction, confirmed by unanimity of votes on April 10, 2013. For this reason, the applicability of such amounts is suspended. On May 7, 2013, there was a decision ending the action with no merit resolution, considering suspension of enforcement due to decisions issued in the Preliminary Measures issued by the STJ (1.3) and STF (1.4).
Probability of loss	Possible
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 guarantee of this execution may be enforced.
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$ 57,380,983.21 in December 2012 (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 Federal Tax Authority filed a claim to collect income tax presumably due, in view of the collection letter mentioned in item 5.1. On February 2, 2012, Vale posted a bond to secure the entire debt. On May 8, 2012, although the decision granting the injunction related to item 1.3 has yet to be published and despite of the effective suspensive effect of the preliminary order granted by the STJ, the Federal Tax Authority requested the seizure of R$ 55,654,046.21 through the BACENJUD system filed a petition requesting to block monies to guarantee the execution through the Bacenjud system, granted by the Court. Vale filed a request for amendment of judgment against this decision. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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. As a result of the

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	injunction dated May 9, 2012, on 05/14/12, a court order suspended the lawsuit. Vale requested the release of the values under discussion, as authorized by the Court and, since it was denied, it filed an interlocutory appeal. On June 8, 2012, a court order was issued upholding the decision. Considering the decision favorable to Vale was maintained by the STF, mentioned in item 1.4, on May 15, 2013, the Collateral Letter previously granted was retrieved.
Probability of loss	Possible
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 deposit that guarantees this execution may be converted into revenue to the Union.
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	Federal Tax Authority (Defendant) and Vale (Plaintiff)
Values, assets or rights involved	Value already mentioned in item 5.4 above.
Main factors	On March 8, 2012, Vale filed a motion to stay the collection claim. Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), with consequent suspension of applicability of amounts related to IRPJ and CSLL being discussed, and 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. For this reason, the applicability of such amounts is suspended. As a result of the injunction dated 5May 9, 2012, on May 10, 2012 a decision suspended the suit.
Probability of loss	Possible
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 deposit that guarantees this execution may be converted into revenue to the Union.
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	Federal Tax Authority (Plaintiff) and Vale (Defendant)
Values, assets or rights involved	R$ 4,457 in December 2012 (amount included in the main administrative procedure described in item 5 above, added with legal fees)
Main factors	On May 8, 2012, although the decision granting the injunction related to item 1.3 has yet to be published and despite of the effective suspensive effect of the preliminary order granted by the STJ, the Federal 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.

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	Vale filed for injunction to attribute a suspensive effect to the extraordinary appeal filed in the writ of mandamus (item 1), 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 The Tax Authority filed a request to block and seize monies through the BACENJUD system, which was denied. In view of the decision by the Federal Supreme Court presented in the records by Vale, the Court suspended this assessment and issued an order for summoning.
Probability of loss	Possible
Analysis of impact in case of loss/Reasons for the importance of the claim to the Company	In the event of an unfavorable outcome related to the Injunction object of item 1.4, Vale may have to guarantee to suspend the applicability of the amounts in question.
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 Federal 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. Considering that a request for injunction had not been made, Vale filed a petition for reconsideration, which was denied. Faced with this decision, on August 22, 2012, Vale filed the interlocutory appeal held on the record, which is still pending.
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

(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

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Main facts	Vale filed a common 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. Relief was granted, as soon as the case was judged in the year 2008, establishing that the MST must refrain from such acts. The MST failed to comply with the granted court injunction, reason why Vale requested an increase in the established fine in the event of noncompliance, which was granted by the court.
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$ 3,461,310,446.26 (three billion, four hundred sixty one million, three hundred ten thousand, four hundred forty six reais and twenty six cents).
Main facts	The plaintiff filed a claim for reparation from the Company to receive contractual amounts, damages, lost profits, among other amounts, for alleged breach of contractual obligations 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 partial 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 still 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.
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

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	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, Vale obtains a favorable decision judging the requests to be without foundation and recognizing the validity of contracts of accession that allow exploitation of port terminals located in Praia Mole. On 07/03/2012, the 1st instance court decision was upheld by the Federal Circuit Court of Appeals of the 2nd Region when the appeal filed by the Prosecutor s office was heard. Face with this decision, the Prosecutor s Office filed, on 10/23/2012, special and extraordinary appeals, which, after Vales presented its objection, is waiting examination of admissibility before the Court s Vice-Presidency.
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

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, Adelzuith 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	This is a Public Civil Action filed by the State s Prosecutor against Vale and other 10 defendants, in which the Prosecutor claimed that an organized group of people acted with the intention of illegally taking ownership of lands belonging to the State of Minas Gerais . The prosecutor requested an injunction of the defendants assets, with the exception of Vale s, 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 in first instances and upheld by Minas Gerais Court of Justice when the defendants filed appeals. At the end, the Prosecutor petitioned the 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 ; that the ITER was convicted 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 . Vale filed objection on March 15, 2012 and the lawsuit is still in the discovery phase.
Chances of loss	Possible
Analysis of impact in the case of losing the suit/ Reasons why it is relevant to the Company	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 by Vale (approximately R$ 35 million)
Amount provisioned (if any)	None

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(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$ 3,483 billion
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. On January 2012, the writ was judged against Vale. However, the 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.
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 financial losses for the Company.
Amount provisioned (if any)	None.

2) Claim no. 0317.02.007032-0

Jurisdiction	1st Civil Court of Itabira - Minas Gerais
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$ 3.007 billion
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

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	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.
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 financial losses for the Company.
Amount provisioned (if any)	None.

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

1) Claim no. 12707 (PAS CVM 14/2005)

Jurisdiction	Appeals Council of the National Financial System CRSFN
Instance	2nd Instance
Date of filing	08/23/2005
Parties in the suit	This suit was initiated by CVM, as a result of a complaint from the investment club of SUDFER Railway Workers, minority shareholder of MRS Logística S.A. (MRS), against: Vale (successor of Ferteco Mineração S.A.); Companhia Siderúrgica Nacional - CSN; Minerações Brasileiras Reunidas S/A - MBR; and the directors of MRS who were involved from 1998 to 2002, namely: Alberto Régis Távora, Andreas Walter Brehm, Chequer Hanna Bou-Habib, Delson de Miranda Tolentino, Estela Maria Praça de Almeida, Henrique Ache Pillar, Hugo Serrado Stoffel, Georg Josef Schmid, Godofredo Mendes Vianna. Guilherme F. Escalhão, Inácio Clemente da Silva, João Paulo do Amaral Braga, Joaquim de Souza Gomes, José Paulo de Oliveira Alves, Julio César Pinto, Julio Fontana Neto, Klaus Helmut Schweizer, Lauro H. Campos Rezende, Luiz Antonio Bonagura, Marcus Jurandir de A. Tabasco, Marianne Von Lachmann, Mauro Rolf Fernandes Knudsen, Oscar Augusto de Camargo Filho, Otávio de Garcia Lazcano, Pablo Javier Q. Bruggemann, Rinaldo Campos Soares, Roberto Gottschalk, Valter Luis de Sousa and Wanderlei Viçoso Fagundes.
Amounts, goods or rights involved	Assessment of possible irregularities related to tariff model of MRS between 1998 and 2002.
Main facts	The lawsuit was initiated by CVM to verify (i) the conduct of MRS directors for alleged tariff mismanagement, characterized by undervalued tariffs for the benefit of captive customers or owners; and (ii) the conduct of the MRS shareholders for contracts signed directly with MRS on allegedly non-equitable terms. The suit was judged by the CVM on 05/05/2009, which acquitted all those involved. At the end of 2009, CVM filed an appeal (No. 12707) at CRFSN, which was received on 11/04/2009. That appeal is still pending judgment, having been directed, on 11/09/2009, to PGFN/CAF, for the issuance of an opinion. On 10/29/2012, the appeals rapporteur was chosen.
Chances of loss	Remote.
Analysis of impact in the case of losing the suit/ Reasons for importance for the Company	The eventual reversal of the decision at the first instance can result in the application of a warning or fine for the company.

Amount provisioned (if any)	None.

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2) 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 03/08/2010 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 08/23/2011, 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 claims 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. Contracts under discussion in this brief 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 implementation stage, but the decision is not yet firm. Vale has a Special Recourse filed with STJ, which was unanimously rejected by the Panel. Faced with this decision, Vale filed a Motion for Clarification and, later a divergence appeal, both of which were denied by the Reporter. In order to have the divergence appeal accepted, Vale filed an Interlocutory Appeal that is still pending judgment in the Special Court. Even if this decision can still be reversed, Vale was determined to pay R$ 346,773,910.20 claimed by PETROS in the lawsuit. To increase the amount deposited in escrow, Petros presented a bank surety bond in the amount of R$ 497.0 million. If there are changes in the merit of the case, Vale shall be entitled to recover that amount by enforcing the bank guarantee provided by Petros. There also is an Extraordinary Appeal to be processed and judged by the Supreme Court. There is also a Special Recourse to be dealt with and decided by STF.
Chances of loss	Probable
Analysis of impact in the case of losing the suit	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. 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).
Amount provisioned (if any)	No amount has been allocated given the escrow deposit made by Vale, which was withdrawn by Petros, upon the presentation of bank guarantee.

3) 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	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)

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Amounts, goods or rights involved	Incalculable Request for annulment of the General Meeting.
Main facts	The plaintiff brought a lawsuit requesting compensation and annulment of the General Meeting authorizing the capital increase of Ferrovia Centro-Atlântica S.A. (FCA) in early 2003 on the grounds of alleged practice of abusive acts by FCA s controlling group. The request was initially judged well founded, but the judgment was reversed by the Court of Justice of Minas Gerais, which annulled all the judicial proceedings instituted up to then and therefore 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 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 was allowed to intervene as an assistant. In view thereof, ANTT requested to examine the files for 15 days and CSN filed an interlocutory appeal, which was rejected by the Court of the 1st Region based on the illegitimacy of such party. The Judge of the 18th Federal Court of Belo Horizonte received FCA s motion not to accept the expert Nelson Ferreira Santos based on his possible impartiality and ordered his summoning to comment on the content of the allegations. The expert required to examine the files to learn about the facts, but did not provide any clarification. Afterwards, ANTT was allowed to examine the records, ratifying the validity of the Act authorizing increase of FCA s capital stock. After this manifestation by the ANTT, the parties were summoned to present final arguments, an ordered appealed against by Mineração Tacumã Ltda., in a specific petition and appeal, altering the Court that the records were not ready for a decision on merits due to several issues for which analysis and discussion were pending. There is no manifestation by the Court on this matter.
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

4. Procedure No. 0529364272010.8.13.0145

Jurisdiction	7th Civil Court of Juiz de Fora/Minas Gerais
Instance	1st Instance
Date of filing	August 2010
Parties in the suit	SUDFER (plaintiff), and MRS Logística S.A., Companhia Siderúrgica Nacional S.A., Minerações Brasileiras Reunidas S.A., Usiminas Usinas Siderúrgicas de Minas Gerais, Gerdau S.A. and Vale S.A. (defendants)
Amounts, goods or rights involved	Incalculable
Main facts	Plaintiff asserts 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. Plaintiff requested: 1) Temporary relief determining that the Defendants hire with a subsidiary on equal terms, taking into consideration the maximum

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	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 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 judgment of dismissal for lack of jurisdiction also filed by the defendants is passed, thus, aiming at determining in the mining trial, 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

5) Procedure No. 0497166342010.8.13.0145

Jurisdiction	8th Civil Court of Juiz de Fora Minas Gerais
Instance	1st Instance
Date of filing	August 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
Main facts	The Plaintiff requires payment for moral damages based on the fact 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 03/15/2012, Vale, MBR and the managers (Chequer Hanna Bou-Habib, Guilherme Frederico Escalhão, Hugo Serrado Stoffel and Roberto Gottschalk) spontaneously submitted their arguments, as agreed by the defendants. We also present a lack of competence exception, aiming to have the claim remitted to Rio de Janeiro, which was accepted. The decision is waiting to become res judicata. In the meantime, 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

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6) 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 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., 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 Escalhao, 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	SUDFER is seeking an injunction to suspend sanctioning administrative case no. 14/05 so that, before the case s merit is judged, it can keep the National Finance System s Appeals Council from examining the mandatory review filed by the CVM, under penalty of receiving a fine established by the Judge in the event of noncompliance with the court order and, if necessary, to order imprisonment for failing to comply with the court order. In the merit, it is requested that the full writ of mandamus is granted based on the cited irregularities, rejecting the decision that denied the administrative petition for the annulment of the judgment pronounced by the sanctioning administrative case no. 14/05, thus determining that the records are sent back to the CVM for a new trial, which shall be presided by a new panel, and judging all of the barred and /or suspicious directors who participated in the 1st trial, for they rendered their vote in a clearly fraudulent lawsuit, which 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. 6.4040/76. The injunction was granted by the first instance court after the CMV s President presented his defense. The sanctioning administrative proceeding no. 14/2005 was suspended so as to prevent the examination of the mandatory review by the National Financial System s Appeals Council until the merit of the writ of mandamus is examined. However, CVM has filed an interlocutory appeal to revoke the injunction, which was granted, and is now ineffective/ therefore, the MPF expressed an opinion that all defendants should be cited in the administrative proceedings in question, since the writ of mandamus decision will directly affect them, not to mention that it will secure the right to a full defense and of adversarial proceedings, given their interest in the case. Grounded in this, the judge ordered the regularization of the defendants and consequently, the citation of the companies shareholders and managers. On 6/8/2011 the defense of 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 - were presented. Currently, we are still waiting for all defendants to be cited.
Chances of loss	Remote

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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

4.5 Relevant confidential claims

Not applicable. Vale is 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 includes 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, 2012, were taken into account, namely: joint liability (13%), overtime (10%), additional payment due to unhealthy or risky work environments (7%), fines (7%) and commuting hours (6%). In addition to the procedures outlined in items above, the group s controlling company is also involved in some claims regarding labor issues, which amount to R$ 692.5 million that are allocated.

Fact and/or legal cause	The more recurring objects are subsidiary/joint liability, overtime, additional payment for hazardous/unhealthy conditions, hours *in itinere* and fines.
Amounts involved	R$ 2.9 billion
Amount provisioned (if any)	R$ 752.2 million
Company practice or that of subsidiary which caused the contingency	Difference of interpretation given by the company, employees and unions to various facts, legal and regulatory instruments concerning the issues above.

(ii) Tax

Fact and/or legal cause	Discussion about the taxable base for the calculation of the Financial Compensation for Exploring Mineral Resources CFEM (for its acronym in Portuguese)
Amounts involved	R$ 5,756 billion (in December 2012) for various collections of CFEM.
Amount provisioned (if any)	Approximately R$ 1,060 million (in December 2012)
Company practice or that of subsidiary which caused the contingency	Vale is involved in many administrative and legal proceedings concerning the collection of CFEM. 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 client s sales invoicing

abroad.

