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

	Fiscal Year Ended December 31		
	2012	2011	2010
a. Rules on retention of profits	**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.		
	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.	**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.	**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.
b. Arrangements for distribution of dividends	**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.		

	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

(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**

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(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

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 2010	2011 (thousand metric tons)	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.

	Production during fiscal year ending December 31		
Plant	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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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 (Thousands of metric tons)	2012
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	Production during fiscal year ending December 31 2010	2011 (million metric tons)	2012
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.

Mine (1)	**Type**	**Production for fiscal year ending December 31** **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 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	2010	2011	2012
			Production for fiscal year ending December 31 (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	2012
		(million metric tons)	
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			Recovery rate
		2010	2011	2012	
			(Thousands of metric tons)		(%)
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 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.

			Our participation		
			Voting	Total	
Firm	**Business**	**Location**	(%)		**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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Firm	Business	Location	Our participation Voting	(%) Total	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

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				
12/31/2010	35.000000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	1,717,000,000.00

[redacted]

Henan Longyu Energy Resources Co. Ltd.	00.000.000/0000-00		Affiliate	China			25.000000

[redacted]

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date	Value
12/31/2012	32.000000	0.000000	107,000,000.00	**Market Value**	**(12/31/2012)**	
12/31/2011	27.000000	0.000000	0.00			
12/31/2010	-4.140000	0.000000	147,000,000.00	**Book Value**	**(12/31/2012)**	R$ 697,000,000.00

[redacted]

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Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Log-In Logística Intermodal S.A.	42.278.291/0001-24	2071-0	Affiliate	Brazil	RJ	Rio de Janeiro	31.330000

Description of activities Operate its own or third-party boats for long-distance maritime commerce, coastal, and river transport of general cargo; operate inland terminals and ports, including port support navigation; carry out warehousing activities and marketing logistics and products services and management of vessels; provide transport services by road and rail, and carry out complementary, related, or incidental activities, related to their main activities, when necessary or convenient for corporate interests.

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	-9.000000	18.870000	0.00	**Market Value**	**(12/31/2012)**	R$	667,667,000.00
12/31/2011	-5.000000	-34.000000	0.00				
12/31/2010	2.700000	22.400000	0.00	**Book Value**	**(12/31/2012)**	R$	192,000,000.00

Reasons for buying and holding that participation provide logistics solutions to clients..

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Mineração Corumbaense Reunida S.A. MCR	03.327.988/0001-96		Controlled	Brazil	MS	Corumbá	100.000000

Description of activities Investigate and research ores and minerals; utilize and administer mine and mineral resources in general; obtain research permits and mining concessions for all kinds of ores and minerals under the terms of the laws regarding these matters; purchase and lease land, equipment, and facilities, including rights and interests in the subsoil and on the surface; purchase, sell, improve, process, refine, industrialize, import and export, market, and transport by rail, road and/or sea, ores, minerals, and metals of any kind whatsoever, on its own behalf or that of third parties; purchase and sell any and all manufactured products, machinery, and equipment related to the activities listed above; represent other companies, domestic and foreign; and participate in other commercial or civil companies, either as a partner, shareholder, or quota holder.

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	23.000000	0.000000	93.000.000.00	**Market Value**	**(12/31/2012)**		
12/31/2011	22.000000	0.000000	0.00				
12/31/2010	-14.100000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	1,365,000,000.00

Reasons for buying and holding that participation Expansion of Vale s participation in the market for granulated iron ore.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Minerações Brasileiras Reunidas S.A. MBR	33.417.445/0001-20		Controlled	Brazil	MG	Nova Lima	98.320000

Description of activities The mineral extraction industry, including prospecting and mining; provision of technical services especially to mining companies; transportation, processing, shipping, and sale of ores, for its own account or that of third parties; export and import of ores; participation in other companies, especially those whose objective is mining or transportation, processing, and shipping and sale of ores; provision of transport services; port and fluvial support.

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	20.000000	0.000000	258,000,000.00	**Market Value**	**(12/31/2012)**		
12/31/2011	16.000000	0.000000	0.00				
12/31/2010	0.000000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	4,538,000,000.00

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[redacted]

MRS Logística S.A.	01.417.222/0001-77	1794-9	Affiliate	Brazil	RJ	Rio de Janeiro	47.590000

[redacted]

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	16.000000	0.000000	119,000,000.00	**Market Value**	**(12/31/2012)**	R$	0.00
12/31/2011	21.000000	0.000000	92,000,000.00				
12/31/2010	4.700000	0.000000	126,000,000.00	**Book Value**	**(12/31/2012)**	R$	1,197,000,000.00

[redacted]

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Norsk Hydro ASA	00.000.000/0000-00		Affiliate	Norway			21.650000

[redacted]

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	-24.000000	11.490000	95.000.000.00	**Market Value**	**(12/31/2012)**	R$	18,292,000,000.00
12/31/2011	-10.500000	-15.830000	0.00				
12/31/2010	0.000000	7.090000	0.00	**Book Value**	**(12/31/2012)**	R$	4,572,000,000.00

[redacted]

Salobo Metais S.A.	33.931.478/0001-94	Controlled	Brazil	RJ	Rio de Janeiro	100.000000

[redacted]

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	37.000000	0.000000	0.00	**Market Value**	**(12/31/2012)**		
12/31/2011	41.000000	0.000000	0.00				
12/31/2010	104.500000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	6,343,000,000.00

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[redacted]

Samarco Mineração S.A.	16.628.281/0001-61		Affiliate	Brazil	MG	Belo Horizonte	50.000000

[redacted]

Business Year	Book Value variation (%)	Market Value	variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	73.000000		0.000000	373,000,000.00	**Market Value**	**(12/31/2012)**		
12/31/2011	10.000000		0.000000	1,384,000,000.00				
12/31/2010	-25.050000		0.000000	1,639,000,000.00	**Book Value**	**(12/31/2012)**	R$	1,288,000,000.00

[redacted]

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Sociedad Contractual Minera Tres Valles	00.000.000/0000-00		Controlled	Chile			90.000000

[redacted]

Business Year	Book Value variation (%)	Market Value	variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	6.000000		0.000000	0.00	**Market Value**	**(12/31/2012)**		
12/31/2011	10.000000		0.000000	0.00				
12/31/2010	-13.600000		0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	460,000,000.00

[redacted]

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Thyssenkrupp CSA Cia. Siderúrgica do Atlântico	07.005.330/0001-19		Affiliate	Brazil	RJ	Rio de Janeiro	26.870000

[redacted]

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[redacted]

12/31/2012	-64.000000		0.000000	0.00	**Market Value**	**(12/31/2012)**		
[redacted]								
12/31/2010	-13.500000		0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	1,092,000,000.00

[redacted]

Corporate Name	**CNPJ (Corporate Tax ID)**	**CVM Code**	**Type of Corporation**	**HQ - Country**	**HQ - State**	**HQ - Municipality**	**Issuer participation (%)**
Vale Austria Holdings GMBH	00.000.000/0000-00		Controlled	Austria			100.000000

[redacted]

Business Year	**Book Value variation (%)**	**Market Value**	**variation (%)**	**Amount of dividends received (Reais)**	**Date**			**Value**
12/31/2012	4.000000		0.000000	0.00	**Market Value**	**(12/31/2012)**		
12/31/2011	383.000000		0.000000	0.00				
12/31/2010	0.000000		0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	8,193,000,000.00

[redacted]

Corporate Name	**CNPJ (Corporate Tax ID)**	**CVM Code**	**Type of Corporation**	**HQ - Country**	**HQ - State**	**HQ - Municipality**	**Issuer participation (%)**
Vale Canada Limited	00.000.000/0000-00		Controlled	Canada			100.000000

[redacted]

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Business Year	Book Value variation (%)	Market Value	variation (%)	Amount of dividends received (Reais)		Date	Value
12/31/2012	21.000000		0.000000	0.00	**Market Value**	**(12/31/2012)**	
12/31/2011	8.000000		0.000000	0.00			
12/31/2010	13.340000		0.000000	0.00	**Book Value**	**(12/31/2012)**	R$ 11,809,000,000.00

[redacted]

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Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale Florestar S.A.	11.985.056/0001-69		Affiliate	Brazil	RJ	Rio de Janeiro	40.000000

[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)**	
12/31/2011	-3.000000	0.000000	0.00			
12/31/2010	0.000000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$ 224.000.000,00

[redacted]

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale International S.A.	00.000.000/0000-00		Controlled	Switzerland			100.000000

[redacted]

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date	Value
12/31/2012	-8.000000	0.000000	0.00	**Market Value**	**(12/31/2012)**	
12/31/2011	9.000000	0.000000	0.00			
12/31/2010	23.300000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$ 35,762,000,000.00

[redacted]

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Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale Manganês S.A.	15.144.306/0001-99		Controlled	Brazil	BA	Congonhas	100.000000

Description of activities The steel industry, metallurgy, industry, and sale of ferroalloys; utilization, for its own account or in combination with other companies, of mineral deposits, including prospecting, mining, processing, transportation, sale, import, and export of mineral substances; reforestation; extraction, production, sale, import, and export of wood and charcoal and other goods of mineral or vegetable origin used in its production processes and their derivatives and by-products; import and export of goods related to or required for its activities, including equipment, inputs, and miscellaneous materials; any other related activities that do not conflict with its business purpose or with prevailing legislation

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	-4.000000	0.000000	958,000.00	**Market Value**	**(12/31/2012)**		
12/31/2011	-19.000000	0.000000	0.00				
12/31/2010	29.100000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	687,000,000.00

Reasons for buying and holding that participation Running of ferroalloy and manganese operations in Brazil

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale Soluções em Energia S.A.	09.327.793/0001-22		Controlled	Brazil	RJ	Rio de Janeiro	53.130000

Description of activities Research and development of technologies in order to obtain systems and products ecologically efficient for the generation of energy, as well as the development and test of prototypes; development of technical and economic viability studies related to the business purpose of the company, as well as market studies, business plans, and other related studies; participation as a partner or shareholder in other simple or business companies and in business undertakings of any nature, including partnerships, in Brazil and/or abroad; development, manufacturing, construction, purchase, sale, distribution, renting, gratuitous loan, importation, and exportation of machines and equipment for the industry, including accessories, parts, and other materials that are necessary in order to obtain ecologically efficient products for generating energy; and rendering services for the assembly, maintenance, and technical assistance of machines and equipment for the generation of energy.

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	-46.000000	0.000000	0.00	**Market Value**	**(12/31/2012)**		
12/31/2011	37.000000	0.000000	0.00				
12/31/2010	15.120000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	146,000,000.00

Develop systems for the generation of energy.

Reasons for buying and holding that participation

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Vale Fertilizantes S.A.	33.931.486/0001-30		Controlled	Brazil	SP	São Paulo	100.000000

Description of activities The purpose of Vale Fertilizantes S.A. (Company), formerly known as Mineração Naque S.A. (Naque), which new name was approved by the Shareholders Meeting held on May 15, 2012, is mining activity in general, the use of mineral deposits in domestic and foreign lands, by research, extraction, processing, concentration, industrialization, transportation, shipping, and sale of goods for animal nutrition, chemical products, input of above mentioned products and other agriculture and cattle-raising products, as well as activities arising out of the development of the production, industrialization, and sale of such products and

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others.

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	7.000000	0.000000	0.00	**Market Value**	**(12/31/2012)**		
12/31/2011	15.000000	0.000000	0.00				
12/31/2010	0.000000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	13,602,000,000.00

Reasons for buying and holding that participation Conduct and promote Vale business in the fertilizer segment.

Corporate Name	CNPJ (Corporate Tax ID)	CVM Code	Type of Corporation	HQ - Country	HQ - State	HQ - Municipality	Issuer participation (%)
Biopalma da Amazonia S.A.	08.581.205/0001-10		Controlled	Brazil	PA	Belém	70.000000

Description of activities Biopalma is a privately-owned corporation which main activities relate to palm oil and other vegetables and extraction, processing, and sale of their oils

Business Year	Book Value variation (%)	Market Value variation (%)	Amount of dividends received (Reais)		Date		Value
12/31/2012	-21.000000	0.000000	0.00	**Market Value**	**(12/31/2012)**		
12/31/2011	0.000000	0.000000	0.00				
12/31/2010	0.000000	0.000000	0.00	**Book Value**	**(12/31/2012)**	R$	349,000,000.00

Reasons for buying and holding that participation Explore the palm oil production complex located in the State of Pará.

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9.2 Other Relevant Information

As of December 31, 2012, Vale considered as intangibles of Intellectual Property a total of 7,613 processes throughout the world, in a total of 160 countries (358 patents in Brazil and 2,375 abroad; 913 trademark processes in Brazil and 1,529 abroad; and 1,790 domain names in Brazil and 603 abroad; and 45 software programs in Brazil).

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10.1. General Financial and Equity Conditions

a. General Financial and Equity Conditions

2012 was a very challenging year for the world s economy, which, amidst a cloud of uncertainties, grew below the long-term trend for the second consecutive year. One of the consequences of the adverse macroeconomic scenario was the general drop in the price of minerals and metals, with the exception of gold, a very valuable metal whose prices are influenced by other factors. The iron ore price became very volatile, showing great low volatility particularly in the third quarter.

In this context, our financial performance was negatively affected. The financial indices dropped significantly relative to 2001, a year in which Vale S.A. (Vale or Company) reached its best financial performance since it was established in 1942. The basic net profit reached R$ 22.2 billion(2), against R$ 39.2 billion in 2011, and the adjusted EBIDTA was R$ 37.4 billion(3), thus reduced by 33.5%, although it is still the third largest in our history. The reduction came primarily from lower 2012 prices, which had a negative impact of R$ 22.8 billion on the EBIDTA.

In 2011, Vale S.A. (Vale) had strong performance, characterized by record net operating revenues (R$ 102.0 billion), operating income (R$ 50.4 billion), operating margin (49.4%), cash generation (R$ 56.3 billion) and net income (R$ 37.8 billion).

The year 2010 was marked by strong recovery with extraordinary performance, due to two main factors. On one hand, the initiatives developed in 2009 in response to the global recession, focusing on structural transformations, started to present returns. On the other hand, the global economy, led by the emerging companies, which are the main source of expansion of demand for ores and metals, showed exceptional growth.

In 2012, our shareholders received dividends in the amount of US$ 6.0 billion, the second largest in Vale s history and one of the largest for all global mining companies. Several measures have been taken to minimize the need for working capital, aiming at generating more resources to finance projects and increase capital management. Initiatives to permanently reduce cost structure are being actively pursued, but it will require some time before material changes are observed.

Bulk materials sales iron ore, pellets, manganese ore and ferroalloy, thermal and metallurgical and coal represented 73.7% of total net operating revenues in 2012 relative to 75.7% in 2011. Participation of basic metals in total net revenues was 14.9%, relative to 15.8% and 17.3% in 2011 and 2010, respectively. Revenues from fertilizers in 2012 were 7.5% above the 5.4% and 3.6% in 2011 and 2010, respectively. Logistics services contributed with 2.9% of the total net operating revenue in 2012, and other products, with 1.0%.

Business segments	**2010**	**2011**	**2012**
Bulk Materials	75.5%	75.7%	73.7%
Basic Metals	17.3%	15.8%	14.9%
Fertilizers	3.6%	5.4%	7.5%
Logistics services	2.6%	2.3%	2.9%
Others	0.9%	0.8%	1.0%

In 2012, operating profit, measured by the adjusted EBIT(4) reached R$ 28.105 billion, 41.4% less than the R$ 47.925 billion in 2011 (corresponding to R$ 37.50 billion in 2010). The adjusted operating margin during the year reached 30.1%, relative to 47.0% in 2011 (47.0% in 2010).

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(2) Net profits excludes non-cash and non-recurrent effects

(3) Adjusted EBIDTA excluding non-recurrent effects.

(4) EBIT excluding non-recurrent effects.

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In 2012, the company reached a cash generation, measured by adjusted EBITDA of R$ 37.434 billion, 33.5% lower than the previous year, which was R$ 56.329 billion (relative to R$ 43.537 billion in 2010).

Adjusted EBITDA

in R$ million	**2010**	**2011**	**2012**
Net Operating revenue	80,677	102,019	93,511
Adjusted EBIT	37,950	47,925(1)	28,105(1)
Adjusted EBIT margin (%)	47.0%	47.0%(1)	30.1%(1)
Adjusted EBITDA	43,537	56,329(1)	37,434(1)
Net profit of the year	30,422	37,408	9,233
Remuneration to shareholder (parent company)	5,095	15,053	11,595
ROE (%)(2)	25.9%	25.5%	5.9%

(1) Excludes non-recurring effects

(2) Return on equity

EBITDA

In R$ millions	**2010**	**2011**	**2012**
Net profit for the year	30,070	37,408	9,233
Income tax and social contribution	6,437	8,514	(2,641)
Net finance results	2,831	6,352	8,405
Result from participation in associated companies	(1,962)	(1,857)	(1,241)
Reduction on investments recoverable value			4,002
Result from discontinued operations	222		
EBIT (Earnings Before Income and Taxes)	37,950	50,417	17,758
Depreciation, amortization, and depletion	5,440	6,638	8,397
EBITDA (Earnings Before Income, Taxes, Depreciation, and Amortization)	43,390	57,055	26,155

Adjusted EBITDA reconciliation

In R$ millions	**2010**	**2011**	**2012**
EBITDA	43,390	57,055	26,155
Dividends	147	1,766	932
(Gain) loss in assets sales	0	(2,492)	1,036
Reduction in assets recoverable value *(Impairment)*	0		8,211
CFEM	0		1,100

Adjusted EBITDA	43,537	56,329	37,434

b. Capital Structure

Vale s shareholders equity on December 31, 2012 was R$ 155.633 billion. On the same date, the gross debt added was R$ 61.856(5) billion, with a cash position of R$ 11.918 billion. The gross debt index and obligations with third parties /shareholders equity and participation of non-controlling shareholders was 39.7% compared to 29.4% on December 31, 2011, and 35.2% on December 31, 2010.

On December 31, 2011, net shareholders equity was R$ 146.681 billion, gross debt totaled R$ 43.072billion, and the cash position was R$ 6.593 billion.

On December 31, 2010, shareholders equity was R$ 116.326billion, gross debt was R$ 40.918 billion, and the cash position was R$ 12.636 billion.

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(3) Includes cash and cash equivalents and investments of up to 90 days.

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i. Hypotheses of Redemption

ii. Redemption Value Method

Vale s by-laws do not authorize the application of profits or reserves to redeem or amortize shares. Additionally, on the date of this Reference Form, Vale s Management does not intend to call a Special Shareholders Meeting for this purpose.

c. Payment Capacity in Relation to the Financial Commitments Assumed

(1) Vale enjoys a healthy financial position, supported by strong cash generation, ample liquidity, availability of short- and long-term credit facilities, and a portfolio of debt with low risk. This position gives us the capacity to easily pay our financial commitments.

(2) The leverage, measured by the ratio of total debt/adjusted(6) EBITDA, increased to 1.7x on December 31, 2012, compared to 0.8x on December 31, 2011 and 0.9x on December 31, 2010.

(3) For more information on the EBITDA and adjusted EBITDA reconciliation, see item 10.1(a) above.

(4) The total debt/EV(7) ratio was equal to 22.5% on December 31, 2012, while the index of interest coverage, measured by the indicator EBITDA/payment of interest, was 14.5x on December 31, 2012.

in R$ million	2010	2011	2012
Gross debt	40,917	43,072	61,856
Cash position *	12,636	6,593	11,918
Net debt	28,282	36,479	49,938

* Includes cash and investments up to 90 days.

d. Source of financing for working capital and investments in non-current assets

The sources of funds utilized by Vale were generation of operating cash, loans and financing, and issue of bonds and securities, convertible or not, launched in the capitals market.

Operating activities generated cash flows of R$ 33.081 billion in 2012, compared with R$ 39.689 billion in 2011, and R$ 31.409 billion in 2010. Operating cash flows grew significantly in recent years until 2008, driven by the growth in sales volume and by the high of prices of our products. In 2009, this cycle of growth was interrupted as a result of negative effects of the global recession on the prices and volumes of sales. In 2010, growth was resumed and the strong recovery of demand reflected positively on the price. Performance in 2011 was driven by higher prices and by the recovery of volumes sold. In 2012, reduction was determined mainly by price drops.

Among other more relevant operations in the three-year period, the following are highlighted:

- In October 2012, Vale issued a credit note to exports in the amount of R$ 2.5 billion at a Brazilian commercial bank for 10 years. The amount was fully disbursed until December 21, 2012.

- In September 2012, Vale priced the offer of US$ 1.5 billion (equivalent to R$ 3.1 billion) in bonds. The bonds have a yearly coupon rate of 5.625%, paid biannually, and they were priced at 99.198% of the bond s face value. The bonds matures in September 2042 and were issued with a 300 basis point spread on US Treasure bonds, resulting in a yearly yield of 5.681% for the investor.

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(6) Excluding non-recurrent items

(7) EV*, enterprise value*, equals the sum of the company s market capitalization with the net debt.

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- In September 2012, the National Bank for Economic and Social Development (BNDES) approved a financing contract in the amount of R$ 3.9 billion to Vale, for the implementation of the CLN 150 Mtpa project, whose purpose is to expand to 150 million annual tons the iron ore transport and shipping capacity of Vale s Northern System, which encompasses the Carajás Railroad (EFC) and the Ponta Madeira rail and sea terminals, in the states of Pará and Maranhão. The financing disbursement will be made according to the project s execution chronogram. By December 31, 2012 Vale had disbursed US$ 1.0 million (the equivalent to R$ 2 billion) from this credit line

- In August 2012, Vale International signed an export pre-payment contract with a commercial bank in the amount of US$ 150 million (equivalent to R$ 307 million), with maturity 5 years after the disbursement. By December 31, 2012 Vale International had fully disbursed the credit line.

- In July 2012, Vale priced the 750 million (equivalent to R$ 1.9 billion) bonds offer at 10.5 years. Vale will use the net resources from this offer for general corporate purposes. The notes maturing in 2023, in the amount of 750 million (equivalent to R$ 1.9 billion) have a coupon rate of 3.75% per year, paid annually, and they were priced at 99.608% of the bond s face value. The bonds mature on January 10, 2023, and they have been issued with a 180 basis points spread over the mid-swap, or a 225.7 basis points spread over the German Bund s return bonds, resulting on an annual yield of 3.798% for the investor.

- In April 2012, Vale priced the bonds offer of its full subsidiary Vale Overseas Limited (Vale Overseas) at US$ 1.250 billion (equivalent to R$ 2.6 billion), guaranteed by Vale. The bonds are consolidated and form a single series, with Vale Overseas bonds issued on January 11, 2012, of US$ 1 billion (equivalent to R$ 2.0 billion) with a 4.375% coupon rate and maturity in 2022. Bonds issued in April will have an annual 4.375% coupon rate, paid biannually, at 101.345% of the bond s face value. These bonds mature in January 2022 and they have been issued with a 200 basis points spread over US Treasury bonds, resulting in an annual yield of 4.205% to the investor.

- In January 2012, Vale priced the bonds offer of its full subsidiary Vale Overseas Limited (Vale Overseas) at US$ 1 billion (equivalent to R$ 2 billion). The bonds have an annual 4.375% coupon rate, paid biannually, at 98.804% of the bond s face value. These bonds mature in January 2022 and they have been issued with a 225 basis points spread over US Treasury bonds, resulting in an annual yield of 4.525% to the investor.

- In August 2011, Vale signed an agreement with commercial banks with the support of the Korean Trade Insurance Corporation (K-SURE), in order to finance the acquisition of five shipments of large-scale ore and two capesize ships. The total amount contracted was US$ 528 million (equal to R$ 1.1 billion), and the funds will be disbursed according to delivery of the ships. By December 31, 2012, Vale had disbursed US$ 409 million (equal to R$ 836 million) from this line of credit and the remaining share of the credit line was cancelled.

- In January 2011, Vale signed an agreement with some commercial banks with the guarantee of the official Italian credit agency Servizi Assicurativi Del Commercio Estero S.p.A (Sace) to provide a line of credit of US$ 300 million (equivalent to R$ 613 million) for 10 years. The full amount of this line of credit was used by Vale in 2011.

- In October 2010, Vale signed an agreement with Export Development Canada (EDC), the official credit agency for exports from Canada, to finance the package of Vale s Investments Program. According to the contract, EDC provides a line of credit for up to US$ 1.0 billion (equivalent to R$ 2.0 billion). The amount of US$ 500 million (equivalent to R$ 1.0 billion) will be available for investment operations in Canada, the remaining US$ 500 million (equivalent to R$ 855.6 million) is available for financing Vale s purchases from Canadian companies for the supply operations outside of Canada. By December 31, 2012, Vale had used US$ 975 million (equivalent to R$ 1.0 billion [sic]) of this line of credit.

- In September 2010, Vale issued US$ 1.75 billion (equivalent to R$ 3.6 billion), with US$ 1.0 billion (equivalent to R$ 2.0 billion) in bonds maturing in 2020 and a coupon rate of 4.65%, with semi-annual payments and US$ 750 million (equivalent to R$ 1.6 billion) through the reopening

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of the 2039 bond, with yield to the investor of 6.074%. The 2039 bond is part of the US$ 1.0 billion (equivalent to R$ 2.0 billion) bond issued in November 2009.

- In September 2010, Vale signed a contract with The Export-Import Bank of China and the Bank of China Limited to finance the construction of 12 ships, with capacity of 400,000 dwt, for the total amount of up to US$ 1.229 billion (equivalent to R$ 2.5 billion). The financing has a total period for payment of 13 years and Vale will receive the funds over the next three years according to the ship construction schedule. By December 31, 2012, US$ 837 million had been disbursed (equivalent to R$ 1.7 billion) from this line of credit.

- In June 2010, Vale entered into an agreement with the National Bank for Economic and Social Development (BNDES) for some lines of credit totaling R$ 774 million, to finance the acquisition of certain equipment. In March 2011, Vale increased that line of credit through a new agreement with the BNDES in the amount of R$ 103 million. By December 31, 2012, R$ 700 million had been disbursed from those lines of credit.

- In June 2010, Vale signed an export pre-payment financing agreement in the amount of US$ 500 million (equivalent to R$ 1.0 billion) with maturity in 10 years.

- In March 2010, Vale raised 750 million (equivalent to R$ 1.9 billion) through eight-year Eurobonds at the price of 99.564% of their face value. The notes maturing in March 2018 have a coupon of 4.375% per year, paid annually.

e. Potential sources of financing used for working capital and for investments in non-current assets for coverage of liquidity deficiency

In the regular course of business, Vale s principal need for funds refers to capital investments, payments of dividends and debt service. The sources of funds frequently used are operating cash flow and financing.

Moreover, the main sources of financing to cover liquidity deficiency are the facilities related to the export transactions offered by local banks (Advance on Foreign Exchange Contract ACCs, and Advance on Delivered Exchange Instruments - ACEs).

Vale has, moreover, revolving lines of credit available that may be used at the option of the debtor. On December 31, 2012, the amount available involving lines of credit was US$ 3.0 billion (equivalent to R$ 6.1 billion) that may be used by Vale, Vale Canada Ltd. (Vale Canada), and Vale International S.A. (Vale International). By December 31, 2012, Vale had not used any of this credit.

f. Indebtedness levels and composition of such debts

On December 31, 2012, the total debt was R$ 61.856 billion, with a tranche of R$ 2.963 billion guaranteed by Vale s assets, with an average maturity period of 10.14 years and an average cost of 4.6% per year in US dollars.

DEBT STRUCTURE

In R$ million	**2009**	**2010**	**2011**
Gross debt	40,917	43,072	61,856
Tranche guaranteed by assets of Vale	40%	4%	45%
Average term of maturity (in years)	9.6	9.8	10.14
Average cost (in US dollars)	4.9%	4.8%	4.6%

Since July 2005, Vale has been considered investment grade. Vale currently has the following credit risk ratings: A- (Standard & Poor s), Baa2 (Moody s), BBB high (Dominion Bond Ratings) and BBB+ (Fitch).

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i. Relevant loan and financing contracts

Short-term debt consists principally of financing for exports (trade financing) and imports expressed in US dollars, with financial institutions. On December 31, 2012, there was no open short-term debt, relative to the R$ 40 million and R$ 232 million in 2011 and 2010, respectively.

The most important categories of the long-term debt are presented below. The values presented include the short-term portion of the long-term debt and exclude the accumulated costs.

- *Loans and financing expressed in US dollars (R$ 8.1 billion, R$ 6.0 billion, and R$ 8.1 billion on December 31, 2012, 2011 and 2010, respectively)*. These loans include credit facilities for exports, financing imports from the export credit agencies and loans from commercial banks and multilateral organizations. The main credit facility is a prepayment for exports linked to future exports, originally in the amount of US$ 6.0 billion (equivalent to R$ 12.3 billion), raised as part of the refinancing of the debt for the acquisition of Inco, now Vale Canada. On December 31, 2012, the outstanding balance was US$ 400 million (equivalent to R$ 817 million)

- *Fixed income instruments expressed in US dollars (R$ 27.8 billion, R$ 19.6 billion, and R$ 17.1 billion on December 31, 2012, 2011 and 2010, respectively).* Vale issued several debt securities in the capital market, inclusive through its wholly owned subsidiary Vale Overseas in the total amount of US$ 12.9 billion (equivalent to R$ 26.4 billion). The subsidiary Vale Canada issued debt securities in the amount of US$ 700 million (equivalent to R$ 1.4 billion).

- *Fixed income instruments in euros (R$ 4.0 billion, R$ 1.8 billion and R$ 1.7 billion on December 31, 2012, 2011 and 2010, respectively).* Vale issued debt securities in the capital market in the total amount of 1.5 million (equivalent to R$ 4.0 billion).

- *Non-convertible debentures expressed in reais (R$ 4.8 billion, R$ 4.7 billion and R$ 4.7 billion on December 31, 2012, 2011, and 2010 and 2009, respectively).* In November 2006, the Company issued non-convertible debentures in the amount of approximately US$ 2.7 billion (equivalent to R$ 5.5 billion), in two series, maturing in four and seven years. The first series of US$ 734 million (equivalent to R$ 1.5 billion), expired in 2010, with interest of 101.75% on the accumulated variation of the interest rate of the CDI (interbank deposit certificate). The second series of US$ 2.0 billion (equivalent to R$ 4.0 billion), maturing in 2013, has interest that varies from the CDI plus 0.25% per year.

ii. Other long-term relationships with financial institutions

Vale and its associated and subsidiary companies have a commercial relationship in the normal course of their business with some of the main financial institutions in the country, according to regular financial market practices.

Other debts totaled R$ 16.3 billion, R$ 10.4 billion, and R$ 8.4 billion on December 31, 2012, 2011 and 2010, respectively. The Company has several loans contracted in Brazil, especially with the BNDES and some Brazilian private banks, in addition to loans and financing in other currencies.

iii. Degree of subordination among debts

There is no degree of contractual subordination among the Company s unsecured financial debts. Financial debts that are secured through collateral have the privileges and prerogatives granted by the law.

Additionally, considering the total of current and non-current liabilities of the Company, the R$ 108,328 million or 97.3 %, corresponded to unsecured debts on December 31, 2012 (compared to R$ 93,188 million or 98.0% on December 31, 2011 and R$ 98,032 million, or 99.7% on December 31, 2010). Such amounts are subject to the preference of Company obligations that appear as collateral, including

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mortgage of assets and others totaling, on December 31, 2012, the amount of R$ 2,962 million or 2.7% (compared to R$ 1,902 million or 2.0% on December 31, 2011 and R$ 305 million or 0.3% on December 31, 2010) of the total of current and non-current liabilities of the Company.

iv. Any restrictions that might be imposed on the issuer in particular, in relation to limits of indebtedness and contracting the company s debts, the distribution of dividends, the disposal of assets, the issue of new securities and the transfer of corporate control

Some long-term financial instruments contain obligations related compliance with financial indicators. The main indicators are: (i) debt on Earnings Before Interest Tax, Depreciation and Amortization (EBITDA), and (ii) interest coverage. Vale is in conformity with the levels required for the indicators. It is believed that the current clauses will not significantly restrict the capacity to contract new debts to meet capital needs. Additionally, no clause directly restricts the ability to distribute dividends or interest on own equity. For more information on these financial indices, please see item 3.7 of this Reference Form

g. Limits of use of financing already contracted

Certain financing contracts signed by Vale establish restrictions in connection with the use of funds. The following is a description of the relevant financing contracts:

Date	Counterparty	Allocation		Value	Percentage Used	Disbursement of funds
12/20/2012	BNDES	Credit to finance VLI Multimodal Equipment	R$	90.99 million	0%	Credit is provided in tranches according to the project schedule
12/19/2012	Banco do Brasil	Credit to finance VLI Multimodal Equipment	R$	90.99 million	0%	Credit is provided in tranches according to the project schedule
10/19/2012	BNDES	Credit to finance Vale Fertilizantes Project	R$	88.63 million	100%	Credit is provided in tranches according to the project schedule
09/24/2012	BNDES	Credit to finance CLN150 Project	R$	3.88 million	54%	Credit is provided in tranches according to the project schedule
8/04/2011	Banco Bilbao Viscaya, Banco Santander, BNP Paribas, Citibank Europe, Credit Agricole, HSBC, Natixis, and Societé Generale	Credit to finance the acquisition of ships with the Korean shipbuilders Daewoo and Sungdong	R$	1.079 billion	77%	The credit was provided in tranches according to the ship delivery schedule, and the remaining unused balanced was cancelled
11/23/2010	BNDES	Supplementation of funds related to implementation of the Estreito Hydroelectric	R$	208.03 million	94%	The credit is provided in tranches according to the project schedule

Plant

10/27/2010	BNDES	Credit allocated to financing of equipment and expansion of production capacity	R$ 246.6 million	91%	The credit is provided in tranches according to the project schedule
9/09/2010	Exim Bank of China Limited	Credit allocated to financing for the acquisition of ships from the shipbuilder Rongsheng	R$ 2.511 billion	68%	The credit is provided in tranches according to the schedule of payments contemplated in the construction contract
6/30/2010	Banco do Brasil(8)	Credit allocated to financing equipment	R$ 57.2 million	84%	The credit is provided in tranches according to the project schedule
6/30/2010	Banco do Brasil	Credit allocated to financing equipment	R$ 16.8 million	70%	The credit is provided in tranches according to the project schedule
6/30/2010	Banco do Brasil	Credit allocated to financing equipment	R$ 59.8 million	100%	The credit is provided in tranches according to the project schedule
6/30/2010	Banco do Brasil	Credit allocated to financing equipment	R$ 17.8 million	79%	The credit is provided in tranches according to the project schedule
6/30/2010	Banco Santander and Banco Bradesco	Credit allocated to financing equipment	R$ 135.1 million	85%	The credit is provided in tranches according to the project schedule
6/30/2010	Banco do Brasil	Credit allocated to financing equipment	R$ 175.8 million	96%	The credit is provided in tranches according to the project schedule
6/29/2010	BNDES	Credit allocated to financing equipment	R$ 135.1 million	85%	The credit is provided in tranches according to the project schedule
6/29/2010	BNDES	Credit allocated to financing equipment	R$ 175.8 million	96%	The credit is provided in tranches according to the project schedule
4/01/2008	BNDES	Credit allocated to investments made in Brazil	R$ 7.3 billion	49%	The credit is provided in tranches according to the project schedule
3/11/2008	BNDES	Credit allocated to construction of the Estreito Hydroelectric Plant, its transmission lines and several social investments	R$ 808.4 million	100%	The credit is provided in tranches according to the project schedule

(8) This contract, originally with Banco Votorantim, was transferred to Banco do Brasil in October 2011.

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h. Significant alterations in each item of the financial statements

Analysis of Operating Results, 2012 vs. 2011

The table below presents the values for the consolidated income statements for the fiscal years ended December 31, 2011 and December 31, 2012:

Income statements ended on December 31
(in R$ billions)

Income Statement	2011	Variation (%)	2012
Net Operating Revenues	102,019	(8.3)%	93,511
Cost of products and services	(42.451)	22.5%	(51.997)
Administrative and sales expenses	(3.985)	9.9%	(4.381)
Research and development	(2.822)	3.2%	(2.912)
Other expenses	(4.836)	49.2%	(7.216)
Reduction of assets recoverable value			(8.211)
Gain in the realization of assets available for sale	(2.492)	(141.6)%	(1.036)
Operating Revenues	50.417	(64.8)%	17.758
Result of corporate participations	1.857	(33.2)%	1.241
Net financial result	(6.352)	32.3%	(8.405)
Reduction of investments recoverable value			(4.002)
Income before income tax and social contribution	45.922	(85.6)%	6.592
Income tax and social contribution	(8.514)	131.0%	2,641
Income (loss) of non-controlling shareholders	0.406	23.4%	0.501
Net Income attributed to controlling shareholders	37.814	(74.3)%	9.734

Income statements from year ended December 31, 2011, compared to the year ended December 31, 2012

Revenues

Net operating revenues were R$ 93.511 billion in 2012, compared with R$ 102.019 in 2011, an increase of 8.3% over 2011.

In 2012, the drop in revenues was basically due to prices dropping, which contributed to the reduction in revenues with R$ 6.099 billion.

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Iron ore

Revenues from sales of iron ore dropped 13.2%, from R$ 61.035 billion in 2011 to R$ 52.959 billion in 2012, due to the average sale price drop.

Pellets

Revenues from pellet sales dropped 3.7%, from R$ 13.270 billion in 2011, to R$ 12.778 billion in 2012, due to the 11% drop in market price. The same effect was observed in iron ore, which was partially offset by an increase in 8.4% of volumes sold due to a ramp-up in our Omã operations.

Manganese ore and ferroalloy

Revenues from manganese and ferroalloy sales dropped 6.3%, going from R$ 1.126 billion in 2011 to R$ 1,055 billion in 2012. Due to the sales of ferroalloy operations in Europe, the manganese sales for these locations have been accounted. Thus, the volumes of manganese increased 69.1% while the volume of ferroalloy decreased by 30.8%.

Coal

Revenue from coal sales increased 17.5%, from R$ 1.795 billion in 2011 to R$ 2.109 billion in 2012, due to an increase of 4.2% in volume sold as a consequence of the increase in production in Mozambique, partially compensated by the sales of assets in Colombia. The average price increase of 13.3% resulted from an increase in volume of metallurgic coal sold as a consequence of the Mozambique mine development and of the sales of thermal coal assets in Colombia.

Basic Metals

Nickel and other products

There was a 14.3% drop in revenues from sales of these products, from R$ 13.596 billion in 2011 to R$ 11.657 billion in 2012, mainly due to

(i) the 8.2% price drop and a reduction of 8.6% in nickel volume sold due to the Sudbury shutdown which occurred in the first quarter of 2012; and,

(ii) the 15.2% drop in copper volumes sold due to the Sudbury shutdown, which was partly offset by the 7.9% increase in average sale price.

Copper

Revenues from sales of copper increased 23.6%, from R$ 1.842 billion in 2011, to R$ 2,276 billion in 2012, due to the 10.6% increase in volume sold as a result of the onset of operations at Salobo, partially offset by the 6.2% drop in average sale price.

Fertilizers

Potash

Revenues from potash sales increased 24.5%, from R$ 457 million in 2011, to R$ 569 million in 2012, due to the 22.7 increase in average sale price and the 2.3% increase in volumes sold.

Phosphate

Revenues from phosphate sales increased 26.4%, from R$ 3.898 billion in 2011, to R$ 4,926 billion in 2012, reflecting the 12.3% increase in volume resulting from the ramp-up in phosphate rock operations in Bavóvar, in Peru, and the 13.1% price increase due to exchange rate variation.

Nitrogen

Sales revenues from nitrogen increased 20.2%, from R$ 1.136 billion in 2011, to R$ 1.366 billion in 2012, reflecting average sale prices increase of 13.9%.

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Logistics services

Revenues from logistics services increased 14.5%, from R$ 2.367 billion in 2011 to R$ 2,710 billion in 2021.

Other products and services

Revenues from other products and services increased 19.1%, from R$ 805 million in 2011 to R$ 959 million in 2012. This occurred mainly because of the higher revenues from energy products.

Costs of Products and Services

Costs related to services and goods sold by Vale are detailed below:

Comments on Cost by Type of Product

The total cost of products and services totaled R$ 51.997 billion in 2012, compared with R$ 42.451 billion in 2012, an increase of 22.5%. The impact was mainly due to: (a) higher maintenance cost and improvements in iron ore, pellets and nickel and by the increase in volumes produced in the fertilizer and copper operations (beginning of Salobo operation), partially offset by the (c) drop in basic metals volumes sold.

• Outsourced services. The cost of outsourced services increased 31.2% in 2012, from R$ 7.107 billion in 2011, to R$ 9.325 billion in 2012, reflecting increases in maintenance expenses in the nickel operations.

• Materials costs. Materials costs increased by 32.9% in 2012, from R$ 6.276 billion in 2011, to R$ 8.341 billion in 2012, mainly due to maintenance expenses in the nickel and iron ore operations, as well as more expenses with the purchase of ammonia and urea used in the fertilizer activities, due to prices.

• Costs of energy and fuels. Energy and fuel costs increased 10.7% in 2012, from R$ 5.184 billion in 2011 to R$ 5,739 billion in 2012, due to price increase.

• Personnel costs. Personnel costs increased 31.7%, from R$ 5.269 billion in 2011, to R$ 6.937 billion in 2012, reflecting the increase in number of employees due to the increase in activities, the 8% adjustment of salaries paid in Brazil, and bonds payment made biannually to employees working in remote areas.

• Acquisition of products. The cost of products purchased from third parties decreased 30.1%, from R$ 3.887 billion in 2011, to R$ 2.718 billion in 2012, mainly due to the reduction in nickel s purchase volume and the purchase price drop in iron ore and pellets from third parties.

• Depreciation and depletion. The cost of depreciation and depletion increased 24.0%, from R$ 5.980 billion in 2011, to R$ 7.413 billion in 2012, mainly reflecting the beginning of production of Salobo.

• Other costs. Other costs increase 31.7%, from R$ 8.748 billion in 2011 to R$ 11.524 billion in 2012, mainly sure to the cost of shipping freight.

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Sales and administrative expenses

Sales and administrative expenses increased 9.9%, rising from R$ 3.985 billion in 2011 to R$ 4.381 billion in 2012. The increase is mainly due to (a) greater expenses with personnel, reflecting the 8% increase in salaries due to the collective bargaining agreement of our Brazilian employees and (b) increase in services expenses.

Research and development expenses

Research and development expenses grew 3.2% over 2010, rising from R$ 2.822 billion in 2011 to R$ 2.912 billion in 2012. The relatively stable R&D level was due to maintenance expenses to create long-term growth opportunities.

Asset impairment

Impairment in 2012 in the amount of R$ 8.211 billion refers mainly to the estimate loss for nickel plants for cash flow in the amount of R$ 5.770 billion, cost increase, market price reduction and production reduction, among other factors, in coal plants in Australia in the amount of R$ 2.139 billion. In 2011, there was no impairment.

Other operating costs and expenses

Other operating expenses increased from R$ 4.836 billion in 2011, to R$ 7.216 billion in 2012, a 49.2% increase, due to the provision for contingencies CFEM (Financial Compensation for the Exploration of Mineral Resources) and the provision for ICMS losses and pre-operating expenses, in addition to pre-operating expenses and idle capacity at VNC and Onça Puma, which have significantly increased since 2011.

Result from sale of assets

In 2011, the Company had revenues of R$ 2.492 billion from asset sales, relative to expenses of R$ 1.036 billion in 2013. The gain was due to the sale of aluminum assets in 2011, and the loss is referent to the (a) sales of fertilizer assets Araucária company (R$ 269 million), (b) sales of manganese ferroalloy operations in Europe (R$ 45 million), and (c) sales of coal assets (R$ 722 million).