In order to revise the CFEM taxable base amounts, the Federal

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	Government created, in 2011, a working group with representatives from Vale and DNPM. In December 2012, this group determined it was necessary to reduce the amount charged by R$ 846 million. In 2012, Vale changed the discussion s loss prognosis regarding the deduction of expenses with transportation from possible to probable. In 12/31/2012, the CFEM provision was of approximately R$ 1,060 million. In that same year, Vale finished paying the amount relative to that term that had not been fined by the DNPM, an amount of approximately R$ 301 million. In 2013, Vale settled the amounts assessed relative to the deduction of transportation expenses, an amount of approximately R$ 444 million.
Fact and/or legal cause	Collection of State VAT (ICMS) on interstate transfer of ore.
Amounts involved	In Minas Gerais: Original total amount: R$ 2.1 billion Residual amount paid by Vale to settle the lawsuits: R$ 168 million. In Pará: Original total amount: R$ 544 million (12/31/2012)
Amount provisioned (if any)	None
Company practice or that of subsidiary which caused the contingency	Vale contested the ICMS (value-added tax) allegedly due to the State of Minas Gerais because there were disagreements in the calculation basis of the taxes due in the interstate transfer of iron through 18 administrative proceedings, 12 of which were originally notices of infraction issued in 2012. Due to changes in the legislation which considerably reduced the fines imposed, Vale decided to pay off the amounts charged by the State of Minas Gerais and quit the administrative discussions that were then ongoing. The total amount paid in 2012 to settle the proceedings correspond to R$ 168 million. In 2012, the State of Pará issued three notices of infraction that were similar to those filed by the State of Minas Gerais. The defenses that were presented are pending decision.

(iii) Civil

Fact and/or legal cause	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, Vale was determined to pay the R$ 346,773,910.20 requested and withdrawn by PETROS, upon the posting of a bond.
Amounts involved	R$ 157,162,876.82 (one hundred fifty seven million, one hundred sixty two thousand, eight hundred seventy six reais and eighty two cents) total value from the other 11 remaining cases, excluding the Petros case.
Amount provisioned (if any)	R$ 4,113,360.41 (four million, one hundred and thirteen thousand, three hundred and sixty reais and forty one cents) to the ELETROS case.
Company practice or that of subsidiary which caused the contingency	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 and given as settled by the

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plaintiffs at the time. However the plaintiffs started legal proceedings aimed at applying the decision on a matter judged in the STJ for savings accounts books, to contracts concluded with Vale. Vale maintains that repayment of inflationary purges is not due.

4.7 Other significant contingencies

We are currently involved in discussion with Swiss authorities regarding the granting of tax benefits to our Swiss subsidiary, Vale International. The dispute was resolved in December 2012 when Vale International paid the additional federal taxes 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 we expect to make the final payment 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

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

(i)

Cooperation Agreement not resulting from Administrative / Legal Proceeding
Origin: Terms of Engagement signed with the Indigenous Community (TI) Mãe Maria

a) Parties	Vale, Indigenous Association Te Mêmpapytarkate Akrãtikatêjê da Montanha, Jê Jõkrityiti (Akrãkaprekti) Association, Indigenous Association Parkatêjê Amjip Tar Kaxuwa and Indigenous Association Kyikatêjê
b) Agreement Date	03/01/2012, 07/27/2012, 07/24/2012, and 08/02/2012
c) Description of the facts that have led to entering this agreement	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. 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.
d) Commitments made	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 our facilities, in particular the Carajás Railroad, and they also authorize the Indigenous Component study and the Basic Environmental Plan (PBA), documents that are required for the

	licensing process to expand the Carajás Railroad.
e) Deadline, if any	Many different deadlines, with commitment to be met up to the end of the installation project of the Carajás Railroad expansion.
f) Information about the conduct adopted to comply with the commitments made in the agreement	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) Consequences in the event of noncompliance	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

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	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, 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) Other notes	-

(ii)

Legal Agreement
Origin: Proceeding no. 21337.52.2011

a) Parties	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) Agreement Date	03/08/2012
c) Description of the facts that have led to entering this agreement	The Federal Prosecution Office has accused Vale, who subsidized the licensing process for the Carajás Railroad expansion, of lacking the environmental study investigating the diagnostic impact of the expansion on the two *quilombo* communities located in the State of Maranhão.
d) Commitments made	(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.
e) Deadline, if any	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 operation and activities in the region (estimated to happen in 2013); (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 (activities underway and estimate to be concluded in December 2013).
f) Information about the conduct adopted to comply with the commitments made in the agreement	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 the company. The commitments and deadlines reflect the item above.
g) Consequences in the event of noncompliance	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.
h) Other notes	-

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(iii)

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) Parties	Labor Prosecution Office and Vale S.A.
b) Agreement Date	12/15/20014
c) Description of the facts that have led to entering this agreement	Need to train and hire people with disabilities to meet legal requirements, in particular the quota set forth in article no. 93 of Law no. 8.212/91
d) Commitments made	To 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) Deadline, if any	The TAC is renewed yearly and it indicates the year s quota for training and hiring.
f) Information about the conduct adopted to comply with the commitments made in the agreement	Development of an inclusion program for people with disabilities.
g) Consequences in the event of noncompliance	R$ 1,000.00 per worker that is not trained and hired, within the quota for that particular year
h) Other notes	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 .

(iv)

Environmental Obligation Agreement: TCA at do Pico do Itabirito
Origin: Public Civil Investigation no. 319.02.0001-8 MPMG

a) Parties	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) Agreement Date	7/9/2010
c) Description of the facts that have led to entering this agreement	Agreement signed for the enforcement of protection measures to the area known as Pico do Itabirito and archeological site of Cata Branca.
d) Commitments made	Environmental and landscape remediation in protected areas.
e) Deadline, if any	Schedule presented to the State Prosecution Office expected conclusion: July 2015.
f) Information about the conduct adopted to comply with the commitments made in the agreement	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) Consequences in the event of noncompliance	Fine R$2,500.00/day delaying enforcement of the agreed and non-complied with portion.
h) Other notes	-

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 Vale, the main factors of market risk to which the company is exposed are:

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

Risk of product and inputs prices

Vale 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.

Exchange risk and interest rate

Company s cash flow is subject to the volatility of various currencies, since the prices of its products are mostly indexed to the U.S. dollar, while significant portion of costs, expenses and investments are indexed to other currencies, mainly the Brazilian real and Canadian dollar.

Vale is also exposed to interest rates on loans and financing. The debts linked to floating interest rates in U.S. dollar consist mainly in loans including pre-payment of exports operations, and loans at commercial banks and multilateral organizations. In general, these debts are indexed to Libor (*London Interbank Offered Rate*). While considering the effects of interest rate volatility onto cash flow, Vale considers the 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, 2012, 64.6% of our debts were denominated in U.S. dollar (USD) corresponding to R$ 39,949 million, from which R$ 37,544 million linked to fixed interest rates and R$ 2,405 million indexed to Libor. Another 28.7% of the debt was denominated in reais (R$) corresponding to R$ 17,725 million, from which R$ 9,759 million linked to DI Rate, R$ 6,317 million linked to TJLP, and R$ 1,649 million linked to fixed interest rates. The remaining 6.8% of the debt were denominated in Euro ( ), corresponding to R$ 4.175 million linked to fixed interest rate.

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

5.2 Description of the policy for management of market risks

Vale 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 the risk 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 those arising out of liquidity 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, strengthening its capital structure and asset management, ensuring flexibility and solidity in financial management, 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.

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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 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, as well as ensuring strategies adherence to proposed goals.

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:

- 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,

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indexed to the CDI to U.S. dollars, in loans and financing contracts. In these operations, Vale pays fixed 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.

- Currency cash flow hedge: In order to reduce the volatility of the cash flow, swap transactions were made to mitigate the exchange rate exposure originated by the currency mismatch between revenues in U.S. dollars and costs of investments in reais. On December 31, 2012 there were no open positions for this program.

- Protection Program for loans and financing in Euros: In order to reduce the volatility of the cash flow and 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.

- 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 interest rates: Vale carried out 10-year Treasury operations during the last quarter in 2011 in order to ensure partial protection against the cost of debt related to said rate. This program was discontinued in January 2012.

- Hedge program for the selling of nickel: The objective of this program is to reduce the volatility of cash flows, whereby Vale carried out hedge operations fixing the pricing of part of the sales in the period. On December 31, 2012, there were no outstanding positions in this program.

- 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. When the Hedge program for selling of nickel is performed, the Sales program for nickel at a fixed price is discontinued. On December 31, 2012, there were no outstanding positions in this program.

- Protection Program for purchase transactions of nickel: Protection 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 Nickel (concentrated, cathode, sinter and other types) and the reselling 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.

- 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

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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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customers. In this case, operations usually made are sales for future liquidation either in the Stock Market (LME) or over-the-counter.

- Protection 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. On December 31, 2012, there were no outstanding positions in this program.

On December 31, 2012, the value of the principal and interest of the debts denominated in reais and translated into US dollars by swap transactions was R$ 16,812 million (US$ 8,227 billion) and the value of the principal and interest of the debts denominated in Euro and translated into US dollars by swap transactions was 1,000 million (US$ 1,319 million). The average cost of these operations was 3.16% after swap transactions. Due to market liquidity conditions, the average term of swap transactions could be shorter than the debt average term.

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.

On December 31, 2012, Vale held outstanding positions classified as cash flow hedge. 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.

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 monthly 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.

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To avoid potential non-matching due to item (iii.b) above, if during monthly 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

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.

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, and periodically reporting, through the coordinator, 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, 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 monthly 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.

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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

In 2010, the Benchmark iron ore pricing system (annual reference prices) was replaced by iron ore price index. As it promptly reflects market price variations, the company expects that adoption of price index contracts offer better volatility to the cash flow. For more information about the iron ore pricing system, see item 10.2 in this Reference Form.

5.4 Other relevant information

In line with the integrated view of risks exposure, Vale considers in risk management, additionally to market risk management, the risk 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 those arising out of liquidity 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. 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 the portfolio and clients. The approved global and working capital limits, embedded into this limit, are monitored on a monthly basis.

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.

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.

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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 counterparts with past due receivables.

Credit Risk Assessment for treasury operations (cash flow investments and financial hedges)

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, counterparts 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 joint variation of market risk factors affecting the value of the derivative instrument.

Vale also uses a risk assessment classification to evaluate the counterparts 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 credit facility available today was 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.

Thus, operational risk mitigation is performed by creating new controls and improving existing ones, preparation of new mitigation plans, as well as risk transfer through insurance, when applicable. Therefore, the Company seeks to have a clear view of its major risks, the best cost-benefit mitigation plans and controls in place, monitoring potential impact of operational risks and allocating capital efficiently.

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, 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

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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 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

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

6.3 Brief History

Vale was initially founded by the Brazilian Federal Government (Government of Brazil) on 06.01.1942, through Decree-Law No. 4352, and definitively on 01.11.1943, 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 03.05.1997, the Extraordinary General Assembly approved on 04.18.1997 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 05.06.1997 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 03.20.2002 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. 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 10.04.2002, the proper certification of the Participatory Debentures was obtained from CVM, the Securities Commission, allowing their trading on the secondary market.

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

1942

• President Getulio Vargas, by Decree-Law nº 4352 of 06.01.1942, 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 1.11.1943, as mixed economy Company, pursuant to Decree-Law n º 4.352/42.

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

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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.

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).

1979

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

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1980

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

1982

• With the start of Valesul Aluminio 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 Maranhao.

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 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

• 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.

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• 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.

• In October 2001, the General Assembly of Shareholders approves the incorporation of wholly owned subsidiary Samitri, without issuing new shares and with no capital increase in Vale, 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.

• 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 10.31.2001 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).

• 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.

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 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.

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• 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.

• 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 Aluminio 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.

• 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 Usiminas steel company in Minas Gerais - (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 Logistica 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.

• 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).

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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 JV s in which it participates (Itabrasco, Kobrasco and Nibrasco).

• 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.

• 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.

• 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.

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• 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, 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 (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 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$ 74 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 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 announced on 05.02.2010 with Norsk Hydro ASA (Hydro) 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 22% of the outstanding common shares of Hydro and US$ 503 million in cash. Additionally, Vale sold 60%

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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.

• 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, for R$ 3.8 million.

• In June 2011, Vale 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 signed an agreement to create a joint venture with Vale Fertilizantes for purposes of exploring the concession of Terminal Portuário da Ultrafértil (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 Fert, representing 82.8% 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$2.1 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, 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.

• In May 2012, 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.

• 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 and certifies its environmental feasibility.

• In August, Vale 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 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, 2012, 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, 2012, Vale concluded the annual evaluation of Onça Puma and aluminum assets, implying recognition of the impairment before tax of US$4.2 billion, with accounting impact on 2012 4Q.

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6.5 - Description of main corporate events undergone by the Company, its subsidiaries and related companies

2010

Incorporation of the Sociedade de Mineração Estrela de Apolo S.A. (Estrela de Apolo) and Mineração Vale Corumbá S.A. (Vale Corumbá)

On January 22, 2010 Vale approved the incorporation of its wholly owned subsidiaries Estrela de Apolo and Vale Corumbá, without issuing new shares and with no change in Vale capital, at their respective book asset value, with the release of their assets to Vale. According to the Appraisal Reports, produced by Domingues e Pinho Accountants on 31.10.2009, the asset value of *Estrela de Apolo* was R$ 4,160.00 and the net worth of Vale Corumbá was R$ 354,766,285.89. The main objective of the incorporations was to simplify corporate structure and optimize resources and costs.

Sale of assets of Valesul

On January 22, 2010, integrated subsidiary Valesul Alumínio S.A. (Valesul) entered into an agreement to sell its aluminum assets, located in Rio de Janeiro, to Alumínio Nordeste S.A., a member company of Metalis group, for US$ 31.2 million (equivalent to R$ 55,9 million on the date of receipt), received in a one-time payment. The operation was concluded on June 18, 2010.

The assets of Valesul included in the agreement are: (i) anode factory, (ii) reduction, (iii) foundry, (iv) industrial and administrative service area, and (v) inventories.

The operation was approved by CADE (Economic Defense Administrative Council) on 02/09/2011.

Acquisition of iron ore deposits (Simandou)

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), which holds concessions for iron ore in Guinea, Simandou South (Zogota) and exploration permits for Simandou North (Blocks 1 & 2), in the Republic of Guinea. Vale will pay US$ 2.5 billion for the acquisition of these assets, of which $ 500 million (equivalent to R$ 865 million on the date of transaction) has already been paid in cash, and the remaining US$ 2 billion will be paid in tranches subject to the achievement of specific milestones.

The joint venture between Vale and BSGR started the implementation of the Zogota project and is conducting feasibility studies for Blocks 1 & 2, with the creation of a logistics corridor for the flow of materials through Liberia. For the right to move goods through Liberia, the joint venture is committed to renew 660 km of the Trans-Guinea railway for passenger and light cargo. Vale is now responsible for asset management, marketing and sales of the joint venture with the exclusive off-take of the iron ore produced. Vale is a party in VBG shareholders agreement, entered with BSGR.

Acquisition of fertilizer assets

On May 27, 2010, Vale completed the acquisition through its subsidiary Mineração Naque S.A., of a direct and indirect stake of 58.6% in the capital of Vale Fertilizantes a company listed on the BM&F Bovespa exchange and the largest Brazilian producer of fertilizer nutrients - and the Brazilian fertilizer assets of Bunge Participacoes e Investimentos SA (BPI) for a total of US$ 4.7 billion, in a one-time payment. Of this amount, US$ 3.0 billion (equivalent to R$ 5.5 billion at the time of payment) relates to a direct and indirect stake of 58.6% in the capital of Fosfertil, which represents 72.6% of common shares and 51.4% of the preferred shares of Bunge Fertilizantes S.A., Bunge Brasil Holdings B.V., Yara Brasil Fertilizantes S.A. (Yara), Fertilizantes Heringer S.A. (Heringer) and Fertilizantes do Paraná Ltda. (Fertipar) - equivalent to a price per share of US$ 12.0185. The remaining US$ 1.7 billion (equivalent to R$ 3.1 billion at the time of payment) is attributable to the acquisition of the Brazilian fertilizer asset portfolio of BPI Bunge Participações e Investimentos S.A. (BPI), which includes mining of phosphate rock and phosphate production units but does not include distribution/retail operations.