Result from Corporate Participations

The result from corporate participations decreased 33.2%, from R$ 1.857 billion in 2011 to R$ 1.241 billion in 2012, mainly due to the (a) drop in sales price for pellets negotiated by Samarco, (b) lower revenues from the Itabrasco and Nibrasco leasing, and (c) results from the Norsk Hydro operations.

Net Financial result

The net financial expenses were R$ 8.405 billion in 2012, relative to the financial expenses of R$ 6.352 billion in 2011. The main factor contributing to the negative result was the increase in the monetary and exchange rate variations recorded in 2012 on the Company s loans, the drop in financial revenues due to the annual average cash reduction and derivative losses, as well as expenses in the debentures market participations marks.

Reduction of the investments recoverable value

The reduction reported for 2012 in the amount of R$ 4.002 billion had an impact on our investment in Norsk Hydro (R$ 2.026 million), in Thyssenkrupp CSA (R$ 1.804 billion), and in the Vale Soluções em Energia (R$ 172 million). In 2011, no investment recoverable value was reported.

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Income Taxes and Social Security Contributions

In 2012, we recorded a tax expense on net income of R$ 2.641 billion, compared to R$ 8.514 billion in 2011, basically due to the lower tax base used to calculate taxes due to the reversal in deferred liability as a result of Vale Fertilizantes incorporation operations, and the amount of tax reduction from the assets recoverable value. The effective tax was lower last year, in addition to the fertilizer reversal operation, due to the payment of dividends and interest over its own capital.

Net income attributed to controlling shareholders

The 74.3% drop in net income, from R$ 37.814 billion in 2011 to R$ 9.734 billion in 2012, was mainly due to the factors explained above, with greater impact from the reduction of assets recoverable values.

Analysis of equity accounts

In R$ millions

	2011	**Variation %**	**2011**
Assets			
Current Assets			
Cash and cash equivalents	6,593	80.8	11.918
Short-term investments		n.m.	506
Derivatives at fair price	1,112	(48.3)	575
Accounts Receivable	15,889	(12.6)	13,885
Related parties	154	410.4	786
Inventory	9,833	5.0	10,320
Taxes to be refunded	4,190	10.3	4,620
Advances to suppliers	733	(28.6)	523
Others	1,647	19.8	1,973
Non-current assets held for sale		100.0	935
	40.151	14.7	46,041
Non-current			
Related Parties	904	(7.9)	833
Loans and financing	399	25.8	502
Legal deposits	2,735	13.2	3,095
Income tax and social sec. payments deferred	3,539	129.8	8,134
Taxes to be refunded	1,097	22.4	1,343
Derivatives at fair price	112	(17.0)	93
Deposit for incentives and reinvestment	429	(23.8)	327
Others	1,095	12.7	1,234
	10,310	50.9	15,561
Investments	14,984	(12.9)	13,044

Intangibles	17,798	5.8	18,822
Fixed Assets	153,855	12.7	173,455
	196,938	12.2	220,882
Total Assets	237,089	12.6	266,923

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	2011	Variation %	2012
Liabilities and shareholders equity			
Current liabilities			
Accounts Payable to suppliers and contractors	8,851	4.6	9,255
Salaries and employment taxes	2,442	23.9	3,025
Derivatives at fair price	136	422.1	710
Portion of long-term current loans	2,807	152.7	7,093
Loans and financing	40		
Related Parties	43	883.7	423
Taxes, contributions and royalties	979	(32.2)	664
Income tax provision	955	37.2	1,310
Pension and retirement benefits	316	32.9	420
Payable subconcessions	123	8.1	133
Asset retirement obligation	136	5.1	143
Dividends and interest on own capital	2,207		
Others	1,650	31.4	2,168
	20,685	22.6	25,344
Liabilities related to non-current assets held for sale			327
	20,685	24.1	25,671
Non-current liabilities			
Derivatives at fair price	1,239	29.2	1,601
Loans and financing	40,225	36.1	54,763
Related Parties	171	(16.4)	143
Pension and retirement benefits	2,846	19.1	3,390
Contingency Provisions	3,145	34.1	4,218
Income tax and social sec, deferred payments	10,614	(26.9)	7,754
Provision for asset retirement	3,427	59.7	5,472
Participation Debentures	2,496	35.4	3,379
Non-controlling shareholders redeemable share	943	5.5	995
Others	4,617	(15.5)	3,901
	69,723	22.8	85,619
Shareholders Equity			
Class A preferred shares - 7,200,000,000 authorized shares with no nominal value and 2,108,579,618 (2011 2,108,579,618) issued	29,475		29,475
Common shares 3,600,000,000 authorized shares, no nominal value and 3,256,724,482 (2011 3,256,724,482) issued	45,525		45,525
Mandatorily convertible securities into common shares	360	n.m.	
Mandatorily convertible securities into preferred shares	796	n.m.	
Treasury shares 140,857,692 preferred shares (2011 181,099,814) and 71,071,482 common shares (2011 86,911,207)	(9,917)	(21.0)	(7,838)
Operating results with non-controlling shareholders	(71)	1,083.1	(840)
Result from share conversion/issuance			50
Equity valuation adjustment	220	(611.8)	(1,126)
Accumulated conversion adjustment	(1,017)	(954.7)	8,692
Profit reserves			
Accumulated profits	78,105	0.4	78,450
Total controlling shareholders equity	143,476	6.2	152,388
Non-controlling shareholders interest	3,205	1.2	3,245
Total equity	146,681	6.1	155,633
Total liabilities and equity	237,089	12.6	266,923

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Position on December 31, 2011 compared with the position on December 31, 2012

Vale has assets and debts referenced to different currencies, the main ones being the *real*, the US dollar and the Canadian dollar. On December 31, 2012, we had 51% of our assets related to Brazilian *reais*, 11% to US dollars, 17% to Canadian dollars and 21% to other currencies, while the majority of our debt was expressed in US dollars. Consequently, the effects of changes in exchange rates had an impact on the financial statements, especially the depreciation of the *real* by 9.4% against the US dollar between December 31, 2011 and December 31, 1012.

Current Assets

Cash and cash equivalents.

The 80.8% increase, rising from R$ 6.593 billion on December 31, 2011 to R$ 11.918 billion on December 31, 2012, occurred as a function of: (a) new investment options made in 2012 in the foreign market in the amount of US$ 1.0 billion, 750 million, and US$ 1.5 billion. The resources for these investments were made using operating activities and dividend payments as well as interest on its own capital.

Short-term investments.

On December 31, 2011 no short-term investments had been reported, while on December 31, 2012, R$ 506.0 million were reported.

Derivatives at fair value

The decrease of 48.3% in derivatives at fair value, dropping from R$ 1.112 billion on December 31, 2011 to R$ 0.575 billion on December 31, 2012, essentially refers to the depreciation of the real against the dollar, which is the index for most of the Company s swaps that protect the debt flow in *reais*.

Accounts receivable from customers.

The reduction of 12.6%, dropping from R$ 15.889 billion on December 31, 2011, to R$ 13.885 billion on December 31, 2012, refers mainly to the decrease in sales over 2012 relative to 2011.

Inventories

The 5.0% increase in inventories, rising from R$ 9.833 billion on December 31, 2011 to R$ 10.320 billion on December 31, 2012, refers mainly to the significant increase in production due to Salobo becoming operational.

Taxes to recover or offset

The 10.3% increase in taxes to recover or to offset, rising from R$ 4.190 billion on December 31, 2011 to R$ 4.620 billion on December 31, 2012, refers to the values to be recovered from losses suffered by companies abroad.

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Non-current assets held for sale

There was no execution in 2011. On December 31, 2012, asset sales totaled R$ 935 million, referent to the Araucária company, an operation that produces nitrogen products for Petrobras.

Non-current assets

Related Parties

The related parties balance remains stable, R$ 904 billion on December 31, 2011 and R$ 833 billion on December 31, 2012.

Deferred income tax and social contribution

The increase in the deferred income tax and social contribution of 129.8%, rising from R$ 3.539 billion on December 31, 2011 to R$ 8.134 billion in December 31, 2012, was due to the reversal of deferred income tax on the added value linked to the investment in the nickel and coal areas.

Taxes to recover or offset

The increase in taxes to recover or offset of 22.4%, which rose from R$ 1.097 billion on December 31, 2011 to R$ 1.343 billion on December 31, 2012, refers to advanced income tax report from Vale Canadá

Derivatives at fair price

The 17.0% reduction in derivatives at fair price, which dropped from R$ 112 million on December 31, 2011 to R$ 93 million on December 31, 2012, basically is due to the depreciation of the dollar against the *real,* which is the index for most of the Company s swaps, which protect the Company s debt flow.

Investments

Investments dropped from R$ 14.984 billion on December 31, 2011 to R$ 13.044 billion on December 31, 2012, reflecting a reduction in recoverable value (R$ 4.002 billion) that was offset mainly by the equivalent equity R$ 1.241 billion).

Fixed assets

The 12.7% increase in fixed assets, rising from R$ 153.855 billion on December 31, 2011 to R$ 173.455 billion on December 31, 2012, occurred due to projects in the iron ore, nickel, logistics and fertilizer segments.

Current liabilities

Accounts payable to suppliers and contractors

The 4.6% increase in accounts payable to suppliers and contractors, rising from R$ 8.851 billion on December 31, 2011, to R$ 9.255 billion on December 31, 2012, was basically due to increases with expenses with material.

Portion of liabilities of long-term loans

The 152.7% increase in the portion liabilities of long-term loans, rising from R$ 2.807 billion on December 31, 2011 to R$ 7.093 billion on December 31, 2012, was due to the transfer of short-term 7th issue debentures maturing in 2013.

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Derivatives at fair value

The increase in derivatives at fair value was 422.1%, rising from R$ 136 million on December 31, 2011 to R$ 710 million on December 31, 2012, basically due to the appreciation of the dollar against the *real*, which is the index for the majority of the Company s swaps that protect the Company s flow of debt.

Dividends and interest on own capital

In 2012, there was no record of proposed dividends and interest on own capital, as these were paid in full throughout the year, while in 2011, due to advances for the year 2011 made in August and October of that year, it registered a balance of R$ 2.207 billion for payment of the dividends proposed by Vale in 2012.

Liabilities related to non-current assets held for sale

There was no execution in 2011, while in 2012 such liabilities corresponded to R$ 327 million, due to the Araucária sale.

Non-current liabilities

Derivatives at fair value

The increase in derivatives at fair value was 29.2%, rising from R$ 1.239 billion on December 31, 2011 to R$ 1.601 billion on December 31, 2012, basically due to the appreciation of the dollar against the *real*, which is the index for the majority of the Company s swaps that protect the Company s flow of debt.

Loans and financing

The increase in loans and financing was 36.1%, rising from R$ 40.225 billion on December 31, 2012 to R$ 54.763 billion on December 31, 2012, reflecting the exchange rate variation on the debt and the investments made on foreign markets in the amount of US$ 1.0 billion, 750 million, and US$ 1.5 billion, a financing contract of R$ 4 billion (US% 1.9 billion) from the National Bank for Economic and Social Development (BNDES), with a disbursement of R$ 2 million, and such increase was partially offset by the transfer of short-term 7th issue debenture maturing in 2013.

Provisions for contingencies

Provisions for contingencies increase 34.1%, rising R$ 3.145 billion on December 31, 2011 to R$ 4.218 billion on December 31, 2012, due to the complementation of a provision in the amount of R$ 1 billion for the Financial Compensation for the Exploration of Mineral Resources (CFEM), as a result of prognosis changes related to the deductibility costs of transport from the calculation basis.

Deferred Income tax and social security contribution

In 2012, the deferred income tax and social contribution fell 26.9%, from R$ 10.614 billion on December 31, 2011 to R$ 7.754 billion on December 31, 2012, due to the reversal of differed income tax from Vale Fertilizantes.

Provision with obligations for asset retirement

The increase of 59.7% in provisions with obligation for asset retirement, rising from R$ 3.427 billion on December 31, 2011 to R$ 5.472 billion on December 31, 2012, was due to the annual review of the estimates.

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Shareholder Debentures

The 35.4% increase of shareholder debentures, from R$ 2.496 billion on December 31, 2011 to R$ 3.379 billion on December 31, 2012, refers to these bonds mark to market.

Shareholders Equity of Controlling Shareholders

The shareholders equity of the controlling shareholders increased by 6.2%, rising from R$ 143.476 billion on December 31, 2011 to R$ 152.388 billion on December 31, 2012. The increase in the profit reserves came from withholdings on net income.

Analysis of Operating Results, 2011 vs. 2010

The table below presents the values for the consolidated income statements for the fiscal years ended December 31, 2010 and December 31, 2011:

On December 31
(in R$ billions)

Income Statement	**2010**	**Variation (%)**	**2011**
Net Operating Revenues	80.677	26.5%	102.019
Cost of products and services	(34.166)	24.2%	(42.451)
Administrative and sales expenses	(3.015)	32.2%	(3.985)
Research and development	(1.539)	83.4%	(2.822)
Other expenses	(4.007)	20.7%	(4.836)
Gain in the realization of assets available for sale			2.492
Operating Revenues	**37.950**	**32.9%**	**50.417**
Result of corporate participations	1.962	(5.4)%	1.857
Net financial result	(2.831)	124.4%	(6.352)
Income before income tax and social contribution	**37.081**	**23.8%**	**45.922**
Income tax and social contribution	(6.437)	32.3%	(8.514)
Discontinued Operations	(0.222)	26.5%	
Income (loss) of non-controlling shareholders	(0.352)	15.4%	(0.406)
Net Income attributable to controlling shareholders	**30.070**	**25.8%**	**37.814**

Year ended December 31, 2010, compared to the year ended December 31, 2011

Revenues

Net operating revenues were R$ 102.019 billion in 2011, compared with R$ 80.667 billion in 2010, an increase of 26.5% over 2010.

In 2011, the increase in revenues was basically due to the higher volume sold, which contributed to the increased revenues with R$ 17.981 billion.

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Iron ore

Revenues from sales of iron ore rose 28.1%, from R$ 47.643 billion in 2010 to R$ 61.035 billion in 2011, due to the 25.1% increase in the average sale price, and 3.1% in the volumes sold.

Pellets

Revenues from pellet sales increased 26.2%, from R$ 10.516 billion in 2010, to R$ 13.270 billion in 2011, due to the 14.4% variation in the average sale price for pellets and to the 15.0% increase in volumes sold.

Manganese ore and ferroalloy

Revenues from manganese and ferroalloy sales decreased 23.0%, from R$ 1.462 billion in 2010 to R$ 1.126 billion in 2011, due to the 32.3% drop in prices and the 7.8% fall in volumes sold, which was a function of the excess global stock. This was partially offset by the product mix, in case of manganese and due to 3.7% reduction in volumes sold and 11.7% in average price, reflecting market conditions in the case of ferroalloy.

Nickel and other products

There was a 68.4% increase in revenues from sales of these products, from R$ 8.075 billion in 2010, to R$ 13.596 billion in 2011, mainly due to (a) the higher volume of nickel sales (45.7%), as a function of the return following the temporary paralysis of operations of Sudbury and Voisey s Bay; and (b) the growth of 140.2% in copper volumes sold, as a function of the return to normality of our operations, previously mentioned, which was partly offset by the 4.72% drop in the average sale price.

Copper

Revenues from sales of copper concentrate increased 18.8% from R$ 1.551 billion in 2010, to R$ 1.842 billion in 2011.

Potash

Revenues from potash sales decreased 0.9%, from R$ 461 million in 2010, to R$ 457 million in 2011, due to the 17.1% drop in volumes sold, which was partly offset by the increase in the average sale price.

Phosphate

Revenues from phosphate sales increased 95.4%, from R$ 1.995 billion in 2010, to R$ 3.898 billion in 2011, reflecting the acquisition of Vale Fosfatados (previously Bunge Participações e Investimentos S.A.) and of Vale Fertilizantes (previously Fertilizantes Fosfatados S.A. Fosfertil).

Nitrogen

Sales revenues from nitrogen increased 125.4%, from R$ 504 million in 2010, to R$ 1.136 billion in 2011, reflecting the acquisition of Vale Fosfatados and Vale Fertilizantes. The phosphate and nitrogen products were included in the accounting records for the first complete year after the acquisition in 2010. The numbers reported in 2010 reflect the financial result in the period from May to December 2010.

Logistics services

Revenues from logistics services reduced by 11.8% from R$ 2.117 billion in 2010, to R$ 2.367 billion in 2011.

Other products and services

Revenues from other products and services decreased in 16.7%, dropping from R$ 691 million in 2010 to R$ 805 million in 2011.

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Costs of Products and Services

Costs related to services and goods sold by Vale are detailed below:

Comments on Cost by Type of Product

The total cost of products and services totaled R$ 42.451 billion in 2011, compared with R$ 34.166 billion in 2010, an increase of 24.2%. The impact was mainly due to: (a) higher volumes sold; (b) return of basic metals operations in Canada; (c) consolidation of fertilizer assets (included in the results for the first complete year); and (d) the costs referring to the operations of Onça Puma.

• Outsourced services. The cost of outsourced services increased 51.0% in 2011, from R$ 4.706 billion in 2010, to R$ 7.107 billion in 2011, reflecting in part the entry into operation of Onça Puma.

• Materials costs. Materials costs increased by 24.1% in 2011, from R$ 5.056 billion in 2010, to R$ 6.276 billion in 2011.

• Costs of energy and fuels. Energy costs decreased 2.2% in 2011, from R$ 5.300 billion in 2010 to R$ 5.184 billion in 2011.

• Personnel costs. Personnel costs increased 48.3%, from R$ 3.552 billion in 2010, to R$ 5.269 billion in 2011, reflecting the return of activities at Sudbury and Voisey s Bay, and the 8.6% adjustment of salaries paid in Brazil.

• Acquisition of products. The cost of products purchased from third parties increased 39.7%, from R$ 2.783 billion in 2010, to R$ 3.887 billion in 2011, mainly due to the increase in the price of pellets.

• Depreciation and depletion. The cost of depreciation and depletion increased 35.3%, from R$ 4.420 billion in 2010, to R$ 5.980 billion in 2011, mainly reflecting the acquisition of fertilizer assets.

• Other costs. Other costs increased 4.8%, from R$ 8.349 billion in 2010 to R$ 8.748 billion in 2011.

Sales and administrative expenses

Sales and administrative expenses increased 32.2%, rising from R$ 3.015 billion in 2010 to R$ 3.985 billion in 2011. The increase is due to consolidation of the fertilizer assets, operations at Onça Puma, and the 8.6% increase in salaries due to the collective bargaining agreement of the Company s Brazilian employees.

Research and development expenses

Research and development expenses grew 83.4% over 2010, rising from R$ 1.539 billion in 2010 to R$ 2.822 billion in 2011. The increased research occurred mainly in to the segments of bulk materials and basic metals.

Other operating costs and expenses

Other operating expenses increased from R$ 4.007 billion in 2010, to R$ 4.836 billion in 2011, an 20.7% increase, due to the provision for contingencies and pre-operating expenses of VNC, Onça Puma, Moatize and Rio Colorado.

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Result from sale of assets

In 2010 the company did not have results from asset sales, and in 2011, it had revenues of R$ 2.492 billion due to the sale of aluminum assets.

Result from Corporate Participations

The result from corporate participations in non-controlled companies dropped 5.4% reducing revenue from R$ 1,962 billion in 2010 to R$ 1.857 billion in 2011.

Net Financial result

The financial result varied 124.4%, expenses increased from R$ 2.831 billion in 2010, to R$ 6.352 billion in 2011. The main factor contributing to the negative result was the increase in the monetary and exchange rate variations recorded in 2011 on the company s loans.

Income Taxes and Social Security Contributions

2011 recorded a tax expense on net income of R$ 8.514 billion, compared to R$ 6.437 billion in 2010, basically due to the higher tax base.

Net income

The 25.8% increase in net income, from R$ 30.070 billion in 2010 to R$ 37.814 billion in 2011, was mainly due to the factors explained above.