Additionally, on September 29, 2010 Vale completed the acquisition, for approximately US$ 1,0 billion (equivalent to R$ 1.76 billion on the date of transaction) in a one-time payment, of 20.27% of the capital of Vale Fertilizantes held by The Mosaic Company (Mosaic), corresponding to 27.27% of the common shares and 16.65% of the preferred shares of the company. Vale thus proceeded to hold 78.90% of the

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capital of Vale Fertilizantes, composed by 99.81% of the common shares and 68.24% of the preferred shares of the company.

Besides, under Brazilian corporate law and the norms of the capital market, Vale issued a mandatory tender offer (public offer for acquisition or OPA , according to the initials in Portuguese) to acquire up to the entirety of the common shares issued by Vale Fertilizantes outstanding in the market at a value of US$ 12.0185 per share, converted into Brazilian reais, the same price paid to other shareholders of Vale Fertilizantes. As a result of the OPA, in December 2010 Vale increased its direct and indirect interest in Vale Fertilizantes to 99.83% of the total common shares and 78.92% of the total capital.

The operation was approved by the Brazilian regulating authority on Feb 23, 2011.

Disposal of minority interests in Bayóvar

On July 7, 2010, Vale completed the transaction announced on 3.31.2010, by virtue of which it sold to The Mosaic Company (Mosaic) and Mitsui & Co. Ltd. (Mitsui) minority stakes in the Bayovar phosphate rock project located in Peru, through newly created MVM Resources International B.V. (MVM), which manages and operates the project.

Vale sold 35% of the total capital of MVM to Mosaic for US$ 385 million (equivalent to R$ 682 million on the date of transaction), in a one-time payment, and 25% of the total capital of MVM to Mitsui for US$ 275 million (equivalent to US$ 487 million on the date of transaction), in a one-time payment. Vale maintains control of the Bayóvar project, with 51% of the voting capital and 40% of the total capital of MVM, and is party in a shareholders agreement entered with Mitsui and Mosaic.

Sale of minority interest in Vale Oman Pelletizing Company

On May 29, 2010, Vale entered into an agreement with Oman Oil Company S.A.O.C. (OOC), an integrated subsidiary of the government of the sultanate of Oman, to sell a 30% interest in Vale Oman Pelletizing Company LLC (VOPC) for an amount equivalent in *Omani Rials* to US$ 125 million (equivalent to R$ 228 million on the date of closing of agreement). Payment was agreed as follows: (i) US$ 71 million paid by OOC against transfer of all the shares held by Vale Mauritius Limited; and (ii) US$ 54 million by assuming the debt originally contracted by VOPC along with Vale International. VOPC is a subsidiary that was created by Vale to build and operate a pelletizing plant in the Industrial District of Porto de Sohar, in Oman. The transaction was concluded in October 2012, upon compliance with conditions set forth in the stock purchase and sale agreement. The Shareholders Agreement entered into with OOC, in turn, provides for the operational and administrative management of the pelletizing plant by Vale.

Increased participation in Belvedere

On June 1, 2010, Vale acquired from AMCI Investments Pty Ltd (AMCI) for US$ 92 million (equivalent to R$ 168 million on the date of payment), in a one-time payment, an additional share of 24.5% in the Belvedere coal project. As a result of this transaction, Vale s participation in Belvedere goes from 51.0% to 75.5%. On January 31, 2013, Vale entered into additional purchase agreements, upon acquisition of an additional 24.5% interest in the Belvedere coal project (Belvedere) from 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 recently determined by an independent evaluation, hired by Vale and Aquila. The acquisition is subject to approval by the government of Queensland, Australia. As result of this transaction, Vale will increase its share into Belvedere to 100%. Additionally, Vale 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 will have 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 is in the initial development phase, and consequently, subject to approval 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.

Sale of interest in PPSA

On June 29, 2010, Vale signed a sales agreement with Imerys S.A. (company listed in Euronext) to sell its interest of 86.2% in Pará Pigmentos S.A. (PPSA) and other kaolin mining rights located in Pará for US$ 74 million (equivalent to R$ 131 million on the date of transaction), in a one-time payment. The operation

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was concluded on July 26, 2010 and approved by the Brazilian regulating authority on December 15, 2010.

Acquisition of interest in SDCN

On September 21, 2010, Vale acquired 51% of Sociedade de Desenvolvimento do Corredor Nacala S.A. (SDCN) for US$ 21 million (equivalent to R$ 36.6 million on the date of payment), in a one-time payment, from Mozambican company SGPS SA (Insitec). SDCN holds, indirectly, concessions to create the logistics structure required for the production flow resulting from the second phase of Moatize coal project. SDCN controls, through a 51% interest, Corredor de Desenvolvimento do Norte S.A. (CDN) and Central East African Railway Limited (CEAR). CDN is responsible for the concession of a railway section of 872 km in Mozambique, linking Entrelagos, in the province of Niassa, with the port of Nacala, in the province of Nampula, to the North of Mozambique and the port of Nacala. CEAR holds the concession of the whole railway system of Malawi, currently consisting of 797 km of railway lines connecting the whole country along the north-south and east-west axes. CDN and CEAR railway systems are interconnected and close to Moatize mineral region, in the province of Tete, Mozambique, therefore providing an additional logistic corridor for the coal to be produced in the area. Vale is party in a SDCN shareholders agreement. Additionally, there is a shareholders agreement of CDN and another of CEAR, executed with SDCN and CFM (holder of the remaining 49% interest in each company).

2011

Restructuring of aluminum assets portfolio

On February 28, 2011, Vale announced the completion, through subsidiary Vale Austria Holdings GmbH, of the operation with Norsk Hydro ASA (Hydro) (company listed in the Oslo Stock Exchange and London Stock Exchange) 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), along with their respective rights of exclusivity, commercial agreements and net debt of US$ 655 million, for 22% of the outstanding common shares of Hydro and US$ 503 million (equivalent to R$ 836 million on the date of transaction) in cash, after adjustments, in a one-time payment.

Besides, Vale created a new company, Mineração Paragominas S.A. (Paragominas), to which it transferred the bauxite mine of Paragominas and all the other mining rights relating to bauxite in Brazil. As a part of this transaction, Vale sold 60% of Paragominas to Hydro for US$ 578 million (equivalent to R$ 960 million on the date of transaction), in a one-time payment, in cash. The remaining portion of 40% will be sold in two equal parts of 20% within 3 and 5 years, for US$ 200 million in cash.

Pursuant to the terms of the operation, Vale will not be allowed to sell its shares issued by Hydro for a period of 2 years nor will it be allowed to increase its interest in Hydro beyond 22%. Besides, as another part of the agreement, Vale is entitled to appoint a representative in the Board of Directors of Hydro. The operation was approved by Brazilian regulating authorities on January 19, 2011 and the Korean and Japanese regulating authorities on April 15, 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$ 290.2 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 focus on global sustainability. The operation was approved by Brazilian regulating authorities on May 18, 2011.

Acquisition of an interest in Belo Monte power project

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

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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 signed an agreement to incorporate a *joint venture* with Vale Fertilizantes for purposes of exploring the concession of the Terminal Portuário da Ultrafértil (TUF). TUF 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. Vale will hold a 51% interest in the joint venture, acquired upon payment of R$150 million to Vale Fertilizantes and capital investment in the joint venture of R$432 million to fund TUF s investment plan. The joint venture positions Vale to serve, in a competitive way, the agribusiness growth in Brazil. Simultaneously, the investment in TUF strengthens the logistic infrastructure of the fertilizer business helping to make expansion feasible in the coming years.

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.

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Sale of Coal Assets from Colombia

On May 28, 2012, 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 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 9, 2012, 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 on the transaction date) 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 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 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 preserver 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 signed with Petrobras an agreement to sell 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 equivalent to the royalties owned by Vale relative to the potash assets leasing and mining rights at Taquari-Vassouras and the Carnalita project. The sale is subject to the fulfillment of preconditions, including approval by the Administrative Council for Economic Defense (CADE). 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.

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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 R$ 82 million on the transaction date), in cash. Besides, the sale exempts Vale from investment liabilities in the amount of US$ 80 million until the end of 2013. The completion of this transaction is subject to the fulfillment of usual precondition and approval. 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.

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.

As indicated in item 6.5 of this Reference Form, 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), which holds concessions for iron ore in Guinea, Simandou South (Zogota) and exploration permits for Simandou North (Blocks 1 & 2), in the Republic of Guinea.

VBG mining project is currently under review by a technical commission created by the government of Guinea and, for this reason, we suspended the works on this project. We acquired our share for US$ 2.5 billion, where US$ 500 million were paid at the closure and the balance is to be paid upon specific milestones, and an additional US$ 180 million, if specific conditions are complied with by December 2012. The seller, holding 49% of VBG, required that Vale made the additional payment, claiming that conditions were complied with. We argued that this claim is not applicable considering that conditions were not complied with and, additionally, there was a force majeure event, under the terms of the agreement. We intend to strongly defend our position should the seller files any procedure requesting payment.

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7.1 Description of activities engaged by the issuer and its subsidiaries

Vale is the 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). To sustain its growth strategy, Vale is actively engaged in mineral exploration in 15 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 to transport iron ore. 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.

(iii) Fertilizers Includes three important nutrient groups: potassium, phosphates and nitrogen. This is a new 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.

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

In R$ thousands	2012		2011		2010	
Segment	Net Revenue	% of total	Net Revenue	% of total	Net Revenue	% of total
Bulk Materials	68,901,475	74	77,226,147	76	61,482,495	74
Base Metals	13,933,389	15	16,069,590	16	14,377,415	17
Fertilizers	7,008,169	7	5,551,489	5	3,013,814	4
Logistics	2,709,634	3	2,367,163	2	2,773,115	3
Other Investments	958,810	1	804,837	1	1,578,167	2
Total Revenue	**93,511,477**	**100**	**102,019,226**	**100**	**83,225,006**	**100**

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

In R$ thousand	2012		2011		2010	
Segment	Profit/Loss	% of total	Profit/Loss	% of total	Profit/Loss	% of total
Bulk Materials	20,084,008	206	36,286,626	96	30,855,508	103
Base Metals	(9,200,185)	-95	3,291,738	9	(739,403)	-2
Fertilizers	2,345,589	24	81,568		(58,874)	
Logistics	(320,549)	-3	(39,759)		453,328	2
Other Investments	(3,175,169)	-33	-(1,806,449)	-5	(440,508)	-1
Net Profit of the period	**9,733,696**	**100**	**37,813,724**	**100**	**30,070,051**	**100**

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

ii. participation in each market

d. Possible seasonality

1. <u>Bulk materials</u>

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 directly and through its 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 Centralwestern System through 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 guaranteed for undetermined period.

Firm / Mining System	**Location**	**Description / History**	**Mining**	**Operations**	**Power source**	**Access / Transportation**
Vale Northern System	Carajás, Pará	Open-pit mines and ore processing plants. Divided into North Range, South Range, and East	High grade hematite (66.7% on average).	One-pit mining operations. The beneficiation process consists simply of sizing operations,	Power provided by the national power network, acquired	The iron ore is transported by the Carajás Railroad (EFC) to the Ponta da Madeira maritime terminal

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Firm / Mining System	Location	Description / History	Mining	Operations	Power source	Access / Transportation
		Range (North, South, and East). Since 1985, we have been conducting mining activities in the northern range, which is divided into three main mining bodies (N4W, N4E and N5).		including screening, hydrocycloning, crushing and filtration. The beneficiation process produces sinter feed and pellet feed.	from regional utility companies.	in the state of Maranhão.
Southeastern System	Iron Quadrangle region of the state of Minas Gerais	Three locations: Itabira (two mines, with two important processing plants), Minas Centrais (three mines, with three important processing plants and one secondary plant) and Mariana (three mines and four processing plants).	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.	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.	Power provided by the national power network, acquired from regional utility companies or produced directly by Vale.	The Vitória a Minas Railroad (EFVM) connects these mines to the Tubarão port.
Southern System	Iron Quadrangle region of the state of Minas Gerais	Three major locations: Minas Itabirito (four mines, with two major beneficiation plants and three secondary beneficiation plants); Vargem Grande (three mines and one major beneficiation plant); and Paraopeba (four mines and three beneficiation plants).	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.	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.	Power provided by the national power network, acquired from regional utility companies or produced directly by Vale.	Our affiliate MRS transports our ore products from the mines to Guaíba Island and Itaguaí maritime terminals in the state of Rio de Janeiro.
Centralwestern System (1)	State of Mato Grosso do Sul	Comprised of Urucum and Corumbá mines.	The iron ore reserves in Urucum and	Open-pit mining operations. The ROM is processed	Power provided by the national power network,	The iron ore products from the Urucum and

	Open-pit mining operations.	Corumbá contain a high level of hematite ore that mainly generates granulated ore.	through standard crushing, followed by	acquired from	Corumbá mines are delivered to clients through Vale vessels sailing on

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Firm / Mining System	Location	Description / History	Mining	Operations	Power source	Access / Transportation
				classification, producing granulated and fine.	regional utility companies.	Paraguay and Paraná rivers.
Samarco	Iron Quadrangle region of the state of Minas Gerais	Integrated system comprised of two mines, two processing plants, one pipeline, 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 utility 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 Centralwestern 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 (million metric tons) 2010	2011	2012	Recovery Rate (%)
Southeastern System					
Itabira					
Cauê	Open pit	19.3	18.6	17.8	63,4
Conceição	Open pit	19.4	21.4	19.9	76,0
Minas Centrais					
Água Limpa(1)	Open pit	5.0	5.0	4.6	46,6
Gongo Soco	Open pit	6.8	5.3	4.4	99,7
Brucutu	Open pit	29.7	30.9	31.7	76,8
Mariana					
Alegria	Open pit	13.6	14.7	14.7	84,2
Fábrica Nova	Open pit	12.5	13.2	13.0	70,1
Fazendã	Open pit	10.6	11.1	9.5	100,0

Total Southeastern System		**116,9**	**120.2**	**115.6**	
Southern System Minas Itabirito					
Segredo/João Pereira	Open pit	12.4	11.8	12.2	75,7
Sapecado/Galinheiro	Open pit	17.7	18.6	19.6	69,6
Vargem Grande					
Tamanduá(8)	Open pit	8.6	8.8	9.7	80,6
Capitão do Mato	Open pit	8.2	7.3	7.3	80,6
Abóboras	Open pit	5.2	5.3	5.6	100,0
Paraopeba					

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Mine/Plant	Type	2010	Production for fiscal year ended on December 31 2011 (million metric tons)	2012	Recovery Rate (%)
Jangada	Open pit	3.5	5.1	6.1	100,0
Córrego do Feijão	Open pit	6.8	6.8	6.8	79,8
Capão Xavier(9)	Open pit	9.3	8.4	9.6	84,8
Mar Azul	Open pit	3.0	4.1	3.3	100,0
Total Southern System		**74,7**	**76.3**	**80.3**	
Centralwestern System					
Corumbá	Open pit	2.8	4.1	4.6	76.6
Urucum	Open pit	1.4	1.5	1.8	77.9
Total Centralwestern System		**4.2**	**5.6**	**6.4**	
Northern System					
Serra Norte					
N4W	Open pit	33.4	38.9	39.3	91,4
N4E	Open pit	22.2	20.1	18.7	91,4
N5	Open pit	45.6	50.8	48.8	91,4
Total Northern System		**101,2**	**109.8**	**106.8**	
Vale		297,0	311.8	309.0	
Samarco (2)		10,8	10.8	10.9	56.8
Total		**307,8**	**322.6**	**320.0**	

(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.

1.1.3. Pellet Operations

Directly and through joint ventures, Vale produces pellets in Brazil, in Oman and in China, as shown in the table below. Our estimated total nominal capacity is 57.2 Mtpa, including the total capacity of Oman plants, but without including our joint ventures Samarco, Zhuhai YPM Pellet Co., Ltd. (Zhuhai YPM) and Anyang Yu Vale Yongtong Pellet Co., Ltd. (Anyang). Of our total 2012 pellet production, including the production from our joint ventures, 65.3% was blast furnace pellets, and the remaining 34.7% was direct reduction pellets, which are used in steel mills that employ the direct reduction process rather than blast furnace technology. We sold iron ore to our pelletizing plants and joint ventures, except for Samarco, Zhuhai YPM and Anyang, to whom we supplied only part of the required ore In 2012, we sold 2.4 million metric tons to Hispanobras, 10.2 million metric tons to Samarco and 0.9 million metric tons to Zhuhai YPM.

Firm / Plant	Description / History	Nominal capacity (Mtpa)	Power source	Other information	Our participation (%)	Partners
Brazil:						
Vale						
Tubarão (State of Espírito	Our two pelleting units (Tubarão I and II) and leasing of five plants,	29.2	Power provided by the national power network, acquired from regional	Pelleting operations held in Tubarão I and II are suspended since		

Santo)	including Hispanobras, on July 1, 2012. The iron ore is received from our mines in the Southeastern System and distribution is done by our logistics	utility companies or produced directly by Vale.	November 13, 2012, due to changes in the demand of the steel industry for raw material (reduction in pellet consumption in

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Firm / Plant	Description / History	Nominal capacity (Mtpa)	Power source	Other information	Our participation (%)	Partners
	infrastructure.			favor of *sinter feed*)		
Fábrica (State of Minas Gerais)	Part of the Southern System. Receives iron ore from the mine Fábrica. Production is transported through MRS Logística S.A. (MRS) and EFVM.	4.5	Power provided by the national power network, acquired from regional utility companies or produced directly by Vale..	-		
Vargem Grande (State of Minas Gerais)	Part of the Southern System. Receives iron ore from the mine Pico, and production is transported through MRS.	7.0	Power provided by the national power network, acquired from regional utility companies or produced directly by Vale..	-		
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 utility companies or produced directly by Vale..	On October 8, 2012, we temporarily 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.		
Samarco	Three pelleting units in two operating 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 utility companies or produced directly by Samarco.	Construction 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
Oman:						
Vale Oman Pelletizing Company LLC	Sohar Industry Complex. Two pelleting plants	9.0	Power provided by the national	Both plants are operating at full capacity since	70.0	Oman Oil Company S.A.O.C.

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Firm / Plant	Description / History	Nominal capacity (Mtpa)	Power source	Other information	Our participation (%)	Partners
(VOPC)	(total capacity of 9.0 Mtpa for direct reduction pellets). Pelleting plants are located in an area where there will be a distribution center with processing capacity of 40.0 Mtpa.		power network.	March 2012. In October 2012, according to the Shareholders Agreement dated May 29, 2010, signed between Vale International and Oman Oil Company S.A.O.C. (OOC), 30% of VOPC interest was transferred to OOC for US$ 71 million.		
China:						
Zhuhai YPM	Part of the Yueyufeng Steel Complex. Port facilities, we use to receive *pellet feed* from our mines in Brazil. Main customer is Zhuhai Yueyufeng Iron & Steel (YYF), 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., Pioneer Iron and Steel Group Coo, Ltd.(1)
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) Based on the most recent business license held by Zhuhai YPM filed publicly.

1.1.4. Pellet Production

The table below provides information regarding our main pellet production.

Firm	Production for fiscal year ending on December 31 2010	2011	2012
	(million metric tons)		
Vale(1)	36.3	39.0	40.2
Hispanobras(2)	1.9	2.1	4.3

Samarco (3)	10.8	10.7	10.7
Zhuhai YPM (3)	0.3	0.3	0.2
Anyang (3)		0.2	0.2
Total	**49.3**	**52.3**	**55.6**

(1) Figure reflects actual production, including the total 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

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in June 2008. We signed a 30-year operating lease contract for Nibrasco s two pellet plants in May 2008.

(2) Production figures in 2012 are 100% consolidated in a pro-forma basis. On July 1, 2012, we signed a three-year operating lease contract for Hispanobras pelleting plant.

(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 2012, China accounted for 49% of our iron ore and pellet shipments, and Asia, as a whole, accounted for 66.2%. Europe accounted for 17.1%, followed by Brazil with 11.7%. Our ten largest customers collectively purchased 112 million metric tons of iron ore and pellets from us, representing 37% of our shipments and 35% of our total iron ore and pellet revenues in 2012. In 2012, no individual customer accounted for more than 10.0% of our iron ore and pellet shipments.

In 2012, 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 sale, usually related to the Chinese spot market, including quarterly pricing (based on the current quarter or average values outdated by price indexes), monthly average of price indexes, and daily prices defined at specific dates.

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 main 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 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 is many times more important to customers than a freight differential. Second, steel companies often develop sales relationships based on a reliable supply of a specific mix of iron ore and iron ore pellets. We have a customer-oriented marketing policy and place specialized personnel in direct contact with our customers to help determine the blend that best suits each particular customer.

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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 a floating transfer station in the Philippines, which are operating. We are also building another floating transfer station in Asia, to be concluded in 2013, and we are investing in another distribution center in Malaysia. Additionally, we ordered new ships, purchased used vessels and entered into medium and long-term freight contracts. 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, which operates the Moatize mine, and Vale Australia, which operates coal assets in Australia by wholly-owned subsidiaries and joint ventures. From 2009 to June 2012, we also conducted thermal coal operations in Colombia. In June 2012, we sold our thermal coal operations in Colombia for US$407 million, paid in cash. 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
Mozambique						
Vale Moçambique						
Moatize	Tete, Mozambique	Open pit mine developed directly by Vale. Operations started in August 2011 and should	Produces metallurgic and thermal coal. The main brand product of Moatize is Chipanga premium	Mining concessions end in 2032, renewable	Power provided by local utility companies.	Coal is transported from the mine to the Beira

	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.	hard coking coal, but there is operational flexibility for other products. The ideal product portfolio will come as result	after this date.	Supply of local back-up.	Port through railroad Linha do Sena.

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Company / Mining complex	Location	Description / History	Mining / Operations	Mining license	Power source	Access / Transportation
			of market surveys.			
Australia						
Integra Coal	Hunter Valley, New South Wales	Open pit and underground mine acquired with AMCI Investments Pty Ltd (AMCI) 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 (NSC), JFE Group (JFE), Posco, Toyota Tsusho Australia, Chubu Electric Power Co. Ltd.	Produces metallurgic and thermal coal. Operations include a coal underground mine that produces through the *longwall* methods and an open pit mine. The coal is processed in a coal handling and preparation plant (CHPP) with capacity of 1,200 metric tons an hour.	Mining licenses expire in 2026 and 2030.	Power provided by the national power network, acquired from regional utility companies.	Production is carried in trains in a cargo railroad especially built to carry the product to the Newcastle Port, New South Wales, Australia.
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 (ICP). 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 172 km to the Dalrymple Bay Coal Terminal, in Queensland, Australia.
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 *joint venture*. 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.	Mining licenses expire in 2025.	Power provided by the national power network, acquired from regional utility companies.	Carried for 180 kilometers to the Dalrymple Bay Coal Terminal.
China						

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	Metallurgic and thermal coal and other related products.	Mining concessions end in 2034.	Power provided by the national power network, acquired from regional	Products are carried by truck or train directly to customers in China or carried by

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Company / Mining complex	**Location**	**Description / History**	**Mining / Operations**	**Mining license**	**Power source**	**Access / Transportation**
		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.			utility companies.	truck or train to the Lianyungang port
Yankuang	Shandong Province, China	Metallurgic cock 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. Ltd and Itochu Corporation. The plant was comprised by three shareholders.	Metallurgic cock, methanol, tar oil and benzene. Yankuang has production capacity of 1.7 Mtpa of cock and 200,000 tpa of methanol.	Mining concessions end in 2034.	Power provided by the national power network, acquired from regional utility companies.	Most of the cock 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 coal production.

Operation	**Mine type**	**Production during fiscal year ending December 31 (thousand metric tons)**		
		2010	**2011**	**2012**
Metallurgic coal:				
Vale Australia				
Integra Coal(5)	Underground and open pit	1,151	467	962
Isaac Plains(1)	Open pit	590	635	709
Carborough Downs(2)		1,216	1,390	911
	Underground			
Broadlea	Open pit	101	0	0
Vale Moçambique				
Moatize(3)	Open pit		275	2,501
Total metallurgic coal		**3,057**	**2,766**	**5,083**

Thermal coal:				
Vale Colombia				
El Hatillo(4)	Open pit	2,991	3,565	
Vale Australia				
Integra Coal(5)	Open pit	305	325	351
Isaac Plains(1)	Open pit	371	274	381
Broadlea(6)	Open pit	165	0	0
Vale Moçambique				
Moatize(3)	Open pit		342	1,267
Total thermal coal		**3,832**	**4,506**	**1,999**

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(1) These figures correspond to our participation of 50.0% in Isaac Plains, a joint venture constituted as a partnership.

(2) These figures correspond to our participation of 85.0% in Carborough Downs, a joint venture not constituted as a partnership.

(3) Moatize started production in August 2011.

(4) We sold the El Hatillo mine in the second half of 2012.

(5) These figures correspond to our participation of 61.2% in Integra Coal, a joint venture constituted as a partnership.

(6) Broadlea Coal is in repair and maintenance since December 2009. ROM inventory was concluded in June 2010.

1.2.3 Clients and sales

Coal sales at our operations in Australia are basically geared towards the Eastern Asian market. In 2012, our Chinese coal joint ventures directed their sales mainly to the Chinese domestic market. The coal sales from our Colombian operations, prior to disinvestment of our Colombian assets in June 2012 were directed mainly to Europe and South America. Coal from our Mozambique operations is directed for the main transoceanic coal markets, including Eastern Asia, Americas, Europe, and India.

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.

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 coal producers.

The main participants in the transoceanic market are subsidiaries and affiliates of BHP Billiton Mitsubishi Alliance (BMA), Xstrata plc (Xstrata), Anglo Coal, Rio Tinto, Teck Cominco, Peabody and Shenhua Group, and others.

1.3 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.

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Mining complex	Company	Location	Description / History	Mining	Operations	Power source	Access / Transportation
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.	Low content ore (24% of manganese).	Crushing, followed by 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	MCR	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.

The table below presents information on our manganese production.

Mine	Type	Production during fiscal year ending December 31 2010	2011	2012	Recovery rate
		(million metric tons)			(%)
Azul	Open pit	1.6	2.1	1.9	66.0
Morro da Mina	Open pit	0.1	0.1	0.2	82.5
Urucum	Underground	0.2	0.3	0.3	84.0
Total		**1.8**	**2.5**	**2.4**	

1.3.2 Ferroalloy production and operations

We conduct our ferroalloy businesses through our wholly-owned subsidiary Vale Manganês. Until October 2012, we also conducted ferroalloy and manganese operations in Europe through our wholly-owned subsidiaries Vale Manganèse France SAS and Vale Manganese Norway AS. These subsidiaries were sold in October 2012 to affiliates of Glencore International Plc for US$160 million in cash.

The production of ferroalloys consumes significant amounts of power, representing 6.3% of our total consumption in 2012. The power supply for our ferroalloy plants is provided through long-term contracts.

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

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Plant	Location	Description / History	Nominal capacity	Power source
Minas Gerais Plants	Barbacena and Ouro Preto	Barbacena has 6 furnaces, refinery stations for medium carbon manganese and a crushing plant. Ouro Preto has 3 furnaces.	74,000 tons 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 supplied by independent producers under long term agreements.
Bahia Plants	Simões Filho	4 furnaces, medium carbon manganese conversion process and one sintering plant.	150,000 tons per year	Power provided by the national power network. Power 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 2010	2011	2012
	(thousand metric tons)		
Barbacena	71	67	65
Ouro Preto	62	61	62
Simões Filho	73	76	79
Total	**207**	**204**	**206**

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 both 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 Vale Canada, which operates two nickel production systems, one at the North Atlantic and one in Asia-Pacific. Our nickel operations are presented in the table below.

Mining System / Company	**Location**	**Description / History**	**Operations**	**Mining license**	**Power source**	**Access / Transportation**
North Atlantic						
Vale Canada	Canada Sudbury, Ontario	Integrated mining, crushing, smelting and refining operations to turn ore into refined nickel	Primarily underground operations with sulfate nickel with copper, cobalt, PGMs, gold, and	Patented mining rights with no	Power provided by the national power	Located at the TransCanada road and two main railroads

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Mining System / Company	Location	Description / History	Operations	Mining license	Power source	Access / Transportation
		with nominal capacity of 66,000 metric tons of refined nickel per year and *feed* of nickel oxide to the refinery in Wales. Mining operations in Sudbury started in 1885. Vale acquired Sudbury upon acquiring Inco Ltd. in 2006.	silver deposits. The Frood mine (in Sudbury) was placed under repair and maintenance in October 2012. We also conduct smelting and refining of nickel concentrate at our operations in Voisey s Bay. We send an intermediate nickel product, nickel oxide, from our smelter in Sudbury to our nickel refinery in Wales to turn it into refined nickel.	expiration date; mining leases end in 2014 and 2032; and mining license with undetermined validity term.	network and produced directly by Vale.	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, *smelting* and refining operations to turn ore into refined nickel with nominal capacity of 45,000 metric tons of refined nickel per year. Thompson was discovered in 1956 and acquired by Vale upon acquiring Inco Ltd. in 2006.	Primarily underground operations with sulfate nickel. These resources also contain copper and cobalt deposits. We are considering placing the Birchtree mine under repair and maintenance. We also conduct smelting and refining of nickel concentrate at our operations in Voisey s Bay. We are considering eliminating *smelting* and refining processes in Thompson, due to the significant capital investment needed, according to federal rules of sulfur dioxide emissions to be in force in 2015 and less important priority of this project compared to other investment alternatives.	Application before competent authority matures between 2020 and 2025; mining leases end in 2013.	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, Newfound-land & Labrador	Open pit mine and ore processing into intermediate products nickel and copper concentrate. Voisey s Bay started operations in 2005 and was acquired by Vale upon acquiring Inco Ltd. in 2006.	Comprised by the Ovoid mine, an open pit mine and deposits with potential for underground operations at a later moment. We extract sulfate nickel ore, which also contain copper and cobalt	Mining concession end in 2027.	100% provided by Vale diesel generators.	Nickel and copper concentrates are carried to the port by truck and then are shipped.

	deposits. Nickel concentrates are currently sent to our operations in Sudbury and Thompson, for final processing (smelter and refinery), while copper concentrate is sold in	

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Mining System / Company	Location	Description / History	Operations	Mining license	Power source	Access / Transportation
			the market. Our Labrador nickel concentrate will be redirected to the Long Harbor plant when it is in operation.			
Vale Europe Limited	UK Clydach, Wales	Autonomous nickel refinery (producer of refined nickel), with nominal capacity of 40,000 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 operations in 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.
Asia-Pacific						
PT Vale Indonesia Tbk (PTVI, formerly known as PT International Nickel Indonesia Tbk)	Indonesia Sorowako, Sulawesi	Open pit mine and processing plant (producer of matte nickel, and intermediate product) with nominal capacity of 80,000 metric tons per year. PTVI stock are traded at the Indonesia Stock Exchange. We hold 59.2% of its capital stock, Sumitomo Metal Mining Co., Ltd (Sumitomo) holds 20.3% and 20.5% are outstanding. PVTI started operations in 1968 and was acquired by Vale in 2006.	PTVI extracts lateritic nickel ore and produces matte nickel which is sent to our 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 directly by Vale. Great part is provided at low cost by three hydroelectric power plants in the Larona River. 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 vessels to load cargo ships to send to Japan.