Analysis of equity accounts

In R$ millions	**2010**	**Variation %**	**2011**
Assets			
Current Assets			
Cash and cash equivalents	12.636	(47.8)	6.593

Short-term investments	2.987	n.m.	
Derivatives at fair price	87	1,178.2	1.112
Accounts Receivable	13.681	16.1	15.889
Related parties	160	(3.8)	154
Inventory	7.161	37.3	9.833
Taxes to be refunded	2.671	56.9	4.190
Advances to suppliers	313	134.2	733
Others	1.010	63.1	1.647
Non-current assets held for sale	11.877		
	52.583	**(23.6)**	**40.151**
Non-current			
Related Parties	48	1,783.3	904
Loans and financing	273	46.2	399
Advanced expenses			
Legal deposits	2.884	(5.2)	2.735
Income tax and social sec. payments deferred	2.263	56.4	3.539
Taxes to be refunded	601	82.5	1.097
Derivatives at fair price	502	(77.7)	112
Deposit for incentives and reinvestment	238	80.3	429
Others	788	39.0	1.095
	7.597	**39.0**	**10.310**
Investments	**7.321**	**104.7**	**14.984**
Intangibles	**16.829**	**5.7**	**17.789**
Fixed Assets	**126.656**	**21.5**	**153.855**
	158.403	**24.3**	**196.938**
Total Assets	**210.986**	**12.4**	**237.089**

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Liabilities and shareholders equity			
Current liabilities			
Accounts Payable to suppliers and contractors	5.928	49.3	8.851
Salaries and employment taxes	1.889	29.3	2.442
Derivatives at fair price	58	134.5	136
Portion of long-term current loans	4.707	(40.4)	2.807
Loans and financing	232	(82.8)	40
Related Parties	35	22.9	43
Taxes, contributions and royalties	440	122.5	979
Income tax provision	1.251	(23.7)	955
Pension and retirement benefits	313	1.0	316
Subconcessions payable	125	1.6	
Provision for asset retirement			123
Dividends and interest on own capital	8.068	72.6	2.207
Others	1.582	4.3	1.650
	24.628	**(16.0)**	**20.685**
Liabilities related to non-current assets held for sale	5.340		
	29.968	**(31.0)**	**20.685**
Non-current liabilities			
Derivatives at fair price	102	1,114.7	1.239
Loans and financing	35.978	11.8	40.225
Related Parties	3	5,600.0	171
Pension and retirement benefits	3.337	(14.7)	2.846
Contingency Provisions	3.409	(7.7)	3.145
Income tax and social sec, deferred payments	12.828	(17.3)	10.614
Provision for asset retirement	2.404	42.6	3.427
Participation Debentures	2.139	16.7	2.496
Non-controlling shareholders redeemable share	1.186	(20.5)	943
Others	3.306	39.7	4.617
	64.692	**7.8**	**69.723**
Shareholders Equity			
Class A preferred shares - 7,200,000,000 authorized shares with no nominal value and 2,108,579,618 (2010 2,108,579,618) issued	19.650	50.0	29.475
Common shares 3,600,000,000 authorized shares, no nominal value and 3,256,724,482 (2009 3,256,724,482) issued	30.350	50.0	45.525
Mandatorily convertible securities into common shares	445	(19.1)	360
Mandatorily convertible securities into preferred shares	996	(20.1)	796
Treasury shares 181,099,814 preferred shares (2010 99,649,571) and 86,911,207 common shares (2010 47,137,394)	(4.826)	105.5	(9.917)
Operating results with non-controlling shareholders	685	(110.4)	(71)
Result from share conversion/issuance	1.867		
Equity valuation adjustment	(25)	980.0	220
Accumulated conversion adjustment	(9.512)	(89.3)	(1.017)
Profit reserves	72.487	7.8	78.105
Accumulated profits			
Total controlling shareholders equity	112.117	28.0	143.476
Non-controlling shareholders interest	4.209	(23.6)	3.205
Total equity	**116.326**	**26.1**	**146.681**
Total liabilities and equity	**210.986**	**12.4**	**237.089**

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Position on December 31, 2010 compared with the position on December 31, 2011

Vale has assets and debts referenced to different currencies, the main ones being the *real*, the US dollar and the Canadian dollar. On December 31, 2011, the company had 57% of its assets related to Brazilian *reais*, 8% to US dollars, 29% to Canadian dollars and 6% to other currencies, while the majority of our debt was expressed in US dollars. Consequently, the effects of changes in exchange rates had an impact on the financial statements, especially the depreciation of the *real* by 12.6% against the US dollar.

Current Assets

Cash and cash equivalents.

The 47.8% reduction, dropping from R$ 12,636 billion on December 31, 2010 to R$ 6.593 billion on December 31, 2011, occurred as a function of: (a) dividend distribution and the share repurchase program; (b) disbursement to pay the social contribution on net income (CSLL); and (c) acquisition of 100% of Vale Fertilizantes.

Short-term investments.

No short-term investments were reported on December 31, 2011, while on December 31, 2010 R$ 2.987 billion were reported.

Derivatives at fair value

The increase in derivatives at fair value of 1,114.7%, rising from R$ 87 million on December 31, 2010 to R$ 1.112 billion on December 31, 2011, essentially refers to the drop in the CDI, which is the index for most of the company s swaps that protect the debt flow in *reais*.

Accounts receivable from customers.

The increase of 16.1%, rising from R$ 13.681 billion on December 31, 2010, to R$ 15.8889 billion on December 31, 2011, refers mainly to the increase in sales over 2010.

Inventories

The 37.3% increase in inventories, rising from R$ 7.161 billion on December 31, 2010 to R$ 9.833 billion on December 31, 2011, refers mainly to the significant increase in production, including new operations.

Taxes to recover or offset

The 56.9% increase in taxes to recover or to offset, rising from R$ 2.671 billion to R$ 4.190 billion, refers to the revision of the PIS/COFINS calculation, by virtue of a change in the legislation.

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Non-current assets held for sale

In 2010, asset sales totaled R$ 11.877 billion, referring to sales of aluminum and kaolin assets. There was no execution in 2011.

Non-current assets

Related Parties

The increase of R$ 48 million in this item at December 31, 2010, to R$ 904 million on December 31, 2011, basically refers to inclusion of the company Norsk Hydro ASA (to which Vale transferred aluminum assets and received a shareholder stake) as a related party.

Deferred income tax and social contribution

The increase in the deferred income tax and social contribution of 56.4%, rising from R$ 2.263 billion on December 31, 2012 to R$ 539 billion on December 31, 2011, was due to the exchange rate variation on the added value linked to the investment in the nickel area.

Taxes to recover or offset

The increase in taxes to recover or offset of 82.5%, which rose from R$ 601 million on December 31, 2012 to R$ 1.097 billion on December 31, 2011, refers to the ICMS on operations that were stopped for part of 2010.

Derivatives at fair price

The 77.7% reduction in derivatives at fair price, which dropped from R$ 502 million on December 31, 2010 to R$ 112 million on December 31, 2011, basically refers to the mark to market of derivative swap operations denominated in *reais*, due to depreciation of the *real* against the US dollar.

Investments

The 104.7% increase in investments, from R$ 7,321 billion on December 31, 2010 to R$ 14.984 billion on December 31, 2011, mainly reflects the consolidation of Norsk Hydro.

Fixed assets

The 21.5% increase in fixed assets, rising from R$ 126.656 billion on December 31, 2010 to R$ 153.855 billion on December 31, 2011, occurred due to projects in the iron ore, nickel and logistics segments.

Current liabilities

Accounts payable to suppliers and contractors

The 49.3% increase in accounts payable to suppliers and contractors, rising from R$ 5.928 billion on December 31, 2010, to R$ 8.851 billion on December 31, 2011, was basically due to the increase in Vale s projects.

Portion of liabilities of long-term loans

The 40.4% reduction in the portion liabilities of long-term loans, dropping from R$ 4.707 billion on December 31, 2010, to R$ 2.807 billion on December 31, 2011, was due to maturities during the year.

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Derivatives at fair value

The increase in derivatives at fair value was 134.5%, rising from R$ 58 million on December 31, 2010, to R$ 136 million on December 31, 2011, basically due to the appreciation of the dollar against the *real*, which is the index for the majority of the company s swaps that protect the flow of debt.

Dividends and interest on own capital

Proposed dividends and interest on own capital decreased 72.6%, falling from R$ 8.068 billion in 2010, to R$ 2.207 billion in 2011, due to advances for the year 2011 made in August and October of that year. The balance of R$ 2.207 billion remained for payment of the dividends proposed by Vale in 2012.

Liabilities related to non-current assets held for sale

Liabilities related to non-current assets held for sale were R$ 5.340 billion in 2010, due to the payment of commitments linked to assets made available for sale of the assets in the aluminum segment and the kaolin companies. There was no execution in 2011.

Non-current liabilities

Loans and financing

The increase in loans and financing was 11.8%, rising from R$ 35.978 billion on December 31, 2010, to R$ 40.225 billion on December 31, 2011, reflecting the exchange rate variation on the debt.

Derivatives at fair value

The increase in derivatives at fair value was 1,102.9%, from R$ 102 million on December 31, 2010, to R$ 1.239 billion on December 31, 2011, basically due to the appreciation of the dollar against the *real*, which is the index for the majority of the company s swaps that protect the flow of debt.

Provisions for contingencies

Provisions for contingencies fell 7.7%, from R$ 3.409 billion on December 31, 2010, to R$ 3.145 billion on December 31, 2011, due to the payment of contingencies.

Deferred Income tax and social security contribution

In 2011, the deferred income tax and social contribution fell 17.3%, from R$ 12.828 billion in 2010, to R$ 10.614 billion, due to payment of the CSLL.

Provision with obligations for asset retirement

The increase of 42.6%, from R$ 2.404 billion on December 31, 2010 to R$ 3.427 billion on December 31, 2011, was due to the annual review of the estimates.

Shareholder Debentures

The 16.7% increase of shareholder debentures, from R$ 2.139 billion on December 31, 2010 to R$ 2.496 billion on December 31, 2011, refers to mark to market.

Shareholders Equity of Controlling Shareholders

The shareholders equity of the controlling shareholders increased by 28.0%, rising from R$ 112.117 billion on December 31, 2010, to R$ 143.476 billion on December 31, 2011. The increase in the profit reserves came from withholdings on net income.

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Analysis of Cash Flow 2012 x 2011

The following table shows the values related to the consolidated cash flow statements for the years ended December 31, 2011 and December 31, 2012:

	2012	%	2011
Operating cash flow			
Year s net revenues	9,233	(75.3)	37,408
Adjustments to consolidate the year s net revenues with operating revenues	23,848	945.5	2,281
Operating net revenues	33,081	(16.6)	39,689
Investments net revenues	(30,093)	38.9	(21,665)
Financing net revenues	2,240	109.4	(23,694)
Cash and cash equivalents increase (reduction)	5,228	(192.2)	(5,670)
Beginning of the year cash and cash equivalents increase	6,593	(47.8)	12,636
Effect of exchange rate variations on cash and cash equivalents	97	126.0	(373)
Merged company s cash and cash equivalents			
End of the year cash and cash equivalents	11,918	80.8	6,593

Year ended on December 31, 2011, compared to the year ended on December 31, 2012

Net Operating Revenues

Net operating revenues were R$ 33.081 billion in 2012, compared with R$ 39.689 billion in 2012, a drop of 16.6% over 2011, mainly due to reduction in the company s operating results.

Net Operating Revenues (used in) investment

Net revenues used in investments reached R$ 30.093 billion in 2012, relative to R$ 21.665 billion in 2011, an increase of 38.9% relative to 2011, due mainly to new projects.

Net Operating Revenues (used in) financing

Net revenues used in/from financing reached R$ 2.240 billion in 2012, relative to R$ 23.694 billion in 2011, an increase of 109.4% relative to 2011, due to a higher volume of investments made in 2012.

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Analysis of Cash Flow 2011 x 2010

The following table shows the values related to the consolidated cash flow statements for the years ended December 31, 2010 and December 31, 2011:

	2011	%	2010
Operating cash flow :			
Year s net revenues	37,408	23.0	30,422
Adjustments to consolidate the year s net revenues with operating revenues	2,281	131.1	987
Operating net revenues	39,689	26.4	31,409
Investments net revenues	(21,665)	(31.4)	(31,585)
Financing net revenues	(23,694)	456.7	(4,256)
Cash and cash equivalents increase (reduction)	(5,670)	331.2	(1.315)
Beginning of the year cash and cash equivalents increase	12,636	(4.9)	13,291
Effect of exchange rate variations on cash and cash equivalents	(373)	(156.5)	660
Merged company s cash and cash equivalents			
End of the year cash and cash equivalents	6,593	(47.8)	12,636

Year ended on December 31, 2010, compared to the year ended on December 31, 2010

Net Operating Revenues

Net operating revenues were R$ 39.689 billion in 2011, compared with R$ 31.409 billion in 2011, an increase of 26.4% over 2010, mainly due to reduction in the company s operating results, partially offset by the CFEM payment.

Net Operating Revenues (used in) investment

Net revenues used in investments reached R$ 21.665 billion in 2011, relative to R$ 31.585 billion in 2010, a drop of 31.4% relative to 2010, due mainly to the purchase of the fertilizer company.

Net Operating Revenues (used in) financing

Net revenues used in/from financing reached R$ 23.694 billion in 2011, relative to R$ 4.256 billion in 2010, an increase of 456.7% relative to 2010, was due to payments made to controllers as dividends and interest over own capital.

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10.2 Operating and Financial Results

a) Results of Vale Operations, in particular:

i. Description of key components of revenue

Net operating revenues totaled R$ 93.511 billion in 2012, dropping 8.3% relative to the R$ 102.019 billion in 2011, and a 26.5% increase relative to the R$ 80.677 billion in 2010.

Individually, the most important products in terms of revenue generation in 2012, 2011, and 2010 were: iron ore, pellets, and nickel.

REVENUES BY PRODUCT

R$ million	2010	%	2011	%	2012	%
Bulk materials	**60,940**	**75.5**	**77,226**	**75.7**	**68,901**	**73.7**
Ferrous minerals	**59,621**	**73.9**	**75,431**	**73.9**	**66.792**	**71.4**
Iron ore	47,643	59.1	61,035	59.8	52,959	56.6
Pellet plant operation services	22		63	0.1	35	
Pellets	10,494	13.0	1,.207	12.9	12,743	13.6
Manganese and ferroalloys	1,388	1.7	1,118	1.1	1,055	1.2
Others	74	0.1	8			
Coal	**1,319**	**1.6**	**1,795**	**1.7**	**2,109**	**2.2**
Thermal Coal	505	0.6	1,005	1.0	486	0.5
Metallurgical Coal	814	1.0	790	0.7	1,623	1.7
Basic metals	**13,949**	**17.3**	**16,070**	**15.8**	**13,933**	**14.9**
Nickel	6.698	8.3	9,552	**9.4**	8,076	8.6
Copper	2.578	3.2	4,355	4.3	4,257	4.5
PGMs	174	0.2	707	0.7	744	0.8
Precious metals	124	0.1	678	0.7	700	0.8
Cobalt	52	0.1	146	0.1	156	0.2
Primary aluminum	1,674	2.1	235	0.2		
Alumina	2,465	3.1	387	0.4		
Bauxite	184	0.2	10			
Fertilizers	**2,980**	**3.6**	**5,551**	**5.4**	**7,008**	**7.5**
Potash	461	0.6	457	0.5	569	0.6
Phosphates	1,995	2.4	3.898	3.8	4,926	5.3
Nitrogen	504	0.6	1,136	1.0	1,366	1.5
Others	21		60	0.1	147	0.1
Logistics services	**2,108**	**2.6**	**2,878**	**2.3**	**2,710**	**2.9**
Railroads	1,584	2.0	1,682	1.6	**1,828**	2.0

Ports	524	0.6	685	0.7	**882**	0.9
Others	**699**	**1.0**	**805**	**0.8**	**959**	1.0
Net Revenues	**80,677**	**100.0**	**102,019**	**100.0**	**93,511**	**100.0**

In 2012, sales to Asia represented 55.8% of total revenues, in line with the 55.5% of 2011 and the 56.2% reported in 2010. Sales to the Americas amounted to 23.4%, also in line with the 22.6% reported in 2011

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and the 22.0% reported in 2010, mainly due to the increase in sales to the United States and Brazil. Revenues from Europe represented 17.3% in 2012, a reduction relative to the 18.7% in 2011, and 19.0% for 2010, while the remainder contributed with 3.5% of the 2012 revenues.

Considering sales per country, China was responsible for 37.1% of our revenues in 2012, followed by Brazil with 16.8%, Japan with 10.3%, Germany with 6.1%, South Korea with 4.4% and the United States with 2.7% in 2012.

REVENUES BY REGION

R$ million	2010	%	2011	%	2012	%
North America	**3,295**	**4.1**	**5,347**	**5.2**	**4,625**	**4.9**
USA	1,423	1.8	2,797	2.7	2,593	2.7
Canada	1,756	2.1	2,361	2.3	1,973	2.1
Others	116	0.2	189	0.2	59	0.1
South America	**13,656**	**16.9**	**17,712**	**17.4**	**17,256**	**18.5**
Brazil	12,034	14.8	15,881	15.5	15,740	16.8
Others	1,622	2.1	1,831	1.9	1,516	1.7
Asia	**45,342**	**56.2**	**56,655**	**55.5**	**52,208**	**55.8**
China	29,228	36.3	35,982	35.3	34,684	37.1
Japan	8,967	11.1	12,164	12.0	9,609	10.3
South Korea	3,134	3.9	3,651	3.6	4,103	4.4
Taiwan	2,023	2.5	2,174	2.1	1,755	1.9
Others	1,989	2.5	2,684	2.5	2,058	2.1
Europe	**15,313**	**19.0**	**19,142**	**18.7**	**16,181**	**17.3**
Germany	5,289	6.6	6,384	6.2	5,717	6.1
France	1,264	1.6	1,338	1.3	1,300	1.4
United Kingdom	1,938	2.4	2,259	2.2	1,954	2.1
Italy	1,729	2.1	3,192	3.1	2,539	2.7
Others	5,093	6.3	5,969	5.9	4,672	5.0
Rest of the World	**3,071**	**3.8**	**3,163**	**3.2**	**3,239**	**3.5**
Gross Revenues						
Taxes						
Net Revenues	**80,677**	**100.0**	**102,019**	**100.0**	**93,511**	**100.0**

ii. Factors that materially affected the operating results

Vale s operating result is mainly affected by demand, which impacts the prices of our principal products, and it is also affected by exchange rates.

Demand and prices

The following table summarizes the average sale price of the main products for the periods indicated.

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	20010	2011	2012
	$/metric ton, unless otherwise indicated(9)		
Iron ore	182.09	227.86	207.29
Pellets	283.76	324.53	289.93
Manganese	405.03	277.49	264.51
Ferroalloys	2,723.11	2,416.46	2,577.05
Coal			
Thermal coal	123.85	160.00	155.19
Metallurgical Coal	263.82	394.00	333.61
Nickel	38,669.75	37,781.39	34,660.94
Copper	13,599.55	14,101.35	14,849.08
Platinum (US$ /oz)	2,922.55	2,875.03	3,110.15
Cobalt (US$ /lb)	26.55	26.17	23.98
Aluminum	3,837.07		
Alumina	498.92		
Bauxite	55.66		
Potash	722.30	846.14	1,037.87
Phosphates			
MAP	994.60	1,138.14	1,264.06
TSP	794.85	981.30	1,029.63
SSP	389.44	471.46	525.07
DCP	987.79	1,138.13	1,228.44
Nitrogen	793.16	1,024.87	1,167.15

Iron ore and pellets

The demand for iron ore and pellets is a result of the global demand for carbon steel, which in turn is highly influenced by global industrial production. The pricing of iron ore and pellets is done according to several levels of quality and physical characteristics. Several factors affect the prices of different types of iron ore, such as the iron content in deposits, the size of particles, humidity and the type and concentration of contaminants (such as phosphorus, alumina and manganese) in the ore. Generally, the classification of ore into thin ore, lump ore and pellet feed determines price differences.

Demand from China has been one of the main drivers of worldwide demand and prices.

Chinese imports of iron ore reached 745.5 million metric tons in 2012, 8.5% above the 687.0 million metric tons from 2011, and 20.4% above the 2010 imports, due mainly to the solid growth of Chinese steel production in 2012.

It is expected that China s growth will remain strong in 2013, driven mainly by domestic demand.

Our iron ore prices are grounded in a variety of price option that are usually based on spot indices for the specification of prices charged to clients. In 2012, there was a significant change in our iron ore quarterly pricing agreements, which uses the average price indices for the three months of the current quarter to use the pricing options based on spot. This change exposes us to a greater pricing volatility, but it allows us to obtain greater value by bringing our point of sales closer to the Asian markets.

Fine iron ore prices command premiums as a function of the content of iron. The lump ore and pellet prices contain premiums in relation to fine iron ore prices and are determined based on client negotiations. The average prices for iron ore in 2012 were 17.0% lower than the average prices in 2011, and 3.9%

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(9) Amounts converted using the average exchange rate in each period: R$ 1.7593/US$ in 2010, R$ 1.6746/US$ in 2011, and R$ 1.9550 in 2012.

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higher than 2010. The average price for pellets was 11.2% lower than prices in 2011, and 1.5% lower than the average price in 2010.

Manganese and ferroalloys

The prices of manganese ore and ferroalloys are mainly influenced by trends in the carbon steel market. The prices of ferroalloys are also influenced by the prices of its main inputs, such as manganese ore, energy and coke. Manganese ore sales are based on the spot market or calculated on a quarterly basis. Ferroalloys prices are determined on a quarterly basis.

Coal

The demand for metallurgical coal is driven by the demand for steel, especially in Asia. The demand for thermal coal is directly related to electricity consumption, which will continue to be driven by worldwide economic growth, especially in emerging economies. Since April 2010, the prices for metallurgical coal have been established on a quarterly basis for most volumes sold in the transoceanic market, while some players are selling it on a quarterly basis, and a minority continues to use annual pricing. The prices of thermal coal are set in spot negotiations and/or through annual contracts.

Nickel

Nickel is traded on the London Metal Exchange (LME), and it is mainly used to produce stainless steel. Most nickel products are priced using a discount or a premium to the LME price, depending on the technical and physical characteristics of the product. Nickel demand is heavily affected by production of stainless steel, which represents 63-66% of consumption.

Vale has short-term fixed-volume contracts with customers for the majority of our expected annual nickel sales. These contracts, together with its sales of nickel products to be used for other purposes (high nickel alloys, steel alloys, forging, plating, batteries and special applications), provide stable demand for a significant portion of its annual production. In 2012, 67% of the refined nickel sales were destined to applications outside the stainless steel industry. This, when compared to the industry average of 34% among nickel producers, results in its sales volume being more stable. As a result of its focus on such higher-value segments, the average realized nickel prices have typically exceeded LME prices.

Primary nickel (including iron-nickel, pig iron nickel and nickel cathode) and secondary nickel (scrap) are nickel s main competitors for stainless steel production. The choice between the different types of primary and secondary nickel is largely driven by its relative prices and availability. In recent years, secondary nickel accounted for about 41-46% of the overall nickel used in stainless steel production, and primary nickel accounted for 54-59%. In 2012, the Chinese nickel pig iron production and iron-nickel production was estimated to have been higher than 330,000 metric tons, representing 18% of the global supply of primary nickel, compared to 16% in 2011 and 11% in 2010.

Copper

Copper prices are determined on the basis of: (a) copper prices in final markets, such as the LME and the NYMEX; and (b) for intermediate products, such as copper concentrate (which represents the majority of the company s sales) and copper anode, treatment and refining rates are negotiated with each client. According to a pricing system known as MAMA (month after month of arrival), sale prices of copper concentrate and anode are provisionally set at the time of shipment, and the final prices are based on the LME at a future time, typically three months after shipment of product.

Aluminum

In February 2011, most of the company s aluminum business was transferred to Norsk Hydro ASA (Hydro) and, in turn, the Company now has 22% of Hydro s capital, an aluminum production company

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headquartered in Norway. Prior to the transaction, Vale s aluminum sales were conducted using prices based on LME s previous month prices. Alumina sales were based on a percentage of the LME s aluminum price and bauxite prices were determined using a formula linked to the aluminum price from 3 month future contracts in the LME, and the alumina FOB Australia price.

Fertilizers

The demand for fertilizers depends on the same market fundamentals as those for global demand for minerals, metals and energy. The rapid *per capita* growth of emerging economies causes changes in food, marked by an increase in the consumption of proteins, which contributes to higher demand for fertilizers. Demand is also driven by biofuels that are emerging as an alternative source of energy to reduce global dependency on greenhouse gases [sic], and essential raw materials for the production of biofuels sugar cane, corn and palm which are intensively used in fertilizers.

Fertilizers are sold in the market mainly on a cash basis using international reference prices, although certain large importers, such as China and India, often sign annual contracts. Seasonality is an important factor for determining price throughout the year, given that agricultural production in each region depends on the climactic conditions of the harvest.

Logistics

Demand for our transportation services in Brazil is primarily driven by Brazilian economic growth, mainly in the agricultural and steel sectors. The logistics revenues are primarily from fees charged to customers for the transportation of cargo using Vale s railroads, ports and ships. The Company s railroads account for most of this revenue. Nearly all of the company s logistics revenues are expressed in Brazilian *reais* and are subject to adjustments triggered by changes in fuel prices. Prices in the Brazilian market for railroad services are subject to ceilings set by the Brazilian regulatory authorities, but they primarily reflect competition with the trucking industry.

Exchange Rates

The impact of exchange rate variations on Vale s operational results are described in item 10.2 (b) of this Reference Form.

b. Variations in revenues attributable to changes in prices, exchange rates, inflation, changes in volumes and the introduction of new products and services

Exchange rate variations

Most of the Company s revenues are expressed in US dollars, whereas most of our costs of goods sold are expressed in other currencies, mainly the Brazilian *real* (57% in 2012), the US dollar (24% in 2012), Canadian dollars (15% in 2012), Indonesian rupees, Australian dollars, the euro, and others(10). As a result, changes in exchange rates affect the Company s operating margin.

Most of our long-term debt is expressed currencies other than the Brazilian real, mainly in American dollars (R$ 43.431 billion on December 31, 2012). Due to the fact that Vale s functional currency is the Brazilian *real*, changes in the value of the US dollar against the Brazilian *real* result in exchange gains or losses on our net liabilities, which, in turn, affect our financial results.

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(10) Composition of the CPV by currency in 2009 was: 69% in *reais*, 15% in US dollars, 11% in Canadian dollars, 2% in Australian dollars and 3% in other currencies. In 2011, CPV composition was: 59% in *reais*, 20% in US dollars, 15% in Canadian dollars, 2% in Australian dollars, and 4% in other currencies.

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On December 31, 2012 our debt expressed in *reais* was R$ 17.552 billion. Since most of our revenue is in US dollars, Vale uses derivatives to convert our debt from Brazilian *reais* to US dollars. As a consequence of the depreciation of the Brazilian *real* against the US dollar in 2012, the net exchange rate and monetary variation caused a negative impact on our net profits of R$ 4.144 billion in 2012. The net result of the currency and interest rate swaps, structured mainly to convert the debt expressed in Brazilian *reais* into US dollars to protect our cash flow from currency price volatility, produced a negative accounting effect of R$ 280 billion in 2012, of which R$ 956 million generated a positive impact on the cash flow.

Variations in the inflation rates

The company s revenues are not significantly affected by inflation rates.

Variations attributable to price changes, volume changes and the introduction of new products and services

Vale s operating revenue is directly affected by changes to its products prices and services, as well as by changes to the volumes sold, as discussed in item 10.2(a)(ii) of this Reference Form.

Fertilizers

The fertilizers segment, whose activities were substantially increased in 2010 with the acquisition of Vale Fosfatados and Vale Fertilizantes, had the following effects on the Company s results: contribution of R$ 7.008 billion to our 2012 net income in 2012 (R$ 5.551 billion in 2011 and R$ 2.980 billion in 2010), and contribution in the cost of R$ 5.854 billion in 2012 (R$ 4,512 billion in 2011 and R$ 2.792 billion in 2010).

c. Impact of inflation, price variations of main inputs and products, exchange rate and interest rates on operating results and the issuer s financial result

For comments on the inflationary impact, price variations in the main products and exchange rates, see item 10.2 (b) of this Reference Form.

Vale exposed to the risk of interest rates for loans and financings. Debt tied to interest rates in US$ consists mainly of loans, including export prepayment operations, loans from commercial banks and multilateral organizations. In general, these debts are indexed to the LIBOR (London Interbank Offered Rate). The natural hedge between US interest rate fluctuations and prices of metals mitigates the volatility of the Company s cash flow. In the event of an imbalance in this natural hedge, Vale assesses the possibility of contracting financial instruments to provide the desired protection. The floating rate of its debt expressed in Brazilian *reais* includes debentures, loans obtained from the BNDES, fixed assets and financing for the purchase of services in the Brazilian market. The interest on these obligations is tied primarily to the CDI (Interbank Deposit Certificate), the reference interest rate on the Brazilian interbank market and the TJLP (long-term interest rate). Approximately 27.0% of the debt on December 31, 2012 was in reais, and the additional 73.0% in other currencies. About 30% of the debt at December 31, 2011 was expressed in Brazilian *reais*, the remaining 70% was expressed in other currencies. On December 31, 2010, 27% of the debt was expressed in *reais*, and 73% was in other currencies. Nearly 45.3% of the debt was tied to the floating interest rate on December 31, 2012, relative to 24% on December 31, 2011 and 53% on December 31, 2010.

Energy costs are an important component of our production cost and represented 11% of our total cost of products sold in 2012, 12.2% in 2011, and 15.5% in 2010. Increases in the price of oil and gas negatively impact our logistics, mining, pellets and nickel businesses. Electricity costs were 3.2% of the total cost of products sold in 2012, 3.6% in 2011, and 6.1% in 2010.

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10.3 Relevant effects on Financial Statements

The impairment registered in 2012 resulted in a loss of about R$ 8.211 billion. This amount refers to the Company s assets recoverable value, based on the premise that includes the discounted cash flow and the commodities price.

In certain contracts, the Company takes risks related to the transport of products and it negotiates the freight price directly to the client. However, in these contracts, in 2011 and 2010, the main portion of the iron ore and pellets CFR (international contract for cost and freight) related freights was registered as though Vale were the operating agent, resulting in the presentation of freight net revenues. Vale revised the statement of the 2011 and 2010 results to adequately reflect the revenues of such sales by the total value charges to clients. Consequently, it showed a freight cost related to this operation as a sold product cost and, thus, increased iron ores and pellets sales in 2011 in the amount of R$ 3,275 billion (R$ 3,054 billion in 2010), with the corresponding increase in the cost of sold minerals and metals. The revision did not lead to any other changes in the statement of the results.

The purchase of Vale Fosfatados and Vale Fertilizantes has had significant impacts on the Company s results: contribution of R$ 2.980 billion to our net income in 2010 and of R$ 2.792 billion to our costs. The remaining operations did not have relevant impacts on the Company.

Vale does not provide guidance regarding its future financial performance. Vale seeks to disclose as much information as possible about its views on the different markets where it operates, its strategic guidelines and implementation in order to give the capital markets a sound basis for their expectations regarding the Company s performance in the medium and long term.

a. Introduction or disposal of operating segment

In 2010, the fertilizer segment was introduced to Vale s operating segments, and its contribution to the Company s revenues was 3.6% in 2010, 4.0% in 2011, and 7,5% in 2012.

b. Incorporation, acquisition or divestiture of stakeholder positions

Main Acquisitions

2012

Assets leasing and potash mining rights

On April 23, 2012, Vale renewed with Petróleo Brasileiro S.A. (Petrobras) the contract renewal for assets leasing and potash mining rights in Sergipe for 30 years, allowing it to continue to explore the potash mine in Taquari-Vassouras and the development of the Carnalita project. When it begins to produce, it has been estimated that Carnalita will have the largest potash operation in Brazil, with an estimated production capacity of 1.2 million tons of potash per year. The contract is in line with Vale s growth strategy to become one of the global leaders in the fertilizer industry.

Continuing with its corporate structure optimization process, in the second quarter of 2012, Vale acquire more than 10.46% of participation in Empreendimentos Brasileiros de Mineração S.A. (EBM), whose main asset is the participation in the Minerações Brasileiras Reunidas S.A. (MBR), which owns the Ibarito, Vargem Grande, and Paraopeba mines.

As a result of this acquisition, Vale has increased its participation in EBM s capital to 96.7% and in MBR s to 98.3%, and the amount of R$ 450 million was known as the result of the operation with non-controlling shareholders in Net Equity.

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2011

Acquisition of control of Biopalma

In February 2011, Vale became the controller of Biopalma da Amazônia S.A. Reflorestamento Indústria e Comércio, in Pará, a producer of palm oil, which is used as a raw material in biodiesel production. The transaction value was R$ 173.5 million. Our goal is to use this fuel in Vale s operations in Brazil. Biopalma begins palm oil production in 2012, and it expects to reach annual production of 500,000 tons by 2019, when crops reach maturity. The main use of the oil will be on Vale s biodiesel production to fuel its locomotives, machines and equipment in large Brazilian operations, using B20 (a mixture containing 20% biodiesel and 80% common diesel).

Acquisition of stake in the Belo Monte Hydroelectric Plant

In June 2011, Vale purchased 9.0% of the capital of Norte Energia S.A. (NESA) for R$ 3.8 million, held by Gaia Energia e Participações S.A. (Gaia). NESA s exclusive purpose is to implant, operate and develop the Belo Monte Hydroelectric Plant located in Pará. Vale reimbursed Gaia for capital contributions made by Gaia in NESA, and it will assume the commitments for future capital contributions arising from the stakeholder position that was acquired (estimated to be R$ 2.3 billion). The acquisition is consistent with the strategy to reduce operating costs and to minimize energy prices and the risks of supply. At December 31, 2011, R$ 106 million had been contributed to NESA.

Increase of participation in SDCN

In June 2011, Vale purchased an additional 16% of participation in Sociedade de Desenvolvimento do Corredor Nacala S.A. (SDCN) for US$ 8 million (equivalent to R$ 12.8 million). The purchase was in line with the strategy to develop the logistic corridor of Nacala and was an extension of the purchase of 51% participation in SDCN in September 2010. SDCN has the concession to create the logistic structure necessary for the flow of production resulting from the expansion of coal production in Moatize. Vale will invest in the expansion of the capacity of the logistic corridor of Nacala by means of the rehabilitation of the existing railroads of the SDCN in Malawi and Mozambique, the construction of rail connections from Moatize to a new, deep-water marine terminal in Nacala, and the construction of the port of Nacala.

Agreement to explore the port facility concession in Santos

In July 2011, Vale signed an agreement to create a joint venture with Vale Fertilizantes in order to explore the Port Facility concession of Ultrafértil (TUF). The TUF is located in the city of Santos, in the state of São Paolo, and it moves imported loads of sulfur, ammonia and fertilizers in general. It is strategically interconnected to Vale s railroad network. It now holds 51% in the joint venture, which was acquired through the payment of R$ 150 million to Vale Fertilizantes, and it is contributing R$ 432 million in capital to the joint venture in order to finance the TUF s investment plan. The formation of the joint venture positions Vale to competitively meet the growth of agribusiness in Brazil. At the same time, investment in the TUF strengthens the logistics infrastructure of the fertilizer business, contributing to making its expansion in the coming years feasible.

Acquisition of shares in circulation of Vale Fertilizantes

In December 2011, Vale concluded the public offering to acquire the shares issued by Vale Fertilizantes in circulation in the market. As a result of this operation, Vale acquired 211,014 common shares, and 82,919,456 preferred shares issued by Vale Fertilizantes, which represent 83.8% of common shares and 94.0% of preferred shares of Vale Fertilizantes in circulation in the market, which corresponds to 0.1% of the total of common shares and 29.8% of the preferred shares of Vale Fertilizantes. Both the common and preferred shares were acquired at a price of R$ 25.00 per share, for a total of R$ 2.078 billion. On December 23, 2011, Vale Fertilizantes had its registration as an open company cancelled by the CVM.

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In January 2012, the General Extraordinary Shareholders Meeting of Vale Fertilizantes approved the redemption of the 5,314,386 shares remaining in circulation, both common and preferred, and representing 0.94% of the total shares of Vale Fertilizantes. Thus, through its controlled companies, Vale holds 100% of the total number of common shares, and 100% of the total of preferred shares of Vale Fertilizantes. The shares were redeemed at the share price offered in the public offering held on December 12, 2011 of R$ 25.00 (twenty-five *reais*) per share, plus interest calculated based on the SELIC rate, from the date of payment for the offering, on December 15, 2011, until the payment date for redemption of the shares, which date was January 26, 2012. Vale s and Vale Fertilizante s total disbursement was R$ 2.2 billion.

2010

Acquisition of iron ore assets in Africa

In April 2010, Vale acquired from BSG Resources Ltd. (BSGR) a 51% stake in BSG Resources (Guiné) Ltd., which holds concessions for iron ore in Guinea, Simandou South (Zogota) and exploration permits for Simandou North (Blocks I & II). Vale has paid US$ 2.5 billion for the acquisition of these assets - US$ 500 million in cash (equal to R$ 866 million on the disbursement date), and the remaining US$ 2 billion (R$ 3.388 billion) will be paid in installments subject to the fulfillment of specific goals. Simandou Blocks 1 & 2 and Zogota are among the best still-unexploited iron ore deposits in the world, with high quality and potential for the development of large-scale and long-term projects, at low operating and investment costs.

Acquisition of coal assets in Australia

In June 2010, Vale acquired additional holdings of 24.5% (equal to R$ 167 million) in the Belvedere (Belvedere) coal project for US$ 92 million from AMCI Investments Pty Ltd (AMCI). As a result of this transaction, Vale s interest in Belvedere increased from 51.0% to 75.5%. Belvedere is an underground coal mine project in the Bowen Basin region, near the town of Moura in Queensland, Australia. According to our preliminary estimates, when completed the Belvedere project will have the potential to produce up to 7.0 million metric tons of metallurgical coal per year.

Acquisition of assets of fertilizer

In line with the company s strategy of becoming a global leader in the fertilizer industry, in May 2010 we acquired 58.6% of the capital of Fertilizantes Fosfatados S.A. (Fosfertil), now Vale Fertilizantes S.A., as well as the Brazilian company Bunge Participações e Investimentos S.A. (BPI), now Vale fosfatados, for R$ 8.692 billion (equal to a price per share of US$ 12.0185 for Fosfertil shares and a total of US$ 1.7 billion for Bunge fertilizer assets). A payment of R$ 103 million was made in July to complement the price of Vale Fosfatados. In September, Vale acquired an additional 20.27% of Fosfertil s capital for R$ 1.762 billion (equal to a price per share of US$ 12.0185) and in December it announced the result of the public offering for the acquisition of the company s common shares held by minority shareholders.

Acquisition of stake in SDCN

In September 2010, Vale acquired 51% of Sociedade de Desenvolvimento do Corredor Norte S.A. (SDCN) for US$ 21 million (equal to R$ 37 million on the date of disbursement).SDCN has a concession to create the necessary logistics infrastructure to enable the flow of the production from the second phase of the Moatize coal project.

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Main investment disposals and asset sales

In accordance with the strategy, the Company continues to reduce our stakes in non-core assets. The following is a summary of the main disposals and sales of assets during the three-year period under discussion.

2012

Sale of CADAM Participation

On April 26, 2012, Vale signed an agreement to sell its participation in 61.5% of Cadam S.A. (CADAM) for US$ 30.1 million (equivalent to R$ 58.0 million), to KaMin LLC (a closed capital American company). CADAM produces kaolin and operated an open mine in the state of Amapá, a processing plant, and a private port, both in the state of Pará. The mine and the plant are interconnected via a 5.8 km pipeline. Vale will receive US$ 30.1 million for CADAM s share control, to be paid within five years. The transaction was concluded on May 7, 2012. CADAM s sale is part of the Company s continued efforts to optimize its assets portfolio. Together with the sale of Pará Pigmentos S.A. (PPSA), in 2010, CADAM s sale consolidates the kaolin sales business.

Sale of Colombia coal assets

On May 28, 2012, Vale signed an agreement to sell its thermal coal operations in Colombia to CPC S.A.A, a company affiliated to Colombia Natural Resources S.A.S. (CNR), a closed capital company, for US$ 407 million (equivalent to R$ 843 million) in cash, subject to regulatory approval. The sale was concluded on June 25, 2012.

The thermal coal operations in Colombia are an integrated mine-rail-port system consisting of: (a) 100% coal mine in El Hatillo and a coal deposit in Cerro Largo, both in Cesar s department; (b) 100% of the Sociedad Portuária Rio Córdoba (SPRC), a coal port operation on Colombia s Atlantic coast, and (c) 8.43% participation in the Ferrocarriles Del Norte de Colombia S.A. (FENOCO) railway, which holds concession and operation of the railway connecting the coal mines to SPRC.

Sale of manganese ferroalloy assets in Europe

On July 10, 2012, Vale signed an agreement to sell its manganese ferroalloy operations in Europe to Glencore Internacional Plc. Subsidiaries, a company listed in the London and Hong Kong stock markets, for US$ 160 million (equivalent to R$ 325 million) in cash, subject to the fulfillment of certain precondition. The manganese ferroalloy operations in Europe consist of: (a) 100% of Vale Manganese France SAS, located in Dunkirk, in France; and, (b) 100% of the Vale Manganese Norway AS, located in Mo I Rana, Norway. The sale was concluded on October 31, 2012.

Sale of marine transport assets

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

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

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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.

Sale of participation in oil and gas concession

On December 26, 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), 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.

2011

Sale of aluminum assets

In February 2011, Vale announced that it had concluded a transaction with Norsk Hydro ASA (Hydro), a company listed on the Oslo Stock Exchange and on the London Stock Exchange (ticker symbol: NHY) to transfer all of its stake in Albras Alumínio Brasileiro S.A. (Albras), Alunorte Alumina do Norte do Brasil S.A. (Alunorte) and Companhia de Alumina do Pará (CAP), along with their exclusivity rights, commercial contracts and net debt of US$ 655 million (equal to R$ 1.088 billion) for 22% of Hydro s common shares in circulation, after the issuance on February 28, 2011, and US$ 503 million in case (equal to R$ 836 million) after adjustments.

Vale also created a new company, Mineração Paragominas S.A. (Paragominas), and transferred the bauxite mine of Paragominas and all of its remaining bauxite mining rights in Brazil. As part of this transaction, Vale sold 60% of Paragominas to Hydro for US$ 578 million in cash (equal to R$ 960 million) after adjustments to working capital. The remaining parcel will be sold in two equal portions, three and five years after conclusion of the transaction, for US$ 200 million in cash, each.

According to the terms of the agreement, through its wholly owned subsidiaries, Vale transferred the following to Hydro: (a) 51% of the total capital of Albras; (b) 57% of the total capital of Alunorte; (c) 61% of the total capital of CAP; and it sold (d) 60% of the total capital of Paragominas.

Through its wholly owned subsidiaries, Vale subscribed 447,834,465 shares of Hydro, or 22% of the 2,035,611,206 shares in circulation, approximately US$ 3.5 billion (equal to R$ 5.866 billion) according to Hydro s closing price and the exchange rate NOK/US$ on February 25, 2011. According to the terms of the transaction, Vale cannot sell its shares for a two-year lock-up period, and it also may not increase its stake in

Hydro beyond the 22%.

2010

Sale of Valesul assets

In January 2010, the company s wholly owned subsidiary, Valesul Alumínio S.A., entered into an agreement to sell its aluminum assets for US$ 31.2 million (equal to R$ 56 million). Valesul s assets that are included in the agreement are located in the state of Rio de Janeiro and include the anode factory, reducer and smelter, as well as industrial, administrative and inventory services.

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Sale of kaolin assets

In the second quarter of 2010, Vale sold 86.2% of its stake in Pará Pigmentos S.A. (PPSA), as well as other kaolin mining rights in Pará. Assets were sold to Imerys S.A., a company listed on Euronext, for US$ 72 million (equal to R$ 127 million).

Sale of stake in the Bayóvar project

In July 2010, Vale completed the sale of its minority stake in the Bayóvar project in Peru by means of a newly incorporated company named MVM Resources International BV (MVM). Vale sold 35% of MVM s total capital to Mosaic for R$ 682 million, and 25% to Mitsui for R$ 487 million. Vale controls the Bayóvar project, holding 40% of the total capital and 51% of the voting capital of the newly incorporated company. Overall capital investments made by June 30, 2010 were approximately US$ 550 million (equal to R$ 932 million in September 2010). The difference between the fair value and book value in this transaction, totaling R$ 544 million, was accounted for in our shareholders equity as per gain/loss regulations applicable to when the control of a company is held.

Sale of stake in Vale Oman Pelletizing Company LLC

In May 2010, Vale entered into an agreement with Oman Oil Company S.A.O.C., a company controlled by the Sultanate of Oman, to sell 30% of Vale Oman Pelletizing Company LLC, for US$ 125 million (equal to R$ 212 million on September 30, 2010).The transaction is still subject to the terms of the final agreement for the purchase of shares, to be signed when the preceding conditions are met. The difference between the fair value and the book value of this transaction, totaling R$ 544 million, was accounted for in our net equity, as per gain/loss regulations applicable to when the control of a company is held.

c. Unusual events or operations

Income Tax

In June 2012, the Company decided to incorporate Vale Fertilizantes in the Nague. Consequently, the value of the acquired assets and liabilities stated in the Nague s accounting statements, deducted from the values amortized in the acquisition date, are the operations tax basis. As a result, after the incorporation was concluded, there is no difference between the tax basis and the accounting values of the acquired net assets, and consequently, there is no more deferred income tax liability. The balance of the deferred income tax liability initially stated (accounted for when of the purchasing accounting) totaling R$ 2,533 was entirely reclassified for the fiscal year s result, in connection with the incorporation g Vale Fertilizantes in the Nague.