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Mining System / Company	Location	Description / History	Operations	Mining license	Power source	Access / Transportation
Vale Nouvelle-Calédonie S.A.S (VNC)	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 Minière du Sud Caledonien SAS (SPMSC) (5%). Sumic, a *joint venture* between Sumitomo and Mitsui, has the option to sell all its interest, by the lowest between (1) the net accounting value, according to French accounting rules, and (2) the market price, should VNC fail to reach specified production (60 days of continuous production with 80% of full capacity) by December 31, 2014. Sumic has also a buy option to 6.5% of dilution in December 2012 after commercial production at VNC. SPMSC must increase its share in VNC in 10% in up to two years after the start of commercial production.	Our nickel operations in New Caledonia are in *ramp-up*. VNC uses a high-pressure acid leaching process (HPAL) to handle lateritic limonitic and lateritic saprolitic ores. We expect a *ramp-up* in VNC in the next four 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, and hydroxide cake, and 4,500 metric tons of cobalt as carbonate.	Mining concession ending between 2016 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 port.
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%, and Sumitomo holds the remaining stock. The refinery was built in	Produces intermediate products to be treated in our refineries in China, Korea, and Taiwan, and refined nickel products using matte nickel		Power provided by the national power network . Acquired from local utilities.	Products are transported by public roads to customers in Japan. For customers abroad, products are carried into containers in the plant and sent

		1965 and acquired by Vale in 2006.	provided by PTVI.			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 operations in 1983 and was acquired by Vale in 2006.	Produces mainly refined nickel for the local stainless steel industry in Taiwan, using intermediate products from our operations in Matsuzaka.		Power provided by the national power network . Acquired from local 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.

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[redacted]						
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 operations in 2008.	Produces mainly refined nickel for the local stainless steel industry in China, using intermediate products from our operations in Matsuzaka and New Caledonia.		Power provided by the national power network . Acquired from local utilities.	Product carried by truck on public roads and railroads for customers in China. Also transported by water in containers for some 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 production in 1989.	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 local 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.
South Atlantic						
Vale/Onça Puma	Brazil - Ourilândia do Norte, Pará	Mining and processing operations (ferro-nickel producer)	The Onça Puma mine is built over a nickel deposit of lateritic and saprolitic ore. We temporarily interrupted the *ramp-up* of project Onça Puma, in Ourilândia do Norte, in the Brazilian state of Pará, but we expect to resume production initially with one furnace in the second half of 2013 to reach nominal capacity of approximately	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.

	25,000 metric tons per year. We expect to build a second furnace, to be in operation in 2017.	

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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 s Bay 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								
	2010			2011			2012		
	(thousand metric tons, except percentages)								
		Grade			Grade			Grade	
	Production	% Copper	% Nickel	Production	% Copper	% Nickel	Production	% Copper	% Nickel
Ontario operating mines									
Copper Cliff North	326	1.13	1.13	892	1.15	1.03	792	1.09	0.92
Creighton	426	2.65	3.10	991	1.72	2.22	797	1.80	1.84
Stobie(1)	775	0.59	0.69	1,568	0.61	0.74	2,006	0.56	0.66
Garson	246	2.16	1.60	640	1.78	2.08	643	1.56	1.61
Coleman	786	2.74	1.73	1,363	3.02	1.77	1,062	2.58	1.51
Ellen	86	0.56	0.75	131	0.45	0.90	371	0.44	0.93
Totten	16	2.54	1.74	28	1.01	0.97	6	2.37	1.15
Gertrude							36	0.27	0.72
Total Ontario operations	**2,660**	**1.78%**	**1.53%**	**5,612**	**1.61%**	**1.45%**	**5,714**	**1.29%**	**1.14%**
Manitoba operating mines									
Thompson	1,325		1.83	1,182		1.76	1,160		1.86
Birchtree(2)	832		1.41	721		1.36	643		1.34
Total Manitoba operations	**2,158**		**1.67%**	**1,903**		**1.61%**	**1,804**		**1.67%**
Voisey s Bay operating mines									
Ovoid	1,510	2.44	3.20%	2,366	2.39%	3.38%	2,351	1.94%	3.11%
Sulawesi operating mining areas									
Sorowako	4,176		2.00%	3,848		1.95%	3,678		2.02%
Mine operations in New Caledonia									
VNC	326		1.31%	1,043		1,29%	1,179		1.27%
Mines in operation in Brazil									
Onça Puma	1,259		1.93%	1,466		1.86%	1,975		1.87%

(1) Frood mine (part of the Stobie mine) was set under repair and maintenance at the end of 2012.

(2) The Birchtree mine is under consideration of being set in repair and maintenance.

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

Mine	Type	Production for fiscal year ending December 31		
		2010	2011	2012
		(Thousands of metric tons)		
Sudbury (1)	Underground	22.4	59.7	65.5
Thompson (1)	Underground	29.8	25.0	24.2
Voisey s Bay(2)	Open pit	42.3	68.9	61.9
Sorowako (3)	Open pit	78.4	67.8	69.0
Onça Puma(4)	Open pit		7.0	6.0
New Caledonia (5)	Open pit		5.1	4.5
External (6)		5.9	8.0	5.9
Total(7)		**178.7**	**241.5**	**237.0**

(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, as well as some finished nickel produced by unrelated parties under toll-smelting and toll-refining arrangements.

(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) Primary nickel production adjusted for payable nickel value. Nickel found in NHC and NiO.

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

(7) These figures exclude external third-party material.

2.1.3. Clients and sales

Our nickel customers are broadly distributed on a global basis. In 2012, 51% of our total nickel sales were delivered to customers in Asia, 28% to North America, 19% 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-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 with 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 with 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 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 2012, the principal end-use applications for nickel were:

- Austenitic stainless steel (66% of global nickel consumption);

- Non-ferrous alloys, alloy steels and smelting (18% of global nickel consumption);

- Nickel plating (8% of global nickel consumption); and

- Specialty applications, such as batteries, chemicals and powder metallurgy (8% of global nickel consumption).

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In 2012, 67% 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), Singapore, Kaohsiung (Taiwan), Bangkok (Thailand) and Bridgetown (Barbados).

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 14% of global consumption for primary nickel in 2012. 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 (Norilsk), Jinchuan Nonferrous Metals Corporation (Jinchuan), BHP Billiton, and Xstrata. Together with us, these companies accounted for about 51% of global finished primary nickel production in 2012.

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 41-46% of total nickel used for stainless steels, and primary nickel has accounted for about 54-59%. 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 2012, Chinese production of nickel pig iron and ferro-nickel exceeded 300,000 metric tons, representing 20% of world primary nickel supply.

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.

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Mining complex / Location	Location	Description / History	Mining / Operations	Mining License	Power source	Access / Transportation
Brazil						
Vale/Sossego	Carajás, State of Pará	Two main areas of copper, Sossego and Sequeirinho, and a processing unit 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 into a fine paste), milling, copper fluctuation in concentrate, waste is disposed off, concentrate, discharge filter.	Mining concession for undetermined period.	Power provided by the national power network, acquired from Eletronorte, under long term agreements.	The concentrate is transported by truck to the storage terminal in Parauapebas and, subsequently, is taken by EFC to the Ponta da Madeira maritime terminal, in São Luís, Maranhão. We built an 85 km road connecting Sossego to Parauapebas.
Vale/Salobo	Carajás, State of Pará	Salobo I processing plant is in *ramp-up* to total capacity of 100,000 tpa of 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 follows the same processing and transportation model adopted for Sossego.	Mining concession for undetermined period.	Power provided by the national power network, acquired from regional utility companies or produced directly by Vale.	The concentrate is transported by truck to the storage terminal in Parauapebas and, subsequently, is taken by 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 Sudbury, Ontario	See Basic metals Nickel - Operations	We generate two intermediate copper products: copper in concentrate and copper anodes and cathodes of	See table of our nickel operations.		

electrolytic
copper as by
product of
nickel refining
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		
Chile						
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 remaining part is held by Compañia Minera Werenfried.	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 use hydrometallurgical process.	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.
Zambia						
Lubambe	Zambian Copperbelt	Lubambe copper mine (formerly known as Konkola North), includes an underground mine, plant and related infrastructure. TEAL (our 50/50 joint venture with ARM) holds 80% interest in Lubambe, Zambia. Consolidated Copper Mines Investment Holding PLC Ltd. (20%).	Nominal production capacity of 45,000 metric tons per year of concentrate copper. Production started in October 2012.	Mining concessions end in 2033.	Long term power supply agreement with a Zesco (power supplier owned by Zambia).	Concentrate copper is transported by truck to local smelters.

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2.2.2. Production

The following table provides information about our production of copper.

Mine	Type	2010	2011	2012
		Production during fiscal year ending December 31 (million metric tons)		
Brazil:				
Salobo:	Open pit			13
Sossego	Open pit	117	109	110
Canada:				
Sudbury	Underground	34	101	79
Voisey s Bay	Open pit	33	51	42
Thompson	Underground	1	1	3
External (1)		22	31	29
Chile:				
Tres Valles	Open pit and underground		9	14
Zambia:				
Lubambe (2):	Underground			1
Total		207	**302**	**290**

(1) We process copper at our facilities using third party resources.

(2) Vale s attributable production capacity of 40%

2.2.3. Clients and sales

The copper concentrate from Sossego is sold under mid and long-term contracts executed with copper smelters in South America, Europe and Asia. We have long-term sale agreements to sell the entire first production phase of Salobo copper concentrate to smelters. We have long-term distribution agreements with Xstrata Copper Canada, to sell cathode 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 smelters worldwide; 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 producers in the world are Corporación Nacional del Cobre de Chile (Codelco), Aurubis AG, 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 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, and fewer 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, Freeport-McMoRan, Antofagasta plc, Anglo American, Rio Tinto and Xstrata, operating at a parent company level and through subsidiaries. Our market share in 2012 was approximately 4% of the total copper concentrate market.

The copper anode/blister market is very limited in the copper 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

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incentive to purchase anodes from other smelters. The main competitors in the anode market are Codelco, Anglo American and Xstrata, operating at a parent company level or through its subsidiaries.

2.3. Aluminum

We hold 22% interest in Norsk Hydro ASA (Hydro), one of the main aluminum producers, which we account under the equity method. In the past we engaged in bauxite mining, alumina refining, and alumina *smelting* though subsidiaries in Brazil, interests we transferred to Hydro in February 2011. We continue to maintain a minor interest in MRN and Paragominas, bauxite mining companies located in Brazil, and that we also account for under the equity method. We will transfer the remaining interest in Paragominas to Hydro in two equal installments in 2014 and 2016.

2.4. 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 Pará. We operate a processing facility in Port Colborne, Ontario, which produces PGMs, gold and silver intermediate products. 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 2012, PGM concentrates from our Canadian operations account for 53% 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, we signed an agreement with Silver Wheaton to sell 25% of the gold produced as a byproduct at our copper mine in Salobo, in Brazil, during the mine life, and 70% if the gold produced as by product at our nickel mines in Sudbury, in Canada, in the next 20 years. For further information, see item 3.3 in this Reference Form.

The following table presents information on production of the Company s precious metals.

		Production for fiscal year ending December 31		
Mine (1)	**Type**	**2009**	**2010**	**2011**
			(Thousand troy ounces)	
Sudbury:				
Platinum	Underground	35	174	134
Palladium	Underground	60	248	251
Gold	Underground	42	182	69
Salobo: Gold	Open pit			20
Sossego: Gold	Open pit	102	90	75

(1) Production figures exclude precious metals purchased from unrelated parties and toll-refined materials.

2.5. Cobalt

We recover significant quantities of cobalt, classified as a minor metal, as a by-product of our nickel operations. In 2012, we produced 1,284 metric tons of refined cobalt metal at our Port Colborne refinery and 606 metric tons of cobalt in a cobalt-based intermediate at our Thompson nickel operations in Canada, and our remaining cobalt production consisted of 452 metric tons of cobalt contained in other

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intermediate products (such as nickel concentrates). We expect to increase our production of intermediate cobalt as by-product of our nickel production, at the VNC operations, in New Caledonia, which is currently in ramp-up. 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	Production for fiscal year ending December 31 2010	2011	2012
			(Metric tons)	
Sudbury	Underground	302	593	589
Thompson	Underground	189	158	96
Voisey s Bay	Open pit	524	1,585	1,221
New Caledonia	Open pit		245	385
External sources (1)		51	93	52
Total		**1,066**	**2,675**	**2,343**

(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 (%) Voting	Total	Our partners
		(%)		
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., ammonium nitrate and urea) 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 ten 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, and Araucaria, in Parana. In December 2012, we signed an agreement with Petrobras to sell the operations of Araucária for US$ 234 million, subject to specific conditions, including approval by CADE.

In addition to Vale Fertilizer s phosphate and nitrogen operations, since 2010, we also operate the Bayovar phosphate rock, in Peru, which should achieve a nominal production capacity of 3.9 million Mtpa in 2014 and is operated by means of concessions for undetermined term.

The following table contains information regarding Vale s phosphate rock production.

Mine	Type	Production for fiscal year ending December 31		
		2010	2011	2012
		(million metric tons)		
Bayóvar	Open pit	791	2,544	3,209
Catalão	Open pit	626	947	1,026
Tapira	Open pit	2,068	2,011	2,068
Patos de Minas	Open pit	43	44	44
Araxá	Open pit	1,182	1,231	1,084
Cajati	Open pit	545	582	550
Total		**5,255**	**7,359**	**7,982**

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The following table contains information regarding our production of phosphate and nitrogen nutrients.

Product	Production for fiscal year ending December 31 2010	2011 (million metric tons)	2012
Monoammonium phosphate (MAP)	898	823	1,201
Triple superphosphate (TSP)	788	811	913
Single superphosphate (SSP)	2,239	2,638	2,226
Bicalcium phosphate (DCP)	491	580	511
Ammonia	508	619	475
Urea	511	628	483
Nitric acid	454	468	478
Ammonium Nitrate	447	458	490

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	Production for fiscal year ending December 31 2010	2011 (Thousands of metric tons)	2012	Recovery rate (%)
Taquari-Vassouras	Underground	662	625	549	85.9

3.3. Clients and sales

All sales from the Taquari-Vassouras mine are to the Brazilian market. In 2012, our production represented close to 6.9% 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 2012, our production represented near 34.9% of the total phosphate consumption in Brazil, with imports representing a 49.9% of total supply. In the high concentration segment, Vale supplied over 33% of total consumption in Brazil, with products such as MAP, and TSP. In the low phosphate concentration nutrients segment, our production represented near 38.2% of total consumption in Brazil with SSP and DCP products.

3.4. Competition

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 is highly concentrated, with 10 major producers holding over 94% of the total global production capacity. While potash is a scarce

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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, and Russia) hold 76% of global production, of which around 10% 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 potash, which corresponds to 6.88 Mtpa of KCL (potassium chloride) in 2012, 2.6% less than in 2011 from Canadian, Belarusian, German, Israelis, and Russians, in descending order. In terms of global potash consumption, China, the United States, Brazil, and India represent approximately 59% of global consumption, where Brazil is responsible for 16% 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 17% 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 34% of the total seaborne market. Brazil imports 50% 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 (NH3), 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 12% of ammonia produced in the world is traded. North America is the largest importer, with 35% 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. We conduct our logistics businesses at the parent-company level, through subsidiaries and joint ventures, as set forth in the following table.

Firm	Business	Location	Our participation Voting (%)	Our participation Total (%)	Partners
Vale	Port, maritime and railroad operations (EFVM e EFC).	Brazil			
VLI		Brazil	100.0	100.0	

	Port, maritime and railroad operations and land terminals. Holding specific cargo assets.				
FCA(1)	Railroad operations.	Brazil	99.9	99.9	
FNS (1)	Railroad operations	Brazil	100.0	100.0	
MRS	Railroad operations	Brazil	46.8	47.6	CSN, Usiminas and

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			Our participation		
			Voting	Total	
Firm	Business	Location	(%)		Partners
CPBS	Port, maritime and railroad operations	Brazil	100.0	100.0	Gerdau
PTVI PTV	Port, maritime and railroad operations	Indonesia	59.2	59.2	Sumitomo, public investors
Vale Logística Argentina	Maritime operations.	Argentina	100.0	100.0	
CEAR(2)	Railroad.	Malawi	43.4	43.4	Mozambique, P.E. ports and railroads
CDN(3)	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	
Transbarge Navigación	River system in Paraguai and Paraná rivers (Comboios).	Paraguay	100.0	100.0	
VNC	Port and maritime operations.	New Caledonia	80.5	80.5	Sumic, SPMSC

(1) Vale holds controlling shareholder of FCA and FNS through VLI.

(2) Vale holds control of its participation in CEAR through 85% interest in SDCN.

(3) Vale holds control of its participation in CDN through 85% interest in SDCN.

We created the subsidiary VLI S.A. (VLI) to conduct our general cargo business, including our interest in FCA and FNS, use rights of railroad transportation capacity in our railroads EFVM and EFC and other logistics assets. VLI provides integrated logistics solutions through 10,540 km of railroads (FCA, FNS, EFVM, and EFC), four land terminals with total storage capacity of 220,000 tons, three maritime terminals and port operations. In 2012, VLI transported a total of 28.1 billion tku of general cargo, including 14.8 billion tku of FCA and FNS and 13.3 billion tku under operational agreements with Vale. We are studying the possibility of seeking one or more capital investors to offer external funding for VLI capital needs as counterpart to shareholding interest in the company. Should this operation be concluded, we expect to maintain shareholding control or significant influence on VLI.

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 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. The EFVM railroad has a daily capacity of 342,000 metric tons of iron ore. In 2012, the EFVM railroad carried a total of 74.3 billion ntk of iron ore and other cargo, of which 67.0 billion ntk, or 90%, consisted of cargo transported for customers, including iron ore for Brazilian customers. The EFVM railroad also carried 0.9 million passengers in 2012. On December 31, 2012, we had a fleet of 322 locomotives and 19,111 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 concession, which expires in 2027. EFC extends for 892 kilometers from our mines in Carajás to our Ponta da Madeira maritime terminal complex facilities located near the Itaqui Port. Its main cargo is iron ore,

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principally carried mainly for the Company. The railroad has a daily capacity of 311,707 metric tons of iron ore. In 2012, the EFC railroad carried a total of 103.3 billion ntk of iron ore and other cargo, 3.5 billion ntk of which was cargo for customers, including iron ore for Brazilian customers. EFC also carried 360,367 passengers in 2012. EFC supports the largest capacity train in Latin America, which measures 3.4 kilometers, weighs 41,640 gross metric tons when loaded and has 330 cars. In 2012, EFC had a fleet of 247 locomotives and 14,975 wagons.

- Centro-Atlântica railway (FCA). Our affiliate FCA 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 8,023 kilometers extending into the states of Sergipe, Bahia, Espírito Santo, Minas Gerais, Rio de Janeiro and Goiás and Brasília, the Federal District of Brazil. It connects with our 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 our EFVM railroad and provides access to the Santos Port in the state of São Paulo. In 2012, the FCA railroad transported a total of 12.4 billion ntk of cargo essentially for customers. In 2012, FCA had a fleet of 494 locomotives and 10,535 wagons.

- Norte-Sul railway (FNS). We were granted with a renewable 30-year subconcession for commercial operation of a 720-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 2012, the FNS railroad transported a total of 2.37 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 2012, FNS had a fleet of 38 locomotives and 587 wagons.

The principal items of cargo of the EFVM, EFC, FCA and FNS 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 building materials, 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).

- 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 2012, the MRS railroad carried a total of 155.42 million metric tons of cargo, including 68.76 million metric tons of iron ore and other cargo from Vale.

- *Argentina*

On August 24, 2010, through our subsidiary, Potasio Rio Colorado S.A., we entered into an agreement with Ferrosur Roca, S.A. for a partial concession, subject to government authorization, of an administrative concession of a 756 km railroad. This concession is important to support the potash Project in Rio Colorado. In March 2013, we suspended the Rio Colorado project in Argentina, as circumstances and current conditions of the project would not offer results aligned with our commitment with discipline in capital allocation and value creation. We will honor our commitments related to concessions and we will analyze the alternatives to improve project perspectives and later evaluate the possibility of resuming.

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- *Africa*

We are developing the Nacala logistic corridor, to connect Moatize to the Nacala-à-Velha maritime terminal, located in Nacala, Mozambique. In July 2012, our subsidiary Corredor Logístico Integrado de Nacala (CLIN) entered into two concession agreements with the Government of Mozambique regarding a greenfield railroad and a new port for coal, to be part of the Nacala Corridor. In December 2011, our subsidiary Vale Logistics Limited (VLL) signed a concession agreement with the government of the Republic of Malawi for a 137 kilometer railroad to be built from Chikawa to Nkaya in Malawi. The concessions in Malawi and Mozambique will allow the Moatize expansion and facilitate the creation of a world-class logistics infrastructure supporting our operations in Central and East Africa. We will invest in the expanding the capacity of the Nacala Corridor through the rehabilitation of existing railroad tracks in Mozambique and in Malawi, under control of the Corredor de Desenvolvimento do Norte S.A. (CDN) and the Central East African Railway Company Limited (CEAR), both subsidiaries of the Sociedade de Desenvolvimento Corredor Nacala, SA (SCDN), which holds 51% interest in each one. We will also invest in the construction of necessary tracks 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 allow the delivery of our iron ore and pellets to bulk carrier vessels serving the seaborne market. We also use our port and terminals to handle customers cargo. In 2012, 10% of the cargo handled by our port and terminals represented cargo handled for customers.

- Tubarão Port. The Tubarão Port, which covers an area of 18 square kilometers, is located near the Vitória Port, state of Espírito Santo, and contains three maritime terminals we operate: (i) an Iron Ore Maritime Terminal, (ii) the Praia Mole Terminal, and (iii) the Terminal de Produtos Diversos. 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 400,000 DWT at a time, limited at 20 meters draft plus tide. In Pier I there are two ship loaders, which can load up to a combined total of 26,700 metric tons per hour. In Pier II there are two ship loaders that work alternately and can each load up to 16,000 metric tons per hour. In 2012, 102.6 million metric tons of iron ore and pellets were shipped through the terminal. The iron ore maritime terminal has a storage capacity of 3.4 million metric tons. Praia Mole Terminal is principally a coal terminal and handled 9.2 million metric tons in 2012. See Additional Information - Legal actions. Terminal de Produtos Diversos handled 6.8 million metric tons of grains and fertilizers in 2012.

- 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 II 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 shiploaders, can accommodate vessels of up to 220,000 DWT on the south berth and 180,000 DWT on the north berth and has a maximum loading rate of 8,000 metric tons per hour in each shiploader. Pier IV can accommodate vessels displacing up to 420,000 DWT and has a maximum loading rate of 16,000 tons per hour. Cargo shipped through our Ponta da Madeira maritime terminal consists principally of our own iron ore production. Other cargo includes manganese ore produced by Vale and pig iron and soybeans for unrelated parties. In 2012, 105.35 million metric tons of iron were handled through the terminal. The Ponta da Madeira maritime terminal has a storage capacity of 6.2 million metric tons, to be expanded to 7.4 million metric tons.

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• 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 terminal has a pier that allows the loading of ships up to 18 meters of draft and up to 200,000 DWT. In 2012, the terminal loaded approximately 22.9 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 2012, the terminal loaded 39.7 million metric tons of iron ore.

• Inácio Barbosa maritime terminal (TMIB). We operate the Inácio Barbosa maritime terminal, located in the Brazilian state of Sergipe. The terminal is owned by Petrobras. Vale and Petrobras are parties into an agreement that allows Vale to operate this terminal until December 2013. Currently, the parties have been negotiating extension of this agreement. In 2012, 1.1 million metric tons of oil coke, fertilizers, and agricultural products were shipped through TMIB.

• Santos Maritime Terminal (TUF). We operate a maritime terminal in Santos, state of Sao Paulo. The terminal has a pier equipped to receive ships of up to 67,000 DWT. In 2012, the terminal moved 2.6 million metric tons of ammonia and bulk solids, in line with 2011.

• *Argentina*

Vale Logistica Argentina S.A. (Vale Logistica Argentina) operates a terminal at the San Nicolas port located in the province of Buenos Aires, Argentina, where it has been authorized to store 20,000 square meters until October 2016 and has executed an agreement with unrelated parties to store additional 27,000 square meters. We handled 1.7 million metric tons of iron ore and manganese through this port in 2012, from Corumbá, Brazil, through the Paraná and Paraguay rivers to be transported to 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.

• *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 Harapan Tanjung Mangkasa 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, Province Sud, 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 (GPL, BPF,

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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 2012, we had a fleet of 25 vessels, of which 11 Valemax vessels, with capacity of 400,000 DWT, and 14 capesize vessels and up, with capacities varying between 150,000 to 250,000 DWT. We are expecting the delivery of additional eight Valemax vessels from Chinese and Korean providers. To support our strategy to deliver iron ore, Vale holds and operates a floating transfer station in the Subic Bay, the Philippines, that transfers iron ore from VLOCs to smaller vessels that deliver the cargo to its destination. We expect that this service improve our ability to offer our iron ore products to the Asian market at competitive prices and to increase our market share in the Chinese market and the global seaborne market. In 2012, we carried 121.5 million metric tons of iron ore and pellets on CFR basis.

In August 2012, we sold 10 *large ore carriers* to Polaris for US$600 million. We had acquired these vessels in 2009 and 2010 and we converted them from oil tanks to mining vessels, each with approximate capacity of 300,000 DWT, in order to have a fleet of vessels to be used to carry iron ore to our customers. The vessels were licensed for freight by Vale under long term agreements, preserving Vale s capacity of maritime transportation of iron ore with no operating or property risks.

On the Paraná and Paraguay fluvial system, we transport iron ore and manganese through our subsidiary, Transbarge Navigacion, which transported by rivers 1.0 million tons in 2012 and our subsidiary, Vale Logistica Argentina, which loaded 1.0 million tons of ore though the port of San Nicolas in seaborne vessels in 2012. In 2010, we also purchased two new convoys (two tugboats and 32 barges) which will start operating in 2013.

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

We have developed our energy assets based on the current and projected energy needs of our 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 electricity prices. In 2012 our total installed energy capacity in Brazil was 1.1 GW. We use the electricity produced by these plants for our internal consumption needs. We currently have nine hydroelectric power 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.

In June 2011, we acquired 9.0% of the stocks in Norte Energia S.A. (NESA), a company which sole purpose is the deployment and operation of the Belo Monte Hydroelectric Plant, in Pará. Our interest in NESA entitles us to purchase 9% of the power generated by the plant.

- *Canada*

In 2012, our hydroelectric power plants in Sudbury generated 11% of the electricity requirements of our Sudbury operations. The power plants consist of five separate generation stations with an installed

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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. Over the course of 2012, the average requirements for power was 196 MW to all surface plants and mines in the Sudbury area.

In 2012, diesel generation provided 100% of the electric requirements of our Voisey s Bay operations. We have six diesel generators on-site, of which normally 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 on the Larona River: (i) the Larona 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. The Karebbe plant helps reducing the costs by replacing the diesel used in power generation for hydroelectric power, reducing CO2 emissions by replacing non-renewable power generation, and helping to increase current nickel production capacity in Indonesia.

5. Other Investments

Vale owns 50% 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 on the third quarter in 2010, and produced 3.4 Mt in 2012. 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.

We are also engaged in three other steel projects in Brazil, Companhia Siderúrgica do Pecém (CSP), approved by our Board of Directors, as well as Aço Laminados do Pará (Alpa) and Companhia Siderúrgica Ubu (CSU), both in the initial development stages.

We hold 31.3% of the capital in Log-In, that operates intermodal logistic services. Log-In offers port services and maritime container transportation and container storage. The company operates with own vessels or leased vessels for merchants navigation, a container terminal (Terminal Vila Velha TVV) and multimode terminals. In 2012, the merchant navigation system of Log-In transported 198,565 twenty-two feet equivalent units (teus) and TVV moved 267,510 teus.

We also have an onshore and offshore hydrocarbon exploration portfolio in Brazil, currently under review.

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:

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(i) supplier classification 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;

(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 Ethical Conduct, document signed by all the companies that supply to Vale.

All the companies, when invited to supply products / services to Vale, are subject to a search in the list of companies disclosed at the website of the Ministry of Labor and Employment (MTE) that includes companies and individuals fined for engagement in children s labor, degradation labor or similar to slavery 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

• CONAMA Resolution (National Council for the Environment) 01/86.

• Federal Law 10165/00

• IBAMA (Brazilian Institute of Renewable Natural Resources) Normative Instructions 96/06 and 97/06.

b) Pesticides

• Federal Law 7802/99

• Federal Decree 4047/02

• Law 6360/76 - ANVISA - National Agency for Sanitary Surveillance

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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 2012 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% of cost of goods sold (COGS) in 2012, (ii) fuel and gas, which contributed 8% 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 18% of COGS in 2012.

The main categories of equipment purchased by the supply department were handling, infrastructure, transportation and locomotive equipment. Our largest suppliers of these types of equipment in 2012 were METSO, CATERPILLAR/SOTREQ, GE TRANSPORTATION, accounting jointly for 4% of total purchases of the company.

Fuel consumption is quite intense, especially in operations and transport of iron ore, located in Brazil. Our main supplier of this consumable item is Petrobras Distribuidora, which accounted for approximately 86% of our purchase of fuels in 2012. In 2012, we used 68% 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 Tractebel.

Our 10 largest input, equipment and service providers in 2012 represented 15% of our total purchases.

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 2012, 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

In order to conduct mining activities, we generally require some governmental permits, which differ in form depending on the jurisdiction but may include concessions, licenses, prospecting applications, permits, releases or franchises (all of which we 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

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jurisdictions, often in important ways. For example in many jurisdictions, including Brazil, mineral resources belong to the state and may only be extracted under concession. In other jurisdictions, including Canada, a substantial part of our mining operations is conducted pursuant to mining rights or leases, often from government agencies.