Assets recoverable value

In 2012, evidence of recoverable value loss was identified in some of the investments as fixed assets from the nickel, aluminum and coal segments.

For the examination of the assets fair value, Vale uses discounted cash flows.

The discount taxes applied in the future cash flow projection represent an estimate of the rate the market would use to meet the risks of the examined assets. The weighted average cost of Vale s capital is used as a basic point for the determination of the discount rates, with appropriate adjustments for the risk profile of countries in which individual cash generating units operate.

Tests were conducted to determine whether the recoverable value is lower than the assets accounting below:

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On December 31, 2012

Assets	Cash Generating Unit	Net Accounting Value	Recoverable Value	R$ millions Impairment Adjustment
Investment				
Aluminum	Hydro	6,598	4,572	2,026
Metallurgy	Thyssenkrupp CSA	4,387	2,583	1,804
Energy	VSE	207	35	172
		11,192	**7,190**	**4,002**
Fixed Assets				
Nickel	Onça Puma	7,653	1,884	5,769
Coal	Austrália	3,365	1,226	2,139
Others		386	83	303
		11,404	**3,193**	**8,211**
		22,596	**10,383**	**12,213**

10.4 Changes in Accounting Practices. Corrections and Remarks.

a. Significant changes in accounting practices

2012

There were no significant changes in the consolidated accounting statements in the fiscal year that ended on December 31, 2012. Vale drafted its consolidated accounting statements in IFRS based on the pronouncements already issued by the CPC and referenced by the CVM. The pronouncements issued by the IASB, and still not referenced by the CVM, will not be adopted in advance by the Company.

Considering the option given by the pronouncement of the CPC 19(R1) Investment in Joint Controlled Enterprise (Joint Venture), issued on August 4, 2011 and anticipating the consequences of the CPC 18(R2) Investment in Associated Company, Controlled Company and in Joint Venture (correlated to IFRS 11), the Company, for the purposes of consolidated statements, chose not to show its participation in controlled companies of shared control by the proportional consolidated method, and chose to present its investment in these entities using the equity equivalence method in the fiscal year of 2012.

Additionally to what is said above, for specific contracts, the Company assumes risks related to product transportation and negotiates the freight cost directly for the client. However, for these contracts, in 2011 and 2010, the main portion of the freight related to CFR (international term for freight and cost) of iron ore and pellets was recorded as if Vale was an operation agent, appearing in freight net income. Vale reviewed the 2011 and 2010 statements to reflect the income of such sales accordingly with the total value charged from clients. As consequence, freight costs related to this operation appears as cost of sold product.

For more information, see Note 2 in the financial statements.

(a) Pronouncements, interpretations, guidelines and revisions approved by the CVM for adoption after to December 31, 2012

- *Investment Entities*

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- *Consolidated Financial Statements, Joint Arrangements and Disclosure of Interests in Other Entities: Transition Guidance*
- *Annual Improvements to IFRSs*
- *Offsetting Financial Assets and Financial Liabilities*
- *Mandatory Effective Date and Transition Disclosures*
- *IFRIC 20 - Stripping Costs in the Production Phase of a Surface Mine*
- *IAS 19 - Employee Benefits*
- *IFRS 10 - Consolidated Financial Statements*
- *IAS 28 - Investments in Associates and Joint Ventures*
- *IAS 27 - Separate Financial Statements*
- *IFRS 11 Joint Arrangements*
- *IFRS 12 Disclosure of Interests in Other Entities*
- *IFRS 13 Fair Value Measurement*

- *IFRS 9 Financial Instruments*

All of the above pronouncements, interpretations, and updates have correlated CPCs that were issued and approved, or that are in the process of being issued and approved by the CVM, with the same adoption dates.

(b) Pronouncements, interpretation, guidelines and revision approved by the CVM to be adopted after December 31, 2012

- CPC 46 Fair Value Measurement
- CPC 36(R3) Consolidated Statement
- CPC 45 Publication of Participation in Other Entities
- CPC 18(R2) Investments in Associated Companies, Controlled Companies, and Joint Ventures
- CPC 33(R1) Employee Benefits
- CPC 19(R2) Joint Businesses

(c) Pronouncements, interpretation, and guidelines issued and / or updated by the CPC to be adopted during the fiscal year of 2012

- CPC 17 (R1) Construction Contracts
- CPC 30 (R1)- REVENUE
- CPC 40 (R1) Financial Instruments: Disclosure

- CPC 35 (R2) Separate Statements

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2011

There have been no significant changes in the consolidated financial statements for the year ended December 31, 2011. Vale prepared its consolidated financial statements in IFRS based on the circulars already issued by the CPC and approved by the CVM. The circulars issued by the IASB and not yet approved by the CVM will not be adopted in advance by the Company.

a) Circulars, interpretations and guidance issued and/or updated by the CPC, adopted during fiscal year 2011.

- CPC 15 (R1) Combination of businesses
- CPC 19 (R1) Investment in joint ventures
- CPC 10 (R1) Cost of loans
- CPC 21 (R1) Intermediate financial statements
- CPC 26 (R1) Presentation of financial statements
- CPC 35 (R1) Separate financial statements correlated according to international accounting norms
- CPC 36 (R2) Consolidated financial statements
- ICPC 01 (R1) Concession contracts
- ICPC 17 Concession contracts: evidence

b) Circulars and interpretations issued and/or updated by the IASB and still not approved by the CVM are consequently not adopted by the Company.

- IAS 01 Presentation of financial statements
- IAS 19 Employee benefits
- IAS 27 Separate accounting statements
- IAS 28 Investments in associated companies and joint ventures
- IFRS 09 Financial instruments

- IFRS 10 Consolidated accounting statements
- IFRS 11 Joint agreements
- IFRS 12 Divulging investments in other entities
- IFRS 13 Measuring fair value
- IFRIC 20 Costs of sterile removal in the production phase of surface mining

2010

Year of adoption of international accounting practices when the Company applied CPCs 37 and 43 while preparing the first accounting statements according to the CPCs. For further information, see note 5 in the accounting statements published in 2010.

b. Significant effects of changes in accounting practices

The Company started to record investments in joint ventures by the equity method on January 1, 2012. The table below summarizes the effects on the comparison period:

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Balance	Balance with proportional consolidation	December 31, 2011 Effects of joint ventures	Balance in proportional consolidation
Assets			
Current			
Cash and cash equivalents	7,458	(865)	6,593
Others	34,637	(1,079)	33,558
	42,095	**(1,944)**	**40,151**
Non-current			
Investments	10,917	4,067	14,984
Fixed and intangible assets	177,857	(6,213)	171,644
Others	10,913	(603)	10,310
	199,687	**(2,749)**	**196,938**
Total of assets	**241,782**	**(4,693)**	**237,089**
Liabilities and Shareholders Equity			
Current			
Accounts payable to suppliers	9,157	(306)	8,851
Loans and financing	3,872	(1,025)	2,847
Others	9,196	(209)	8,987
	22,225	**(1,540)**	**20,685**
Non-current			
Loans and financing	42,753	(2,528)	40,225
Deferred income tax and social contributions	10,773	(159)	10,614
Others	19,340	(456)	18,884
	72,866	**(3,143)**	**69,723**
Shareholders equity			
Capital stock	75,000		75,000
Non-controlling shareholders equity	3,215	(10)	3,205
Others	68,476		68,476
	146,691	**(10)**	**146,681**
Total liabilities and shareholders equity	**241,782**	**(4,693)**	**237,089**

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Results	Balance with proportional consolidation	December 31, 2011 Effects of joint ventures	Balance in proportional consolidation
Income from sales, net	106,470	(4,451)	102,019
Cost of products sold and services provided	(43764)	1,313	(42,451)
Gross income	**62,706**	**(3,138)**	**59,568**
Operating income (expenses)	(9,567)	416	(9,151)
Net financial income	(6,623)	271	(6,352)
Net equity	(51)	1,908	1,857
Earnings before income tax and social contributions	**46,465**	**(543)**	**45,922**
Income tax and social contribution	(9,065)	551	(8,514)
Net income in the period	**37,400**	**8**	**37,408**
Income (loss) attributed to non-controlling shareholders	414	(8)	406
Net income attributed to parent company shareholders	**37,814**		**37,814**

Effects of the change in freight increased the revenue from sales of iron ore and pellets in 2011 in the amount of R$ 3,275 billion (R$ 3,054 billion in 2010), with the corresponding increase in the cost of ore and metals sold. The review did not result in other changes in the statement of income.

c. Corrections and remarks in the auditor s opinion

There were no corrections on the opinions drafted by our independent auditors relating to the financial statements for 2010, 2010 and 2012.

As result of a difference between practices adopted in Brazil and those defined through the International Financial Reporting Standards (IFRS) , the opinion by independent auditors on the financial statements ending on December 31, 2010, 2011, and 2012 present the emphasis paragraph as follows:

As described in Note 2, individual financial statements were prepared in accordance with accounting practices adopted in Brazil. In the case of Vale S.A., these practices differ from IFRS, applicable to separate financial statements, only related to the evaluation of investments in subsidiaries, affiliates, and joint ventures, by the equity method, as in accordance to IFRS, the fair value method should be adopted.

The purpose of such emphasis is to highlight any irregularity or focal point that may create any discomfort to the users of the financial statements. The purpose of this emphasis paragraph is to highlight a difference between accounting practices adopted in Brazil and those defined in the IFRS, justifying both opinions presented in the report by independent auditors on the individual financial statements.

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10.5 Critical Accounting Policies

Preparation of financial statements requires the use of certain critical accounting estimates and also the exercise of judgment by the Company s Management in the process of applying the Group s accounting policies.

These estimates are based on the best information available in each fiscal year. Changes in facts and circumstances may lead to revision of estimates, therefore the actual future results may differ from estimates.

Significant estimates and assumptions used by the Company s Management in preparing these financial statements are thus presented:

a) Mineral reserves and useful life of the mines

The estimates of proven and probable reserves are regularly evaluated and updated. These reserves are determined using generally accepted geological estimates. The calculation of reserves requires that the Company assume positions of future conditions that are uncertain, including future ore prices, exchange and inflation rates, mining technology, availability of permits and production costs. Changes in some of these assumptions could have a significant impact on proven reserves and probable reserves recorded.

The estimated volume of mineral reserves is based on calculation of the portion of the mines that is depleted, and the estimated useful life of the mine is a major factor in quantifying the provision of environmental rehabilitation of mines during the write-down of fixed assets. Any change in the estimates of the volume of mine reserves and the useful life of the assets linked to them may have a significant impact on charges for depreciation, depletion and amortization, which are recognized in the financial statements as cost of goods sold. Changes in the estimated useful life of the mines could cause a significant impact on estimates of the provision for environmental costs of recovery after write-down of fixed assets and impairment analysis.

b) Disposal of Assets

The Company recognizes an obligation according to the fair value for disposal of assets during the period in which they occur, pursuant to the Accounting Statement s Explanatory Note 2(u). The Company believes the accounting estimates related to recovery of degraded areas and closure costs of a mine are a critical accounting policy because they involve significant values for the provision and it is expected to involve several assumptions, such as interest rates, inflation, the useful life of the asset considering the current stage of depletion and the projected dates of depletion of each mine. These estimates are reviewed each year.

c) Deferred Income Tax and Social Security Contribution

The Company recognizes the effect of the deferred tax from the tax loss and/or temporary differences in its consolidated financial statements and the financial statements of the controlling company.

Determination of the provision for income taxes or deferred income tax, assets and liabilities, and any provision for losses on tax credits requires estimates from Management. For each future tax credit, the Company assesses the likelihood of part or the entire asset not being recovered. The provision for devaluation depends on the assessment by the Company, the probability of generating taxable income in the future, on production and sales planning, commodity prices, operating costs, restructuring plans, the costs of recovering degraded areas, and planned capital costs.

d) Provision for legal suits

Provisions for legal suits are only recorded when the possibility of loss is considered to be probable by the legal director and their legal advisers.

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Legal suit provisions are recorded when the value of losses can be reasonably estimated. By their nature, legal suits will be resolved when one or more future events occur or fail to occur. The occurrence of such events does not typically depend on the Company s activities, which makes it difficult to give precise estimates about the date on which such events are recorded. Assessing such liabilities, particularly in the uncertain legal environment in Brazil, and well as in other jurisdictions, involves exercising significant estimates and judgments from management regarding the results of future events.

e) Employee Retirement Benefits

The amounts reported in this section depend on a number of factors that are determined based on actuarial calculations that use several assumptions to determine costs and liabilities, among other things. One of the assumptions used in determining the amounts to be recorded in the financial statements is the discount and corrective interest rate. Any changes in these assumptions will affect the accounting records.

At the end of each year, the Company, together with external actuaries, reviews which assumptions should be used for the following year. These assumptions are used to update and discount the fair value of assets and liabilities, costs and expenses, and to determine future values of estimated cash outflows that are necessary to pay pension plan obligations.

f) Reduction in Recoverable Value of Assets

Every year the Company tests the recoverability of its tangible and intangible assets separated by cash-generation unity, usually employing discounted cash flow criteria, which depends on several estimates that are influenced by market conditions prevailing at the time that such recoverability is tested.

g) Fair Value of Derivatives and Other Financial Instruments

The fair value of financial instruments not traded in an active market is determined by using valuation techniques. The Company uses its judgment to choose the various methods and to define assumptions, which are mainly based on market conditions existing at balance sheet date

The analysis of the impact if actual results vary from Management s estimates is presented in accounting statement s explanatory note 25 on the topic of Sensitivity Analysis.

10.6 Internal Controls

a. Degree of efficiency of such controls, and any imperfections and actions taken to correct them

Vale s Management evaluated the effectiveness of internal controls related to financial statements through a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements.

Management established a process for evaluating internal controls using a process mapping methodology and risk assessment to identify applicable controls in order to mitigate the risks affecting the Company s ability to start, authorize, record, process and release relevant information in the financial statements.

At the end of fiscal year, based on tests performed by Management during the period, no shortcomings were identified in the implementation of relevant controls. During the fiscal year, whenever mistakes are identified in the implementation of controls, they are corrected through the application of action plans to ensure their correct execution at the end of the fiscal year.

Vale s Directors understand that the process-mapping and risk-assessment methodology used are adequate to ensure the efficiency, accuracy and reliability of its internal controls.

b. Deficiencies and recommendations on internal controls included in the independent auditor s report

The independent auditors did not present any deficiencies or recommendations about the effectiveness of internal controls adopted by Vale.

10.7 Public Sale of Securities

a. How resources resulting from the sale were used

2012

Vale priced US$ 1 billion in bonds maturing in 2022.

In January 2012, Vale priced the bonds offer from its whole subsidiary Vale Overseas Limited (Vale Overseas) at US$ 1.0 billion (equivalent to R$ 2.0 billion). The bonds have a 4.375% coupon rate per year, paid biannually, at a price that is 98.804% of the bond s face value. These bonds mature in January 2022 and were issued with a 255 basis points spread over the US Treasury bonds, resulting in a 4.525% yield to the investor. The bonds are a Vale Overseas unguaranteed obligation, and are totally and unconditionally guaranteed by Vale. The guarantee is equally valid as payment for all other obligations of debt without Vale s guarantees.

Vale used this offer s net revenues for general corporate purposes.

Vale priced US$ 1.250 billion in bonds maturing in 2022.

In April 2012, Vale priced the bonds offer of its whole subsidiary Vale Overseas Limited (Vale Overseas) at US$ 1.250 billion (equivalent to R$ 2.6 billion), guaranteed by Vale. Bonds were consolidated in a single series, with Vale Overseas bonds, issued on January 11, 2012, at US$ 1 billion (equivalent to R$ 2.0 billion) with a 4.375% coupon rate and 2022 maturity. Bonds issued in April will have a 4.375% coupon rate of 101.345% of the bond s face value. These bonds mature in January 2022 and were issued with a 200 basis points spread over the US Treasury bonds, resulting in a 4.205% yield per year to the investor. The bonds are a Vale Overseas unguaranteed obligation, and are totally and unconditionally guaranteed by Vale. The guarantee is equally valid as payment for all other obligations of debt without Vale s guarantees.

Vale used the net revenues from this offer for general corporate purposes.

Vale priced 750 million in bonds maturing in 2023

In July 2012, Vale priced the bonds offer of 750 million (equivalent to R$ 1.9 billion) of 10.5 years.Vale will use the net revenue from this offer for general corporate purposes. The notes maturing in 2023, in the amount of 750 million (equivalent to R$ 1.9 billion), have a 3.75% coupon rate per year, paid annually, and were priced at 99.608% of the bond s face value. The bonds mature on January 10, 2023, and were issued with a 180 basis point spread over the mid-swap, or a 225.7 basis point spread over the German Bund s bonds return, resulting in a 3.798% yield per year to the investor. The bonds are an unguaranteed obligation and are *pari passu* for Vale s entire obligation of a similar nature.

Vale has used net revenues from this offer for general corporate purposes.

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Vale priced US$ 1.5 billion in bonds maturing in 2042.

In September 2012, Vale price an offer of US$ 1.5 billion (equivalent to R$ 3.1 billion) in bonds with a 5.625% annual coupon rate, paid biannually, and that were priced at 99.198% of the bond s face value. The bonds mature in September 2042, and were issued with a 300 basis point spread over the US Treasury bonds, resulting in a 5.681% annual yield for the investor. The bonds are an obligation without guarantees and are *pari passu* for Vale s entire obligation of a similar nature.

Vale has used net revenues from the offer for general corporate purposes.

2011

There was no public sale of securities in 2011.

2010

Vale prices US$ 1 billion in bonds maturing in 2020

In September 2010, Vale issued US$ 1.75 billion (equal to R$ 3.6 billion), of which US$ 1.0 billion (equivalent to R$ 2,0 billion) were in bonds maturing in 2020 and 4.65% coupon rate, with biannual payments and US$ 750 million (equivalent to R$ 1.6 billion) by reopening the bonds from 2039, with a 6,074% yield to the investor. The 2039 bonds are part of the US$ 1.0 billion (equivalent to US$ 2 billion) issued in November 2009. The 2020 bonds were issued at 99.030% of the bond s face value and the 2039 bonds issued at 110.872% of the bond s face value.

Vale used the net proceeds of this offering for general corporate purposes.

Vale prices 750 million in bonds maturing in 2018

In March 2010, Vale raised 750 million (equal to R$ 1.9 billion) from an issuance of eight-year Eurobonds at a price of 99.564% of the instrument s face value. The notes maturing in March 2018 have a coupon of 4.375% per year, payable annually.

Vale used the net proceeds of this offering for general corporate purposes.

b. Whether there have been relevant deviations between the actual use of funds disclosed in the offering memoranda of that distribution

There have not been relevant deviations.

c. In the event of deviations, the reasons thereto

There have not been relevant deviations.

10.8 Significant items Not Included in the Financial Statements

a. Assets and liabilities held by Vale, directly or indirectly, that do not appear on its balance sheet (off-balance sheet items)

Nickel Project Vale New Caledonia

Regarding the construction and installment of our nickel processing plant in New Caledonia, we guarantee for the financing agreement, which are related below.

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In connection with the French Girardin tax law, which is favorable to financial merchant leasing operations, sponsored by the French government, Vale guarantees BNP Paribas, in the capacity of an investor receiving a tax benefit pursuant to French law, certain payments due by Vale New Caledônia S.A.S. (VNC). Consistent with the commitment, the assets are substantially concluded on December 31, 2012. Vales has also committed that the assets associated with financial merchant leasing determined by the Girardin Law would be operate for five years from them and under specific production criteria, which remains consistent with our current plans. Vale believes that the probability of the guarantee being claimed is remote.

In October 2012, Vales signed an agreement with Sumic Nickel Netherlands B.V. (Sumic), from VNC, through which Sumic agrees to dilute its VNC participation from 21% to 14.5%. Originally, Sumic has the option to sell his VNC shares to Vale is the defined cost of the initial project of nickel development, as defined by the financing given to VNC in local currency, is converted to US dollars at specific exchange rates exceeds the limit of R$ 9.4 billion (equal to US$ 4.6 billion), and an agreement is not reached on how to proceed in relation to the project. On May 27, 2010 the limit was reached. Vale discussed it and decided to extend the option to July 31, 2012. After October, the option s trigger change from a cost limit to a production limit. The possibility to exercise the option was postponed to the first quarter of 2015.

In addition, during operations, letters of credit were granted, as were guarantees in the amount of R$ 1.7 million (equivalent to US$ 820 million), which are associated with items such as environmental claims, commitment to retiree assets, electricity contracts, post-retirement benefits, service agreements for the community and import and export commitments.

During operations, vale is subject to routine complaints and litigation related to business and environmental lawsuits. Regarding currently pending or threatening environmental lawsuits, there are: (1) personal damages complaints, (2) duress suits, and (3) allegations of violations, including violation to the regulatory limits relative to residue under certain environmental laws and regulation or similar applicable to the operation. Vale believes that the final instance of such lawsuits, complaints and litigation will not harm operations or have an adverse material effect in the equity balance or statement of results.

Commercial Leasing

Railroad operations

The company and some group companies, through the Ministry of Transports, entered into concession contracts with the government for the exploration and development of public service railway transportation and assets leasing aimed to the provision of such services. The accounting statements of concessions and sub-concessions classified as intangible assets are shown in note 13 of the accounting statement.

The following tables show the minimum amount of future payments of the operating lease in railroad operations and pelletizing operations at December 31, 2012.