The table below summarizes our principal mining concessions and other similar rights. In addition to the concessions described below, we have exploration licenses covering 6.07 million hectares in Brazil (out of which, 4.39 million are already under application) and 12.4 million hectares in other countries.

Location	**Concession or other right**	**Approximate area covered (in thousand hectares)**	**Expiration date**
Brazil			
	Exploration Concession	660.715	Undetermined
Canada			
	Exploration Concession (name varies according to the province)	275.764	2013-2033
Indonesia			
	Employment Agreement (*Contract of Work*)(1)	190.510	2025
Australia			
	Exploration Concession (*Mining concessions*)	19.200	2015-2041
New Caledonia			
	Exploration Concession (*Mining concessions*)	21.269	2015-2051
Peru			
	Exploration Concession (*Concesión de Exploración*)(2)	153.968	Undetermined
Argentina			
	Exploration Concession (*Manifestación de Descubrimiento*)	167.073	Undetermined
Chile			
	Exploration Concession (*Concesión de Explotación*)	64.697	Undetermined
Mozambique			
	Exploration Concession (Mining Concession) (3)	23.780	2032
Guinea			
	Exploration Concession (Mining Concession)	102.400	2035

(1) Work Contract of our mines in Indonesia expire in 2025. Meanwhile, according to the new Mining Law, we will be entitled to request, at least, a 10 year extension.

(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. Another license granted by local authorities in Moatize cover 961 additional 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.

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Regulation of mining activities

- In Brazil, the federal government plans to propose changes to the Mining Code, which, if adopted, may have important implications on Brazil s mining operations or may require additional investments.

- In Indonesia, a mining law became effective 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 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, the term and the amendment means of the agreement and financial obligations (royalties and fees) 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 December 2013. In 2012, the government of Indonesia also established a new tax regime for exporting activities related to gross minerals and approved a new regulation for the 2009 law that creates a requirement of disinvestment for foreign companies holding IUPs licenses. Under this regulation, foreign companies holding IUPs should gradually reduce their interest in mining operations, to a maximum limit of 49% in the tenth production year. The government of Indonesia also approved a regulation that forbids exporting gross mineral to those holding IUPs and the requirement of domestic processing and the construction of refineries by 2014. PTVI currently holds two IUP licenses subject to these requirements and regulations and is evaluating the impact on its operations.

- In New Caledonia, a mining law was passed in March 2009 which states that for new mining projects, formal authorization is required, rather than a simple declaration. Our license application (which replaces the 2005 declaration) was submitted in April 2012 and the entities might take up to three years to issue the authorization. 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.

- In Guinea, a new Mining Code adopted in 2011 imposes on all the iron ore mining projects a requirement that the government holds 15%, for free, and allows the government to acquire an additional 20% interest. The new mining code also introduced stricter requirements for all mining companies with operations in Guinea, including requirements related to mining tax, customs, employment requirements, qualification, training, transparency, and anticorruption actions. Additionally, the Government of Guinea set a contractual review procedure for purposes of adapting current mining contracts to the new mining code. According to regulations adopted by the government, the contractual review procedure may result in cancellation or renegotiation of mining rights, depending on the evaluation and recommendations by the technical committee responsible for the contractual review procedure. The mining project of our subsidiary in Guinea is currently under review by the technical committee, that started a comprehensive investigation on the conditions under which mining rights of our subsidiary in Guinea were granted and have been exercised prior and after our investment in the project. Until the review procedure is concluded and the legal uncertainty related to the application of the new mining code to current projects is clarified, there are no conditions to determine how and to what extent our subsidiary in Guinea will be affected. Our subsidiary decided recently to suspend operations in Guinea until regulation uncertainties that affect the project are solved.

- In Mozambique, the government concluded a new proposal for the mining code in December 2012, which should be subject to Parliament approval. Changes expected for the new code 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 new regulation for reoccupations, issued in June 2012, contains stricter requirements that may cause increase in costs and delays to deploy our projects.

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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 additional 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 development 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, natural caverns, watersheds and other features of the ecosystem; water use, climate change and decommissioning and reclamation.

Environmental legislation is becoming stricter worldwide, which could lead to greater costs for environmental compliance. In particular, there is an 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 significant capital investments to ensure compliance with regulations on gas emissions that include, without limitation, sulfur dioxide, particle s and metals. In Australia, starting in June 2013, we expect to start receiving permits according to a recently introduced carbon pricing scheme that initially will operate as a carbon tax, with fixed (but increasing) price.

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. Brazilian states of Minas Gerais and Pará introduced a mining production tax (Taxa de Fiscalização de Recursos Minerais [Mining Resources Supervision Tax] TFRM) in December 2011. In 2012, these states deployed changes to the legislation which reduced amounts payable, according to the TFRM (i) from R$6.906 to R$2.302 per metric ton of mineral produced in the State of Pará, and (ii) from R$2.3291 to R$0.9316 per metric ton transferred or sold in the State of Minas Gerais. Vale paid the TRFM due in 2012. The Brazilian industry Association (Confederação Nacional da Indústria [National Industry Association] CNI) currently argues the constitutionality of the TRFM imposed by Minas Gerais and Pará before the Federal Supreme Court. Should the claim be accepted, we believe the TRFM might be dismissed. In December 2012, a similar TRFM was created by the State of Mato Grosso do Sul, and we are currently evaluating the possibility to make a claim against it.

• 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

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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.

- 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 2012, the payment of royalties corresponded to 0.54% of the revenue from the sale of matte nickel, while the annual average of royalties paid for the 2009-2012 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 mlbs in 2010.

- 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 amount (net of freight, shipping 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% for higher amounts. In the state of New South Wales, the royalty applicable to coal is the percentage on the production s total revenue (which is net of specific expenses and fees) minus allowed 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 (less the mineral resource rent tax (MRRT)) for a party holding a mineral lease that pays an MRRT installment during the relevant period. In 2012, the Australian government introduced a mineral resource rent tax, MRRT, to be applied on the profits generated from the exploration of coal and iron ore resources in Australia. The tax will apply at an effective fee of 22.5% of the taxable profits and will be deductible for corporate income tax purposes. The difference between the MRRT and royalties paid to each state government is that royalties are calculated based on the volume and value of resources, whereas MRRT is calculated on profits. However, companies will receive a credit for state royalties based on where MRRT is to be paid. For the year ending on December 31, 2012, Vale Australia did not have to pay any MRRT.

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 signed with the federal government and our concession contracts are subject to the regulation and supervision by 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. We also own the subconcession for commercial operation of a 720-kilometer segment of the FNS railroad, in Brazil, that expires in 2037. Prices we ask may be negotiated directly with users of such services, subject to fee limits approved by ANTT for each of the concessionaires each of different products that are transported. ANTT regulations also require concessionaires to operate under shared rights (mutual traffic and right of passage) with other concessionaires, make investments in the railroads, meet specific productivity requirements, and other obligations. In January 2012, ANTT

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altered the fee regulation for railroad concessionaires and reduced the limit. These changes did not significantly affect our agreements.

- Regulation of Brazilian ports. Port operations in Brazil are subject to the regulation and supervision of the National Agency of Aquatic Transportation - ANTAQ, the national agency responsible for maritime transportation, and SEP, the Port Special Secretary. In December 2012, a provisional order approved by the Brazilian government established new rules for new projects and existing terminals. This measure removed certain restrictions on unrelated party cargo movement and created the possibility of having ANTAQ determine access to unrelated parties to private terminals, contrary to the previous regime. Although the measure became immediately in effect, it still needs to be confirmed by the Brazilian Congress, that may reject it, amend it, or approve it.

- Regulation of chemical products. Some of our products are subject to regulations applicable to the marketing and distribution of chemicals and other substances. 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 will be required to register new 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 restrictions to commercialize its products in Europe. We have complied with registration requirements for the substances imported into or manufactured in the EU in 2012 and we continue to take measures to manage our exposure to the authorization process.

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 of effective monitoring, conservation, environmental protection and rehabilitation, aimed at ensuring the maintenance and recovery of ecosystems in which it operates. Our system is based on ISO 14001 (*International Organization for Standardization*) guidelines, to which it adds additional features that make up our standard of environmental quality. Aiming to assess the management and ensure the development of performance, we submit various operations, periodically, to internal and external audits.

Listed below are our units with ISO 14001:

- Iron ore and pellets (all iron ore mines and the Tubarão and Fábrica pelletizing plants);

- Manganese and ferroalloys (Azul, Conselheiro Lafaiete, and Morro da Mina);

- Nickel (Vale Europe Limited, Taiwan Nickel Refining Corporation, Vale Japan Limited, Korea Nickel Co. and Vale Nickel Dalian Co. Limited (VNDC));

- Port of Tubarão; and

- Copper (Sossego mine).

In many cases, we operate with higher levels of environmental requirements than is legally required. To run the Environmental Management System, we disbursed US$ 7 million in the last three years.

Our systems and control equipment, such as the storage and spraying of water on the roads, besides the use of chemical powder inhibitors or installation of filters and electrostatic precipitators in facilities, are complemented by comprehensive monitoring systems and control software.

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As a mining company, the control of air emissions is one of our main goals. Besides complying with all legal requirements, we continuously evaluate the air quality of our facilities and their effects on surrounding communities, and make the necessary investments to improve air quality.

Regarding improvement of water quality, we make every effort to treat and control pollutants discharged into the sea, rivers and other water bodies, and run a comprehensive water recycling program for water used in our operations. We are constantly researching new processes and technologies to improve the use, recycling and treatment of water. Through our comprehensive system of waste treatment and removal of debris, we seek greater control of generation and disposal of residues in order to create opportunities for reuse, recycling and reducing waste.

Our guidelines for decommissioning mines describe a complete set of guidelines, including practical and technical procedures to be followed during closure of the mines. The handbook outlines the procedures for monitoring and recovery of degraded areas, the main steps and sequence to be obeyed during the closure and other liabilities that may eventually arise out of the closure of the mine. The manual also provides standardized basic criteria, based on the guidelines of the CVM and the SEC (FAS 143), for cost evaluation, budgeting for the present, future decommissioning and restoration.

The waters of the mine, waste dams and waste rock deposits are classified according to a risk matrix involving all the parameters related to construction, operation and safety control. A complete audit program has been established which can evaluate the stability of these structures and provide elements for the preparation, if necessary, of plans for corrective or preventive action.

Our environmental program also includes restoration projects aimed at (i) protecting the soil against erosion, (ii) building impact reducers between their activities and the communities in surrounding areas and (iii) maintaining biodiversity through recovery of the ecosystem. We have partnerships with universities and governmental research agencies to conduct extensive research on methods of protecting the ecosystem.

We conduct extensive studies on fauna and flora, to minimize the environmental risks associated with investments in potentially sensitive areas. We take part in the conservation of Brazilian ecosystems, leaving some land untouched and protecting some private land. We also participate in the preservation of federal lands located in areas of environmental conservation, called protected areas and develop and support research in the field of biodiversity. Over the past 25 years we have 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.

Furthermore, we believe our many patents are fundamental in achieving the goals of research and technological development and our major brand Vale is of great importance for the development of their activities.

7.6 Relevant revenue from abroad

Fiscal year December 31, 2012

Revenue from customers attributed to:	Revenue (R$ thousands)	% In total income of the Company
China	34,684,142	37.1%
Japan	9,609,267	10.3%
United States	2,592,667	2.8%
Germany	5,716,773	6.1%
Canada	1,973,318	2.1%
South Korea	4,103,399	4.4%
Taiwan	1,754,830	1.9%
England	1,954,205	2.1%
France	1,300,194	1.4%
Belgium	503,511	0.5%
Other countries	11,512,020	12.3%
Total income from abroad	**75,704,326**	**81.0%**
Brazil	17,805,150	19.0%
Total income	**93,509,476**	**100.0%**

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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 Report

The company publishes a sustainability report available at http://www.vale.com>Sobre a Vale>Relatório de Sustentabilidade.

7.9 Other information the issuer deems relevant

No further relevant information about this item 7.

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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 of 32.4% of the capital stock. Valepar is controlled by: (i) Litel Participações S.A., a holding company (50.38%); (ii) Bradespar S.A., a holding company (17.17%); (iii) Mitsui & Co., Ltd, a trading company (15.15%); (iv) BNDES Participações S.A., a holding company (9.81%); and (v) Eletron S.A., a holding company (0.02%).

Litel Participações S.A. is a holding company controlled by BB Carteira Ativa (79.00%), 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 20.10% of the total share capital. In accordance with the terms of the Statute of the Fundação Bradesco, all Directors of Bradesco, members of the Board of Directors and directors of departments, as well as all directors and leaders of Cidade de Deus Companhia Comercial de Participações S.A., act as members of the Fundação Bradesco board of trustees, known as the Mesa Regedora.

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 is a holding company 100% owned by Banco Nacional de Desenvolvimento Econômico e Social (BNDES). BNDES is a federal 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. (99.97%), a holding company controlled by Belapart S.A. (38.47%), Opportunity Holding FIP (23.06%), and Valetron S.A. (38.47%). Belapart S.A. and Valetron S.A. [sic] are corporate holding companies controlled by Ms. Verônica Valente Dantas, who owns 51% 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

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):

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Aceros Del Orinoco

Aços Laminados do Pará S.A.

Aegis Indemnity Ltd.

Anyang Yu Vale Yongtong Pellet Co., Ltd.

Araucária Nitrogenados S.A.

Associação Brasileira dos Investidores em Auto Produção de Energia - ABIAPE

Associação Instituto Tecnologico 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.

Baldertonn Trading Corporate

Baovale Mineração S.A.

Belcoal Pty Ltd

Belvedere Australia (BP) PTY Ltd

Belvedere Coal Management Pty Ltd. (ACN 112 868 461)

Belvedere JV (Unincorporate)

Biopalma da AmazÕnia 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 Limited - (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 Santo Inácio V Ltda.

Central Eólica Santo Inácio VI Ltda.

Central Eólica São Raimundo Ltda.

Charlotte, Ltd

Charlotte Unit Trust

CI Vale Colombia SAS

Corredor Logístico Integrado de Nacala S.A. - CLN

CMM Overseas Limited

Compagnie Minière Trois Rivières - CMTR

Companhia Coreano-Brasileira de Pelotização - KOBRASCO

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 Portuaria Baia de Sepetiba - CPBS

Companhia Siderúrgica Ubu

Companhia Usina Tecpar

Compañia Minera Andino-Brasileira Ltda - CMAB

Compañia 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

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Consórcio Candonga

Consórcio Capim Branco Energia - CCBE

Consórcio da Hidrelétrica de Aimorés

Consórcio da Usina Hidrelétrica de Igarapava

Consórcio de Rebocadores da Baia 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-80

Consórcio SF-T-81

Consórcio SF-T-82

Consórcio SF-T-83

Consórcio SF-T-93

Consórcio Tup Mearim - Graneis Sólidos

Copperbelt (B) Inc.

Corredor do Desenvolvimento do Norte SRL - CDN

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.

Exide Group Incorporated

Ferrovia Centro-Atlântica S.A. - FCA

Ferrovia 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 Brasileira para o Desenvolvimento Sustentável

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.

IFC - Indústria de Fosfatados Catarinense Ltda

Infostrata S.A

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)

Kaolin Overseas Limited

Kaserge Serviços Gerais Ltda. - KSG

Kobrasco International Trading Co. Ltd. - KOBIN

Korea Nickel Corporation

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Liquifer Siderurgia Ltda.

LOG-IN Logística intermodal S.A.

LOG-IN Mercosur

Maitland Main Collieries Pty Ltd. - (ACN 000 021 652)

MBR Overseas Ltd.

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

Mineração Zarzuela Ltda

Minerações BR Holding GmbH

Minerações Brasileiras Reunidas S.A. - MBR

Minérios Metalúrgicos do Nordeste S.A. - MMN

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

Mystery Lake Nickel Mines Limited

Nebo Central Coal Pty Ltd - (ACN 079 942 377)

NORPEL - Pelotização do Norte S.A

Norsk Hidro ASA

Norte Energia S.A. (NESA)

NSW Coal Resources Pty Ltd - (ACN 077 459 735)

Pineland Timber Company Limited

Ponta Ubu Agropecuária Ltda

Porto Norte S.A.

Potássio Rio Colorado S.A. - PRC

Prairie Potash Mines Limited

Prony Nickel S.A.S.

PT Vale Eksplorasi Indonesia

PT Vale Indonesia Tbk

Qld Coal Holdings Pty Ltd - (ACN 081 724 129)

Railvest Investments Inc

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 Contractual Minera Tres Valles

Sociedade de Mineração Constelação de Apolo S.A.

Société Industrielle et Com. Brasilo-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.

Terminal de Vila Velha S.A. - TVV

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Tethys Mining LLC

The Central East African Railways Company Limited

ThyssenKrupp Companhia Siderúrgica do Atlântico

ThyssenKrupp Slab International B.V

Tiebaghi Nickel S.A.S.

Transbarge Navegacion S.A. - TBN

Transporte Ferroviario Concesionaria S.A. - TFC

Transporte Ferroviário Inversora Argentina S.A. - TFI

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

Vale Americas Inc

Vale Ásia 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 Canadá Limited

Vale Capital II

Vale China Holdings (Barbados) Ltd.

Vale Coal Exploration Pty Ltd - (ACN 108 568 725)

Vale Comercio International SE - VCI

Vale Cubatão Fertilizantes Ltda

Vale Emirates Limited

Vale Energia Limpa S.A. - VEL

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 Exploració 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 Moçambique Limitada

Vale Fertilizantes S.A.

Vale Fertilizer Austrália PtY Ltd

Vale Fertilizer International Holding B.V

Vale Fertilizer Netherlands B.V

Vale Florestar - Fundo de Deenvolvimento e Participações (Fundo)

Vale Florestar S.A.

Vale Guinée S.A

Vale Holdings (Barbados) Limited

Vale Holdings AG

Vale Inco Asia Ltd.

Vale Inco Atlantic Sales Limited

Vale Inco Australia Ltd. Partnership

Vale Inco Europe Holdings

Vale Inco Management Advisory Services (Shangai) Co., Ltd.

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Vale Inco Pacific Ltd.

Vale Inco Resources (Australia) Pty Ltd.

Vale India Private Limited

Vale International Holdings GmbH

Vale International S.A

Vale Investments Ltd.

Vale Japan Ltd.

Vale Kazakhstan Limited Liability Partnership

Vale Limited

Vale Logística Africa Ltd

Vale Logística da Argentina S.A - VLA

Vale Logística do Uruguay S.A

Vale Logístics Limited

Vale Malaysia Minerals Sdn. Bhd

Vale Manganês S.A

Vale Manganese France

Vale Mauritius Ltd.

Vale Mina do Azul S.A

Vale Minerals China Co. Ltd

Vale Moçambique Ltda.

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

Vale Power Moatize Limited

Vale Projectos e Desenvolvimento Moçambique Limitada

Vale Proyectos Minerales S.A

Vale Republic Democratique Du Congo - 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

Vale South Africa (Proprietary) Ltd.

Vale Switzerlnd AS

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

VEL (ME) Ltd

VEL Holdings GmbH

VLI Multimodal S.A.

VLI Operações de Terminais S.A. - VOT

VLI Operações Portuárias S.A. - VOP

VLI S.A.

YPF S.A. - Potasio Rio Colorado S.A., Unión Trasitoria de emrpesas - Segmento 5 Loma La Lata - Sierra Barrosa

Zhuhai YPM Pellet Co. Ltd.

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d. participation in the Company by companies in the group

Additionally to companies indicated in item 15.1 in this Reference Form, none of the holding s corporations have direct and indirect participation in the Company s control.

As well as participation in Vale by the direct controller Valepar, described in item a above, the following companies hold direct shares in the Company on December 31, 2012:

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%

e. companies under common control

Vale is an equity company controlled by Valepar, whose indirect and indirect 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:

See item 6.5 of this Reference Form.

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.

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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, 2012 by category and geographic location:

				In thousands of R$					
2012	**Brazil**	**Europe**	**North America**	**Australia**	**Africa**	**Asia**	**New Caledonia**	**Others**	**Total**
Buildings	7,522,280	158,912	753,508		2,213	1,902,223	2,346,851	70,430	12,756,417
Facilities	12,903,043	67,318	1,701,534		2,200	9,235	5,422,884	707,389	20,813,602
Equipment	9,464,002	173,287	1,014,690		358,709	2,136,417	146,626	2,206,165	15,499,896
IT	211,889	6,418	75,062		4,355	11,414	30,646	344,574	684,358
Railroads	5,137,640		47,083			1,420		0	5,186,143
Mining	10,176,263	6,406	16,087,058	1,478,344	2,598,649	2,083,569	1,354,664	850,564	34,635,517
Others	6,290,528	527,940	3,185,858	860,891	998,520	2,546,572	552,154	391,574	15,354,038
Ongoing	32,438,461	387,394	7,111,552		3,513,083	4,044,612	675,917	753,872	48,924,892
Total	**84,144,105**	**1,327,675**	**29,976,344**	**2,339,235**	**7,477,730**	**12,735,463**	**10,529,742**	**5,324,568**	**153,854,863**

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9.1 Relevant non-current assets / 9.1.a Fixed assets

Description of the fixed asset	Location Country	Location State	Location Municipality	Type of Property
Iron ore mine - Carajás	Brazil	Pará	Various	
Iron ore mines various Southeast system	Brazil	Various	Various	
Iron ore mines various Southern system	Brazil	Minas Gerais	Various	
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
Pelletizing plant - Samarco	Brazil	Espírito Santo	Anchieta	Own
Pelletizing plant - Zhuhai YPM	China		Zhuhai	Own
Pelletizing plant - Anyang	China		Anyang	Own
Pelletizing plant - Hispanobras	Brazil	Espírito Santo	Vitória	Lease
Pelletizing plant - Itabrasco	Brazil	Espírito Santo	Vitória	Lease
Pelletizing plant - Kobrasco	Brazil	Espírito Santo	Vitória	Lease
Pelletizing plant - Nibrasco	Brazil	Espírito Santo	Vitória	Lease
Integrated nickel production system: mine, processing plant, smelter	Canada		Sudbury	
Integrated nickel production system: mine, processing plant, smelter	Canada		Thompson	
Nickel mine and processing plant	Canada		Voisey s Bay	
Carajás Railroad	Brazil	Various	Various	
Vitória a Minas Railroad	Brazil	Various	Various	
Centro-Atlântica Railroad	Brazil	Various	Various	
North-South Railroad	Brazil	Various	Various	
MRS Logistics	Brazil	Various	Various	
Manganese Mines	Brazil	Various	Various	
Paragominas Mine - bauxite	Brazil	Pará	Various	
Thermal and metallurgical coalmine	Australia		Hunter Valley	
Thermal and metallurgical coalmine	Australia		Bowen Basin	
Iron ore mines various Central West system	Brazil	Mato Grosso do Sul	Various	
Pelletizing plant - Oman	Oman			Own
Platinum Refinery	England		Acton	Own
Nickel mine and processing plant	New Caledonia		Noumea	

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PTI nickel mine	Indonesia		Sorowako	
Nickel refinery	Wales		Clydach	Own
Sossego mine	Brazil	Pará	Various	
Salobo mine	Brazil	Pará	Various	
Onça Puma mine	Brazil	Pará	Various	
Thermal and metallurgical coalmine - Moatize	Mozambique		Various	
Phosphorite mine - Bayóvar	Peru		Piura	
Phosphorite mine and processing plant	Brazil	Various	Various	
Port Colborne smelter of precious metals	Canada		Ontario	Own
Ferroalloys plant	Brazil	Various	Various	Own
Nickel processing plant	Taiwan		Kaoshing	Own
Cathode copper processing plant Tres Valles	Chile		Salamanca	Own

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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	275,764 hectares	2013-2033	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.
Concessions	Mining concessions in Australia	19,200 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	153,968 hectacers	Undetermined	Non-payment of fees for two consecutive years	Interruption and/or cancellation of mining

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				and non-payment of fines. Breach of legislation.	operations in Peru.
Concessions	Mining concessions (Discovery Statement and mine) in Argentina	167,073 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.
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	Mining concessions in Guinea (Concession Minière)	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	Interruption and/or cancellation of mining operations in Guinea.

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				requirements and/or mineral legislation.	
Concessions	Rail concession for passenger and freight transport on the Carajás Railroad	892 km (in the states of MG, SP, ES, RJ, GO, BA, SE, and the 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 (RFF), granted to the Centro-Atlântica Railroad	8,023 km [sic] in the states of Maranhão and Pará	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.
Concessions	Concession for the South-East network belonging to the Federal Railroad Network (RFF), granted to MRS Logística	1,643 km in the states of Minas Gerais, São Paulo, and Rio de Janeiro	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, which make up the Southern System of Vale.

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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 concessionaire.	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.
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).

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Concessions	Concession for use of public property for electric energy generation Aimorés Dam	Cities in Minas Gerais [sic]	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.
Concessions	Concession for use of public property for electric energy generation Estreito Dam	Cities in the states of 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. Note: Estreito and Carolina (MA) and Aguiarnópolis, Darcinópolis, Goiatins, Babaçulândia, Barra do Ouro, Palmeirante, Palmeiras do Tocantins, Tocantinópolis, Tupiratins, Itapiratins, and Filadélfia (TO).
Concessions	Concession for use of public property for electric energy generation Santa Isabel Dam	Cities in the states of Tocantins and Pará	2037* is not under commercial operation yet. Consortium claims that the term should start upon issuance of the LP, which has not	(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. Note: Ananás, Araguanã, Riachinho, and Xambioá (TO) and Palestina do Pará, Piçarra, and São Geraldo do Araguaia (PA)

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			been issued by IBAMA yet, under analysis by the Ministry of Mines and Energy.		
Concessions	Concession in a shared arrangement for electric energy generation Machadinho Dam	Cities in the states of 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. Note: Anita Garibaldi, Celso Ramos, Campos Novos, Zortéa, Capinzal, and Piratuba (RS) and Maximiliano de Almeida, Machadinho, Barracão, and Pinhal da Serra (SC).
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.
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	98 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	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

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	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.	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.

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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	10.335.963/0001-08		Controlled company	Brazil	RJ	Rio de Janeiro	100.000000
[redacted]							

Business Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)		Date		Value
[redacted]							
12/31/2012	20.000000	0.000000	0.00	**Market value**	**(12/31/2012)**		
12/31/2011	213.000000	0.000000	0.00				
12/31/2010	740.000000	0.000000	0.00	**Book value**	**(12/31/2012)**	R$	319,000,000.00

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 (%)
VBG Vale BSG Limited	00.000.000/0000-00		Controlled	Virgin Islands (England)			51.000000
[redacted]							

Business Year	Book value variation (%)	Market value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	15.000000	0.000000	0.00	**Market value**	**(12/31/2012)**		0.000000
12/31/2011	-9.000000	0.000000	0.00				
12/31/2010	0.000000	0.000000	0.00	**Book value**	**(12/31/2012)**	R$	869,000,000.00

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.

Business Year	Book value variation (%)	Market value	variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	14.000000		0.000000	19,000,000.00	**Market value**	**(12/31/2012)**		
12/31/2011	17.000000		0.000000	0.000000				
12/31/2010	0.000000		0.000000	0.000000	**Book value**	**(12/31/2012)**	R$	342,000,000.00

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Reasons for buying and holding that participation Relaminating operations in the USA.

[redacted]

Companhia Coreano-Brasileira de Pelotização Kobrasco	33.931.494/0001-87	Controlled	Brazil	ES	Vitória	50.000000

[redacted]

Business Year	Book value variation (%)	Market value	variation (%)	Amount of dividends received (Reais)	Date		Value
12/31/2012	5.000000		0.000000	40,000,000.00	**Market value**	**(12/31/2012)**	
12/31/2011	0.000000		0.000000	54,000,000.00			
12/31/2010	38.670000		0.000000	18,000,000.00	**Book value**	**(12/31/2012)** R$	219,000,000.00

[redacted]

Companhia Hispano-Brasileira de Pelotização Hispanobras	27.240.092/0001-33	Controlled	Brazil	ES	Vitória	50.890000

[redacted]

Business Year	Book value variation (%)	Market value	variation (%)	Amount of dividends received (Reais)	Date		Value
12/31/2012	-1.000000		0.000000	74,000,000.00	**Market Value**	**(12/31/2012)**	
12/31/2011	1.000000		0.000000	0.00			
12/31/2010	45.210000		0.000000	32,000,000.00	**Book Value**	**(12/31/2012)** R$	213,000,000.00

Reasons for buying and holding that participation Expansion of Vale s participation in the pellet market in Brazil

[redacted]

Companhia Ítalo-Brasileira de Pelotização Itabrasco	27.063.874/0001-44	Controlled	Brazil	ES	Vitória	50.900000

[redacted]

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	-15.000000	0.000000	36,000,000.00	**Market Value**	**(12/31/2012)**		
12/31/2011	5.000000	0.000000	71,000,000.00				
12/31/2010	-10.060000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	130,000,000.00

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[redacted]

Companhia Nipo-Brasileira de Pelotização Nibrasco	27.251.842/0001-72	Affiliate	Brazil	ES	Vitória	51.000000

[redacted]

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	-2.000000	0.000000	51,000,000.00	**Market Value**	**(12/31/2012)**		
12/31/2011	12.000000	0.000000	36,000,000.00				
12/31/2010	30.590000	0.000000	5,000,000.00	**Book Value**	**(12/31/2012)**	R$	364,000,000.00

Reasons for buying and holding that participation Expansion of Vale s participation in the pellet market in Brazil.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Companhia Portuária da Baia de Sepetiba CPBS	04.788.980/0001-90		Controlled	Brazil	RJ	Rio de Janeiro	100.000000

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. Secondarily 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.

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	30.000000	0.000000	126,000,000.00	**Market Value**	**(12/31/2012)**		
12/31/2011	12.000000	0.000000	155,000,000.00				
12/31/2010	0.000000	0.000000	147,000,000.00	**Book Value**	**(12/31/2012)**	R$	454,000,000.00

Reasons for buying and holding that participation Supply port services for iron ore operations.

Corporate Name	CVM Code	Type of Corporation	HQ - Country	HQ - State

	CNPJ (Corporate Tax ID)					HQ - Municipality	Issuer participation (%)
Ferrovia 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

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[redacted]

12/31/2012	24.000000	0.000000	0.00	**Market Value**	**(12/31/2012)**	R$	0.00
[redacted]							
12/31/2010	12.400000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	2,926,000,000.00

[redacted]

Ferrovia Norte Sul S.A.	09.257.877/0001-37	2181-4	Controlled	Brazil	MA	São Luís	100.00000

[redacted]

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	-1.000000	0.000000	0.00	**Market Value**	**(12/31/2012)**	R$	0.00
12/31/2011	0.00000	0.000000	3,000,000.00				