Railroad Operations	**Consolidated R$ millions**

2013	174
2014	174
2015	174
2016	174
2017 forward	1,032
Total	**1,728**

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Pelletizing Operations

	Consolidated R$ millions
2013	74
2014	43
2015	33
2016 forward	93
Total	**243**

The total cost for operating leases in consolidated railroad operations during the year ended December 31, 2012 and 2011 and 2010 was R$ 174 million R$ 163 million, and R$ 150 million, respectively, and costs for operating leases for consolidated pelletizing operations in the year ended December 31, 2012, 2011 and 2010, were R$ 419 million, R$ 737 million and R$ 178 million, respectively.

Concessions and Sub-Concession Agreements

Railway transportation companies

Vale and some companies in the group, through the Ministry of Transport, entered into concession agreements with the government for exploration and development of public railway transport of cargo and leasing of assets for the provision of such services. The accounting records of concessions and sub-concessions classified as intangible assets are shown in explanatory note 15 of the financial statements.

The concession periods for the railroad are:

Railroad	Period of the Concession
Vitória to Minas and Carajás(direct) (i)	June 2027
Carajás (direct) (i)	June 2027
Center-East Network (indirect through FCA)	August 2026
Ferrovia Norte Sul S.A. (FNS)	December 2037

(i) Non-onerous concessions.

The concession will be terminated if one of the following takes place: the end of the contractual period, expropriation, forfeiture, termination of period, cancellation, bankruptcy or closure of the Concessionary.

Concessions, sub-concessions and leasing of controlled companies are handled, for accounting purposes, as operational leases and have the following characteristics:

	FNS	FCA
Total number of installments	3	112
Payment frequency	(i)	Quarterly
Correction index	IGP-DI FGV	IGP-DI FGV
No. of parcels already paid	(ii)	54
Current value of installment		
Concession		2
Leasing		31

(i) According to the delivery of each stretch of railroad

(ii) Made two payments and 80% of the third payment was made, with the remaining 20% pending payment to cover existing pending items in the railroad stretch

Port Terminals

The Company owns specialized port terminals, as follows:

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Terminal	Location	Period of the concession
Tubarão, Praia Mole and Bulk Liquids Terminals	Vitória - ES	2020
Various Products Terminal	Vitória - ES	2020
Vila Velha Terminal	Vila Velha - ES	2023
Maritime Terminal of Ponta da Madeira - Piers I and III	São Luiz MA	2018
Maritime Terminal of Ponta da Madeira - Pier II	São Luis - MA	2010 (i)
Inácio Barbosa Maritime Terminal	Aracajú - SE	2012
Ore Exploration Terminal - Port of Itaguaí	Itaguaí - RJ	2021
Ilha Guaíba Maritime Terminal - TIG	Mangaratiba - RJ	2018

(i) Extension of valid period for 36 months until the completion of new public bidding.

Guarantee granted to associated companies

The Coligada Norte Energia acquired in 2012 a line of credit from BNDES, Caixa Econômica Federal, and Banco BTG Pactual, with the purpose of financing its investments in energy in the potential total amount of R$ 22.5 billion. Regarding this line of credit, Vale, as well as its other shareholders, commits to give corporate guarantee over the value withdrawn, limited to its 9% participation in the entity.

By December 31, 2012, Vale granted guarantee over the withdrawn value in the amount of R$ 282 million (US$ 126 million). On January 2, 2012 (Subsequent Event), Norte Energia gained the release of another share of its loan, increasing the value guaranteed by Vale from R$ 188 million to R$ 470 million.

b. Other items not shown in the financial statements

There are no other items not shown in Vale s financial statements other than those previously reported.

10.9 - Comments on items not shown in the Financial Statements

Vale s Directors do not expect relevant effects on the operations described in item 10.8 of this Reference Form and not recorded in the financial statements that would change the revenues, expenses, operating result, financial expenses or other items in Vale s financial information.

For a description of the nature and purpose of each operation, as well as the amount of the obligations assumed and rights generated on behalf of Vale as a result of operations not shown in our financial statements, please refer to item 10.8 of this Reference Form.

10.10 - Business Plan

a. Investments, including: (i) quantitative and qualitative description of ongoing and planned investments; (ii) sources of investment financing; and (iii) relevant ongoing and planned divestments.

b. Already-disclosed acquisition of plant, equipment, patents or other assets that should materially affect Vale s production capacity

c. New products and services, including: (i) description of ongoing research already published; (ii) the total amounts spent by the issuer on research to develop new products or services; (iii) ongoing projects already announced; and (iv) the total amounts spent by the issuer to develop new products or services

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NOTE: To convert the amounts of investments made, the average exchange rates in the periods were used for conversion.

In 2012, investments excluding acquisitions were R$ 34.660 billion, an increase of 15% over the R$ 30.133 billion invested in 2011, although this was below what was budgeted. Of the total amount invested in 2012, R$ 22.639 billion was allocated to project development, R$ 2.997 billion to R&D, and R$ 9.025 billion to sustaining existing operations. Investments in corporate social responsibility were R$ 2.626 billion (R$ 2.005 billion earmarked for environmental protection, and R$ 621 million to social projects).

Investments in acquisitions were R$ 1.267 billion in 2012. The main acquisitions are commented on in item 10.3 of this Reference Form

In 2011, investments excluding acquisitions were R$ 30.133 billion, a significant increase of 42% over the R$ 21.276 billion invested in 2010, although this was below what was budgeted due to challenges in execution of projects. Of the total amount invested in 2011, R$ 19.566 billion was allocated to project development, R$ 2.917 billion to R&D, and R$ 7.650 billion to sustaining existing operations. Investments in corporate social responsibility were R$ 2.492 billion (R$ 1.725 billion earmarked for environmental protection, and R$ 765 million to social projects).

Investments in acquisitions were R$ 2.371 billion in 2011. The main acquisitions are commented on in item 10.3 of this Reference Form.

In 2010, investments excluding acquisitions were R$ 22.352 billion, with R$ 14.494 billion allocated to project development, R$ 1.998 billion to R&D after adjustments in natural gas exploration - and R$ 5.858 billion to sustaining existing operations. Investments in corporate social responsibility were R$ 1.998 billion, R$ 1.296 billion earmarked for environmental protection, and R$ 701 million to social projects.

The investments in acquisitions totaled R$ 11.800 billion in 2010. The main acquisitions are commented on in item 10.3 of this Reference Form.

In 2012,Vale started operations in two projects (a) Salobo I, a copper and gold operation in Pará, and (b) Lubambe, a copper operation located in Africa s copper belt, in Zambia.

2013 Capital Budget

In December 2012, our Board of Directors approved our capital budget for 2013, including expenditures of US$ 10.1 billion (equal to R$ 21.3 billion) for project execution, US$ 1.1 billion (equal to R$ 2.3 billion) for research and development (R&D), and US$ 5.1 billion (equal to R$ 10.8 billion) dedicated to sustaining existing operations.

The following table shows the estimated allocation of approved investments:

Allocation of Investments for 2013	**%**
By Category	
Projects	62.1%
Maintaining operations	31.4%
R&D	6.5%
Total	100.0%
By business area	
Bulk materials	57.6%
Ferrous minerals	46.9%
Coal	10.6%
Base metals	23.2%
Fertilizers	8.2%
Logistics for general cargo	3.3%
Energy	1.7%
Steel	3.2%
Others	2.9%
Total	100.0%

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The following table shows the main projects under development by Vale and/or by companies in the group:

		Investment Made		R$ millions	Expected Investment		
Project	**Estimated Start-up Date**	**2010**	**2011**	**2012**	**2013**	**Total**	**Status(1)**
IRON ORE MINING AND LOGISTICS							
Carajás Additional 40 Mtpa	2S13	637	831	1,871	1,019	6,462	Electromechanical assembly of processing plant and line of shipment are at an advanced stage. Assembly of metallic structure for the sifting stage. Operation license (LO) expected for 2S13.
Construction of dry-processing plant located in Carajás, Pará							85% of physical advance in the mine and plant.
Estimated nominal capacity of 40 Mtpa							
CLN 150 Mtpa Increase capacity on the railroad and in the Northern System port, including the construction of the fourth pier at the maritime terminal of Ponta da Madeira, located in Maranhão	1S13 a 2S14	1,038	2,488	1,980	926	7,650	The first ship docked a shipping test was conducted in the first ship at Pier IV. Operational tests conducted with railway roundhouse, discharge lines, and forklift. Conclusion of the railway access to the roundhouse. Installation license (IL) required for railway were issued. Onshore and offshore operation license (LO) expected for 1S13.
[redacted]							
Carajás Serra Sul S11D	2S16	378	1,233	1,445	1,224	14,949	Access road construction finished. Ongoing assembly of offsite module and of equipment delivery for truckless mining system. Installation license (IL) is expected for 1S13.
Development of mine and processing plant. Location in the southern mountains of Carajás, Pará.							
Estimated nominal capacity of 90 Mtpa.							41% physical advance.
Serra Leste	2S14	26	194	291	309	889	

	Ongoing construction for assembly of processing plant s metallic structure. Re-sequencing of start-up to relieve resource pressure. Installation licenses (IL) issued.
Construction of new processing plant located in Carajás, Pará.	
Estimated nominal installed capacity of 6 Mtpa.	95% physical advance.

Conceição Itabiritos	2S13	315	613	446	387	2,183	Construction of main areas concluded and on-going installation of sifting building s metallic structure. Operation license (LO) expected for 2S13.
Construction of concentration plant, located in the Southeastern System, Minas Gerais.							
Estimated nominal capacity of 12 Mtpa.							76% physical advance
Vargem Grande Itabiritos	1S14	102	621	952	963	3,059	Assembly is ongoing. Heavy equipment received. Issuance of installation license (IL) expected for 1H13.
Construction of new iron ore processing plant, located in the Southern System, Minas Gerais.							
Estimated nominal capacity of 10 Mtpa.							76% physical advance.
Conceição Itabiritos II	2S14	16	251	518	366	2.211	Commission of hematite s primary crusher concluded. Installation license (IL) issued.
Estimated nominal capacity of 19 Mtpa (without addition of liquid capacity).							58% physical advance.
Cauê Itabiritos	2S15	0	35	192	383	2.797	Construction and land-leveling services. Advanced license and installment license (LP / LI) for the primary crusher expected for1S14.
Adaptation of the Itabiritos processing plant with low contents, from Minas do meio, located in the Southeast System, Minas Gerais.							15% physical advance
Estimated nominal capacity of 24 Mtpa, with additional net capacity of 4 Mtpa in 2017. 29% sinter feed, with 65.3% Fe and 4.4% sílica, and 71% pellet feed, with 67.8% Fe e 2.8% silica.							
Simandou I Zogota	Under analysis	55	298	583	17	2.343	Scope and schedule under revision.
Development of the Zogota mine and the processing plant in the south of Simandou, Guinea.							
Estimated nominal capacity of 15 Mtpa.							
Teluk Rubiah	1S14	76	281	583	824	2,550	Land-leveling services at an advanced stage. Construction of the main jetty is ongoing; pile driving job nearly done.. Operating license expected for 1S14.
Construction of maritime terminal with sufficient depth to receive ships of 400,000 dwt							

and an inventory yard. Located in Teluk Rubiah, Malaysia.	
Inventory yard with revolving capacity of up to 30 Mtpa for iron ore	54% physical advance..

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products.							
PELLETIZING PLANTS							
Tubarão VIII	2S12	236	313	542	294	2,023	Assembly of refraction oven concluded. Equipment commissioning ongoing. Operating license (OL) expected for 1SH13. Operating license (OL) expected for 2SH12.
Estimated nominal capacity of 7.5 Mtpa.							91% physical advance..
Samarco IV	1H14					3,148	Mechanical equipment, assembly of metallic structures and civil construction are underway. 71% physical advance on the pelletizing plant. Budget fully financed by Samarco.
Construction of the fourth pelletizing plant, expansion of the mine, ore pipeline, and infrastructure at the maritime terminal. Vale has a 50% stake in Samarco.							
Estimated nominal capacity of 8.3 Mtpa, increasing the capacity of Samarco to 30.5 Mtpa.							
COAL MINING AND LOGISTICS							
Moatize II	2S15	0	122	749	640	3,846	Civil construction underway in the storage patio and primary crusher.
New mine and duplication of CHPP of Moatize, as well as related infrastructure. Location in Tete, Mozambique.							
Estimated nominal capacity of 11 Mtpa (70% metallurgical coal and 30% thermal coal).							27% physical advance..
Nacala Corridor	2S14	0	64	725	2,007	8,264	Land-leveling services of railroad stretches and at the onshore port are underway. Offshore equipment received for the construction of the port.
Port and railroad infrastructure connect the Moatize site to the maritime terminal of Nacala-à-Velha, located in Nacala, Mozambique.							
Estimated nominal capacity of 18 Mtpa.							12% and 15% of physical project on the railway and port, respectively.
COPPER - ORE							
Salobo II	2S13	150	447	796	746	3,174	Civil engineering work in flotation areas, mill and crusher are finished. Electromechanical assembly of equipment in these areas is underway. Operating license (OL) for the plant expected for 1S14.
Expansion of Salobo, raising of the dam and							

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increasing the capacity of the mine, located in Marabá, Pará.							
Estimated additional nominal capacity of 100,000 tpa of concentrated copper.							68% physical advance.
NICKEL MINING AND REFINING							
Long Harbour	2S13	936	1,785	2,848	2,034	7,903	Infrastructure and civil construction are basically finished. Project entering the final stage of electromechanical assembly and commissioning. way.
Hydro-metallurgical operation. Located in Long Harbour, Newfoundland and Labrador, Canada.							
Estimated nominal refining capacity of 50,000 tpa of refined nickel, and associated copper and cobalt.							584% physical advance.
Totten	2S13	148	208	0	318	1,411	51% physical advance. Total investment executed of US$402 million.
Nickel mine (being reopened) in Sudbury, Ontario, Canada. Estimated nominal capacity of 8,200 tpa.							
POTASH MINING AND LOGISTICS							
Rio Colorado	Under analysis	384	1.018	2.743	1.136	11.000	Mechanical installation of mine s ventilation and water pumping systems concluded.
Investments in an extraction system that uses solutions, located in Mendoza, Argentina, renewal of existing railroad (440 km), construction of a railroad line (350 km) and a maritime terminal in Bahia Blanca, Argentina.							
Estimated nominal capacity of 4.3 Mtpa of potash (KCI).							76% physical advance.
ENERGY							
Biodiesel	2S15	157	348	162	139	1,177	Land-leveling for biodiesel plant and for second palm oil plant. The first palm oil plant was commissioned and is operating. Installation license (IL) expected for 2S13 and operating license (LO) for 2S15..
Project to produce biodiesel from palm oil. Plantation of 80,000 hectares. Located in Pará, Brazil.							
Estimated nominal							

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capacity of 360,000 tpa of biodiesel.							
STEEL							
CSP(2)	1S15	0	437	575	816	4,924	Final stages of land-leveling services. Pile driving job underway. 20% physical advance.
Development of a steel sheet plant in partnership with Dongkuk e Posco, located in Ceará. Vale holds 50% of the joint venture.							P
Estimated nominal capacity of 3.0 Mtpa.							

(1)Expected investment is related to Vale s stake in the project.

10.11) Other factors with relevant influence

There are no other factors that have relevantly influenced the Company s operating performance that have not been identified or commented on other items in this section.

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11.1 Identification of forecasts

Vale provides no guidance in the form of quantitative predictions about its future financial performance (earnings guidance). However, Vale makes an effort to disclose as much information as possible about its vision of the different markets where it operates, as well as the strategic guidelines of the company and their execution, so as to provide participants in the capital market with a sound basis for the formation of expectations about its performance in the medium and long term.

For information about future investment projections for the company, see item 10.10 of this Reference form.

a. Object of projections

Not applicable.

b. Term under consideration and the validity of forecasts

Not applicable.

c. Premises of projections, with an indication of those which can be influenced by the administration of the Company

Not applicable.

d. Values of indicators that are the object of projections for the last 3 fiscal years

Not applicable.

11.2 Follow-up and changes to disclosed projections:

4 identify which are being replaced by new projections included in the form and which ones are being repeated in the form

Not applicable.

5 regarding projection periods already elapsed, compare the data projected with the effective performance of the indicators, indicating clearly the reasons that led to deviations in the projections

Not applicable.

6 regarding projections for periods still ongoing, to make known if projections are still valid on the date of submission of the form, and, when applicable, explain why they have been abandoned or replaced

Not applicable.

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12.1 Description of Administrative Structure

a. ***Powers of each body and committee***

Board of Directors:

The Board of Directors of Vale is comprised of 11 members and their respective deputies, with unified term of two years, and subject to reelection. Under Vale By-Laws, the Chairman of the Board of Directors and Managing Director positions cannot be held by one single individual. Also under the terms of the Bylaws, the Board of Directors has the powers contemplated in law:

I. Distributing the compensation set by the general assembly among its members, the two advisory committees, and the Executive Board;

II. Creating technical and consultative committees to advise it, in addition to the permanent committees contemplated in the Bylaws;

II. Approving policies of selection, evaluation, development, and compensation of the members of the Executive Board;

IV. Approving general Human Resource policies;

V. Approving strategic guidelines and the strategic plan of Vale submitted annually by the Executive Board;

VI. Approving annual and multi-annual budgets;

VII. Monitoring and evaluating the financial and economic performance of Vale;

VIII. Approving investment and/or development opportunities that exceed the limits established for the Executive Board as defined by the Board of Directors;

IX. Issuing opinions on merger, split-off, or incorporation decisions of which Vale is a party, as well as share purchases;

X. In accordance with the corporate purpose of Vale, making decisions on the setting-up of companies or transformation into a different type of company, direct or indirect participation or withdrawal from other companies, consortia, foundations, and other organizations through exercise of withdrawal rights, exercise or non-exercise of rights of preference in subscription and acquisition, directly or indirectly, of corporate equity or of any other form of participation or withdrawal as prescribed by law, including, but not limited to, merger, split-off, and incorporation of companies in which it participates;

XI. Approving the corporate risk and financial policies of Vale;

XII. Approving the issuance of simple debentures, not convertible into shares and without collateral;

XIII. Appointing and removing the person responsible for internal auditing and for the Ombudsman, who shall report directly to the Board of Directors;

XIV. Approving policies and the annual internal audit plan of Vale, as well as to acknowledge the respective reports and determine the adoption of any necessary measures;

XV. Approving alterations in corporate governance rules;

XVI. Approving policies on employee conduct based on the ethical and moral standards described in the Code of Ethical Conduct of Vale;

XVII. Approving policies to avoid conflicts of interest between Vale and its shareholders or managers, as well as on the adoption of measures considered necessary in the event such conflicts arise;

XVIII. Approving policies of institutional responsibility, especially those related to: the environment, work health and safety, and the social responsibility of Vale;

XIX. Approving the provision of guarantees in general, establishing criteria for the Executive Board for purchase of, financed sale of, or placing liens on, fixed assets and for the constitution of encumbrances for obtaining loans, financing, and other contracts, execution of commitments, non-exercise of rights and transactions of any nature, except waiver of preemptive rights in the subscription and purchase of corporate shares;

XX. Approving any reformulations, alterations or amendments to shareholder agreements or consortia contracts or agreements among shareholders or among consortia parties of

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companies in which the company participates and, moreover, signing of new agreements and/or consortia contracts that address matters of this nature;

XXI. Authorizing the negotiation, signing, or alteration of contracts of any kind or value between Vale and (i) its shareholders, either directly or through intermediary companies, (ii) companies that directly or indirectly participate, in the capital of a controlling shareholder or which are controlled by or are under joint control of entities that participate in the capital of the controlling shareholder and/or (iii) companies in which the controlling shareholder of the Company participates, and the Board of Directors may establish delegations, with standards and procedures that meet the requirements and nature of operations, without prejudice of keeping the aforementioned group duly informed of all company transactions;

XXII. Authorizing plans for repurchase of shares of their own issuance for maintenance in treasury, cancelation or subsequent sale;

XXIII. Approving or delegating to the Executive Board recommendation of persons who should form part of the administrative, consulting, and financial bodies of those companies and organizations in which Vale participates, either directly or indirectly;

XXIV. Determining the preparation of balance sheets for periods of less than one year and declaring dividends or interest on its own capital on the basis of the profits shown on these balance sheets, as well as declaring the m on the basis of accrued profits or existing profit reserves shown on the most recent annual or intermediate balance sheet;

XXV. Authorizing increases in corporate capital regardless of changes in bylaws, within the authorized capital limit and, at its discretion, exclude preemptory rights in the issuance of stock, debentures convertible into shares and subscription bonuses, the placement of which is done through sale on the stock market or by public subscription under terms established in Law 6.404/76; and

XXVI. Approving recommendations submitted by the Fiscal Board of the Company in the exercise of its legal and statutory attributions.

Advisory Committees:

The Board of Directors counts on the assistance, on a permanent basis of five (5) technical and advisory committees, as follows: Executive Development Committee; Strategic Committee; Finance Committee; Accounting Committee, and Governance and Sustainability Committee.

The mission of these committees is to assist the Board of Directors, including the monitoring of Vale activities, in order to provide more effective and higher quality solutions.

Executive Development Committee:

Under terms of article 21 of the Bylaws, the Executive Development Committee shall be responsible for:

I - Issuing reports on the human resources general policies of the Company submitted by the Executive Board to the Board of Directors;

II - Analyzing and issuing reports to the Board of Directors on the appropriateness of remuneration of members of the Executive Board;

III - Submitting and keeping current the methodology of performance evaluation of the members of the Executive Board; and

IV - Issuing reports on Vale s health and safety policies proposed by the Executive Board.

Strategic Committee:

Under terms of article 22 of the Bylaws, the Strategic Committee is responsible for:

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I - Issuing reports on Vale s strategic guidelines and the strategic plan submitted annually by the Executive Board;

II - Issuing reports on Vale s annual and multi-annual investment budgets submitted by the Executive Board to the Board of Directors;

III - Issuing reports on investment and/or divestiture opportunities submitted by the Executive Board to the Board of Directors; and

IV - Issuing reports on operations relating to merger, split-off, and incorporation operations in which the Company and its controlled subsidiaries are a party, and on share purchases submitted by the Executive Board to the Board of Directors.

Finance Committee:

Under terms of article 23 of the Bylaws, the Financial Committee is responsible for:

I - Issuing reports on the corporate risks, financial policies and the internal financial control systems of the Company; and

II - Issuing reports on the compatibility between the shareholders remuneration level and the parameters established in the annual budget and financial planning, as well as their consistency with the general policy on dividends and the capital structure of the company.

Accounting Committee:

Under terms of article 24 of the Bylaws, the Comptroller s Committee is responsible for:

I - Recommending to the Board of Directors the appointment of the person responsible for the internal auditing of the Company;

II - Issuing reports on policies and the Company s annual auditing plan submitted by the employee responsible for internal auditing, and on its execution;

III - Tracking the results of the Company s internal auditing, and identifying, prioritizing, and submitting to the Board of Directors actions to be monitored by the Executive Board

Governance and Sustainability Committee:

Under terms of article 25 of the Bylaws, the Committee on Governance and sustainability is responsible for:

I - Evaluating the efficiency of Vale s governance practices and the workings of the Board of Directors, and submitting improvements;

II - Submitting improvements to the Code of Ethics and the management system in order to avoid conflicts of interest between the company and its shareholders or managers;

III - Issuing reports on potential conflicts of interest between the company and its shareholders or administrators; and

IV - Issuing reports on policies related to Vale s institutional social responsibilities, such as environmental-related issues and the social responsibilities, as proposed by the Executive Board.

Executive Board:

The Executive Board of Vale is comprised by, at least, 6, and at the most, 11 members, with a term of two years, subject to reelection. Under Vale By-Laws, the Chairman of the Board of Directors and Managing Director positions cannot be held by one single individual. Also, under terms of the Bylaws, the Executive Board has the following responsibilities, in addition to those contemplated in law:

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I. Approving the creation and elimination of Executive Departments subordinated to each Executive Director;

II. Preparing and submitting to the Board of Directors the company s general policies on human resources, and executing the approved policies;

III. Preparing and submitting, annually, to the Board of Directors, Vale s strategic guidelines and the strategic plan, and executing the approved strategic plan;

IV. Preparing and submitting Vale s annual and multi-annual budgets to the Board of Directors, and executing the approved budgets;

V. Planning and conducting the Company s operations and reporting Vale s economic and financial performance to the Board of Directors, and producing reports with specific performance indicators;

VI. identifying, evaluating and submitting investment and/or divestiture opportunities to the Board of Directors which exceed the limits of the Executive Board as defined by the Board of Directors, and executing the approved investments and/or divestitures;

VII. Identifying, evaluating and submitting to the Board of Directors operations relating to merger, split-off, incorporation in which Vale is a party, as well as share purchases, and conducting the approved mergers, split-offs, incorporations and purchases;

VIII. Preparing and submitting Vale s finance policies to the Board of Directors, and executing the approved policies;

IX. Submitting to the Board of Directors the issuance of simple debentures, not convertible into shares and without collateral;

X. Adhering to and encouraging adhesion to Vale s Code of Ethics, established by the Board of Directors;

XI. Preparing and submitting to the Board of Directors Vale s policies on corporate responsibility, such as the environment, health, safety and social responsibility, and implementing the approved policies;

XIV. Propose to the Board of Directors any reformulations, alterations, or amendments of shareholders agreements or of agreements among the shareholders of companies in which Vale participates, as well as suggesting the signing of new agreements and consortia contracts that address subjects of this nature;

XV. Authorizing the opening and closing of branch offices, subsidiary branch offices, depots, agencies, warehouses, representative office or any other type of establishment in this country [Brazil] or abroad;

XVI. Authorizing the purchase of, sale of and placing of liens on fixed and non-fixed assets including securities, contracting of services, whether the company is the provider or receiver of such services, being empowered to establish standards and delegate powers, all in accordance with the criteria and standards established by the Board of Directors;

XVII. Authorizing the signing of agreements, contracts and settlements that constitute liabilities, obligations or commitments on the Company, being empowered to establish standards and delegate powers, all in accordance with the criteria and standards established by the Board of Directors;

XVIII. Authorizing the signing of commitments, waiver of rights, and transactions of any nature, except in regard to the waiver of preemptory rights in subscription and purchase, and may establish rules and delegate powers, all within the limits of the Executive Board as established by the Board of Directors;

XIX. Establishing rules and delegating powers, within the limits of the Executive Board as established by the Board of Directors;

XX. Laying down voting guidelines to be followed at the General Assemblies or their equivalent by its representatives in the companies, foundations and other organizations in which Vale participates, directly or indirectly, respecting the investment opportunities

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the , and guidelines approved by the Board of Directors, as well as the respective budget and all within its respective limits in regard to, among other things, indebtedness, the sale of or placing of liens on assets, the waiver of rights, and the increase or reduction of corporate equity.

Non-Statutory Committees:

The Executive Board shall have, for advice on a permanent basis, two (2) technical and advisory committees, denominated as follows: Risk Management Committee and Disclosure Committee.

Disclosure Committee:

The primary attributes of the Disclosure Committee are (a) the evaluation of the relevance of acts or events that have occurred and are related to the business of Vale; and (b) the oversight of the disclosure of information to the capital markets pursuant to the terms of the Disclosure Policy. For more information on the Disclosure Committee see item 21.1.

Risk Management Committee:

The primary responsibilities of the Risk Management Committee are issuing an opinion on Vale s principles and instruments of risk management; and periodic reporting to the Executive Board on (a) the primary risks to which Vale is exposed (by type of risk and/or business) and the impact of these risks on the asset portfolio and cash flow; (b) how the risks are being monitored and managed, and (c) the impact on the profile of risk of the asset portfolio and on cash flow resulting from the inclusion of new investments and/or projects in the business plan, and, if necessary, what strategies of risk mitigation are recommended. The Risk Management Committee reports regularly to the Executive Board, and the latter is responsible for evaluating and approving strategies for risk attenuation over the long term, as recommended by the Risk Management Committee.

Fiscal Board:

The Fiscal Board shall be responsible for exercising the functions attributed to it by the applicable prevailing legislation, in Vale By-Laws, and as regulated by its own Internal Rules to be approved by its members.

The Fiscal Board, additionally to attributions set forth in Law 6404/76, is responsible to:

I. be aware of internal audit reports, external auditors and Comptroller Committee, evaluating recommendations and opinions and inviting them to attend meetings of the Fiscal Board, when needed.

II. provide information on matters under its competence, upon request by shareholders or shareholders groups representing a minimum of 5% of capital stock;

III. discuss with external auditors, internal auditors, Executive Directors, Comptroller Committee and Comptroller Director the result of internal control system evaluation, aiming improvement and certifying that recommendations presented and not questioned by the Executive Directors are deployed at the estimated schedule;

IV. make recommendations and to help the Board of Directors in the selection, remuneration, and dismissal of external auditors of Vale;

V. Oversee and evaluate the work of external auditors and determine to Company management any eventual withholding of compensation of the external auditor;

VI. Deliberate on the contracting of new services that may be rendered by the external auditors of Vale;

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VII. Evaluate the effectiveness of internal controls of Vale and recommend changes, when needed; VIII. identify critical accounting aspects and analyze appropriate application of generally accepted accounting principles (US GAAP AND BR GAAP)

IX. Mediate eventual disputes between management and external auditors regarding the financial statements of Vale;

X. Set forth the procedures to be used by Vale to receive, process and deal with complaints or claims related to accounting and auditing matters, as well as guaranteeing that the mechanisms to receive complaints guarantee the confidentiality and unknown identity of the individual making the complaint;

XI. make available, thirty (30) days prior to General Shareholders Meeting, an opinion on the report financial statements and other related documents and affairs included in the agenda to be discussed.

b. Date of formation of the Fiscal Board, if it is not permanent, and of the formation of the committees.

The Fiscal Board has been a permanently functioning body since 9/25/1997.

The five Advisory Committees were formed by the Board of Directors on 12/19/2001, and pursuant to resolutions of the Special Shareholders Meeting held on 12/27/2002, upon which date their existence became part of the Bylaws.

The Disclosure Committee and the Risk Management Committee were formed upon deliberations by the Board of Directors on 6/19/2002 and 12/12/2005, respectively.

c. Mechanisms for evaluating the performance of each body or committee

Pursuant to Chapter Vi of the Internal Regulations of the Fiscal Board and provisions of the Sarbanes-Oxley Law, the Fiscal Board evaluates its own performance annually at the end of each audit cycle. The self-evaluation process considers the following: matters covered in monthly meetings, financial statements, risk management, and internal controls, management and internal audit responsibility, relationship with external auditors, resources and special research, formation of the Fiscal Board, and training and professional development of members. Only the independent auditors of Vale shall have knowledge of the self-evaluation conducted by the members of the Fiscal Board.

As of December 31, 2012, Vale did not have in place mechanisms of formal evaluation of the performance of the Board of Directors and of the Committees. For a description of the individual evaluation of the Executive Directors, see item 12.1(e) of this Reference Form.

d. On Executive Officers, their responsibilities and individual powers

Chief Executive Officer:

Under terms of article 33 of the Bylaws, the Chief Executive Officer has the following responsibilities:

I. Presiding over meetings of the Executive Board;

II. Exercising executive direction of the Company, with powers to coordinate and supervise the activities of the other Executive Officers, exerting his best efforts to ensure faithful

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compliance with the decisions and guidelines laid down by the Board of Directors and the General Assembly;

III. Coordinating and supervising the activities of the business areas and units that are directly subordinated to him;

IV. Selecting and submitting to the Board of Directors the names of candidates for Executive Officer posts to be elected by the Board of Directors, as well as to propose their respective removal;

V. Coordinating and processing the decision-making of the Executive Board in order to prioritize consensual decision among its members. If consensus is not achieved, the Chief Executive Officer may (i) withdraw the subject in debate; (ii) articulate the position of the majority, including making use of the deciding vote or (iii) in the interest of the Company and through well-based reasoning, decide individually on matters of joint deliberation; in this case he must report to the Board of Directors on the use of this prerogative at the first meeting of the Board of Directors that occurs after the corresponding decision. Decisions related to annual and multi-annual budgets and the Strategic Plan and the Annual Report on Administration of Vale shall be taken by a majority of votes, when considering all of the Executive Officers, so long as the favorable vote of the Chief Executive Officer is among the m;

VI. Indicating who among the Executive Officers shall replace an Executive Officer in case of a temporary impairment or absence;

VII. Keeping the Board of Directors informed about the activities of Vale;

VIII. Preparing the annual report and drawing up the balance sheet together with the other Executive Officers.

Executive Officers:

Under terms of article 34 of the Bylaws, the Executive Officers have the following responsibilities:

I Performing the services for which they are responsible;

II Participating in meetings of the Executive Board, contributing to the definition of the policies to be followed by the company reporting on matters of the respective areas of responsibility;

III Complying with and ensuring compliance with the policy and general direction of the company s business established by the Board of Directors, each being responsible for his specific area of activities; and

IV Contracting the services of attorneys, consultants, analysts, and other resources necessary for performance of the functions of the Fiscal Board, within budget, as well as contracting experts under terms of article 163 §8 of Law 6,404/76.

In addition to this, under terms of article 28 of the Bylaws and within the limits established for each Executive Officer, decisions on matters affecting the specific area of responsibility of each one shall be made by him alone, so long as the matter does not affect the area of responsibility of another Executive Officer, or in conjunction with the Chief Executive Officer in matters or situations pre-established by the latter.

e. Mechanisms of evaluation of the performance of members of the Board of Directors, of the Committees, and of the Committees and directorate

As of December 31, 2012, Vale did not have mechanisms in place for formal evaluation of the performance of members of the Board of Directors, of the Fiscal Board, and of the Committees.

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The members of the Board of Directors are evaluated annually based on their performance according to goals previously defined formally by the Board of Directors. These goals are based on Vale s performance, by means of measurement of the following indicators: asset cash flow and general indicators of productivity, safety, and the environment. The definition of these indicators and goals derive from the strategic planning and the budget approved by the Board of Directors. The goals are monitored by the area of budget and performance management. The final result is approved by Vale s Board of Directors.

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12.2 Description of the rules, policies, and practices relating to General Assemblies

a. Notification Periods

Vale customarily calls for the General Shareholders Meetings by notification, at least 30 days before the meeting in the first convocation, and 15 days prior in the second convocation, upon calling, in accordance with the recommendations of the CVM and commitments assumed before the Hong Kong Stock Market.

In addition, pursuant to article 8, §2 of Vale s Bylaws, a holder of special class preferred shares (Golden Shares) shall be called formally by the company, by means of personal correspondence directed to his legal representative at least fifteen (15) days in advance, for the purpose of considering any matter subject to the right of veto specified in Article 7 of the Bylaws and in item 18 of this Reference Form.

b. Powers

Vale s General Shareholders Meeting has powers pursuant to Law 6.404/76, and the General Shareholders Meeting shall be responsible to:

I amend the bylaws;

II elect or dismiss, at any time, company managers and counselors, provided that the Board of Directors is entitled to elect and dismiss company directors and determine their attributions;

III annually receive accounts from manager and deliberate on financial statements;

IV authorize the issuance of debentures, provided that the Board of Directors may authorize the issuance of debentures in specific cases provided for in Law 6.404/76 and the Company Bylaws;

V suspend the exercise of shareholders rights;

VI deliberate on the valuation of assets provided by shareholders to comprise the capital stock;

VII authorize the issuance of beneficiaries;

VIII deliberate on the transformation, merger, incorporation and division of the company, its dissolution and liquidation, elect and dismiss liquidating agents and appreciate the accounts; and

IX authorize managers to declare bankruptcy and composition with creditors.

c. Addresses (physical or electronic) at which documents relating to the General Assembly shall be available to shareholders for their review

At Vale s headquarters at Avenida Graça Aranha n° 26, 12º andar, Centro, city of Rio de Janeiro, State of Rio de Janeiro, Brazil and at the electronic addresses of Vale (www.vale.com) the Comissão de Valores Mobiliários - CVM (www.cvm.gov.br), BM&FBOVESPA Bolsa de Valores, Mercadorias e Futuros (www.bmfbovespa.com.br); the Securities and Exchange Commission (*www.sec.gov*) and the Hong Kong Stock Market (*www.hkex.com.hk*).

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d. Identification and handling of conflicts of interests

According to Vale s Bylaws, the Board of Directors may set policies to avoid conflicts of interest between Vale and its shareholders or its managers, as well as on the adoption of provisions deemed necessary should conflicts of interest arise.

In addition, under terms of the Bylaws, the Governance and Sustainability Committee may issue reports related to potential conflicts of interest between Vale and its shareholders or its managers, upon request of the Board of Directors. The Committee may also analyze proposals to be considered by the Board of Directors.

e. Request for power-of-attorney by the directors to exercise voting rights

There are no rules, policies or practices for requesting powers-of-attorney by the directors to exercise voting rights in General Shareholders Meetings.

f. Necessary formalities to accept powers-of-attorney granted for shareholders, indicating whether Vale accepts powers from shareholders electronically

A shareholder who wishes to attend the General Meetings must provide identification and proof of Vale share ownership issued by the depositary financial institution.

Any shareholder may appoint a proxy, or more than one as the case may be, to attend meetings and vote in his name. If represented by proxy, the shareholder shall comply with the terms of Art. 126, Law No. 6,404/76, and must have been appointed by power-of-attorney no earlier than one year and qualify as a shareholder, manager, attorney who is a Member of the Order of Attorneys of Brazil, or be a financial institution. If the power-of-attorney is in a foreign language, it should be accompanied by corporate documents in the case of a legal entity, and of a letter of mandate duly translated into Portuguese, and notarized and with a consular stamp.

For the purposes of facilitating the Assemblies, shareholders represented by proxy may, at their exclusive discretion, deliver the documents within 72 (seventy two) hours prior to the Assemblies.

Vale does not accept powers-of-attorney granted electronically by shareholders.

g. Maintenance of Internet forums and pages intended to receive and share shareholder comments relating to meetings.

Vale does not keep Internet forums and pages for shareholders to receive and share comments relating to meeting minutes.

h. Transmission of meetings by live video or audio.

Vale does not transmit meetings by live video or audio.

i. Mechanisms allowing for inclusion of shareholders proposals.

There are no mechanisms allowing for inclusion on the agenda of proposals formulated by shareholders, except for those mechanisms contemplated in applicable law.

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12.3. Dates and newspapers of publication of information required by Law no. 6.404/76.

Fiscal Year	Publication	Newspaper State or Territory	Dates
12/31/2012	Financial Statements	Diário Comércio Indústria & Serviços SP	3/15/2013
		Diário Oficial do Estado RJ	3/15/2013
		Jornal do Commercio RJ	3/15/2013
	Call to General Shareholders Meeting to approve the Financial Statements	Diário Comércio Indústria & Serviços - SP	3/15/2013 3/16/2013 3/19/2013
		Diário Oficial do Estado RJ	3/15/2013; 3/18/2013 3/19/2013
		Jornal do Commercio RJ	3/15/2013; 3/18/2013 3/19/2013
	Minutes of General Shareholders Meeting that approved the Financial Statements	Diário Comércio Indústria & Serviços SP	4/18/2013
		Diário Oficial do Estado RJ	4/19/2013
		Jornal do Commercio RJ	4/18/2013
12/31/2011	Financial Statements	Diário Comércio Indústria & Serviços - SP	3/15/2012
		Diário Oficial do Estado RJ	3/15/2012
		Jornal do Commercio RJ	3/15/2012
	Call to the General Shareholders Meeting to approve the Financial Statements	Diário Comércio Indústria & Serviços - SP	3/19/2012 3/17/2012 3/18/2012
		Diário Comércio Indústria & Serviços - RJ	3/20/2012 3/21/2012
		Diário Oficial do Estado RJ	3/19/2012 3/20/2012 3/21/2012
		Jornal do Commercio RJ	3/19/2012 3/20/2012 3/21/2012
	Minutes of General Shareholders Meeting that approved the Financial Statements	Diário Comércio Indústria & Serviço SP	4/19/2012

		Diário Oficial do Estado RJ	4/19/2012
		Jornal do Commercio RJ	4/19/2012
12/31/2010	Financial Statements	Diário Comércio, Indústria e Serviços - SP	3/16/2011
		Diário Comércio Indústria SP	3/16/2011

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	Diário Oficial do Estado - RJ	3/16/2011
	Jornal do Commercio RJ	3/16/2011
Call to the General Shareholders Meeting to approve the Financial Statements	Diário Comércio Indústria & Serviços - SP	3/21/2011
		3/22/2011
	Diário Comércio, Indústria e Serviços - SP	3/18/2011
	Diário Oficial do Estado RJ	3/18/2011
		3/21/2011
		3/22/2011
	Jornal do Commercio - RJ	3/21/2011
		3/22/2011
Minutes of General Shareholders Meeting that approved the Financial Statements	Diário Comércio, Indústria e Serviços - SP	4/20/2011
	Diário Oficial do Estado RJ	4/20/2011
	Jornal do Commercio - RJ	4/20/2011

12.4 Board of Director s rules, policies and practices

a. Frequency of meetings

The Board of Directors ordinarily holds meetings once a month, and special meetings whenever called by the Chairman or, in his absence, by the Vice-Chairman or by any other two (2) board members.

Meetings of the Board of Directors should be held at the company headquarters, and may exceptionally be held elsewhere, and attendance may be by means of teleconference, videoconference or other communication means that ensures effective participation and voting authenticity.

b. Shareholder provisions establishing voting restrictions on members of the Board of Directors

See item 15.5 in this Reference Form.

c. Rules on identifying and handling conflicts of interest

Vale does not have a corporate policy on conflicts of interest in meetings of the Board of Directors, apart from the Brazilian laws applicable in this regard. Vale s practice is to require that a Member of the Board of Directors who considers himself to have a conflict leave the Board meeting during discussion and deliberation of the relevant matters and abstain from any material intervention.

In addition, Vale has a Code of Ethical Conduct that must be followed by the members of the Board of Directors and its Advisory Committees, members of the Fiscal Board, Officers, employees and interns, and controlled companies (provided that they are subject to the laws of the local jurisdiction). It prevails over, and serves as guidelines for, all Vale rules and policies.

Under the Code of Ethics, the abovementioned individuals are required to defend the interests of Vale in matters in which they are participating and avoid situations in which conflicts of interest with Vale may arise, and when that is not possible, to abstain from representing Vale in the matter in question, immediately disclosing the conflict to his immediate superior.

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Violations of the Code of Ethics, rules, and disciplinary standards of Vale subject violators to disciplinary penalties, which may include warning, suspension, and termination of employment. In applying disciplinary penalties, the nature and seriousness of the infraction shall be considered, noting Vale human resources rules and applicable law.

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12.5 Description of binding clause the for the resolution of conflicts the through arbitration

There are no binding clauses in the Bylaws for the resolution of conflicts by and between shareholders and Vale through arbitration.

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12.6 /8 Composition and professional experience of management and Board of Directors:

Name CPF Other positions held at the company	Age Occupation	Management body Elected position	Date of election Date of entry	Term Elected by comptroller
José Carlos Martins	63	Member of the Executive Board only	3/27/2013	5/25/2015
304.880.288-68	Economist	Executive Director of Iron metals and Strategy	3/28/2013	No
Executive Director of Iron Metals and Strategy of Vale (since Nov/2011) and member of the Information Disclosure Committee (since Nov 2011) and Member of the Executive Committee of Risk Management (since May/2010), where he served as Executive Director of Marketing, Sales and Strategy (May/2010-Nov/2011), Executive Director of Iron Metals (June 2005 to May/2010), and Executive Director of Participations and Business Development (April/2004 to May/2005).				
Luciano Siani Pires	43	Member of the Executive Board only	3/27/2013	5/25/2015
013.907.897-56	Mechanic Engineer	Executive Director of Finance and Investors Relations	3/28/2013	No
Permanent Member of the Financial Committee, the Risk Management Committee, and member of the Disclosure Committee				
Vânia Lucia Chaves Somavilla	53	Member of the Executive Board only	3/27/2013	5/25/2015
456.117.426-53	Civil Engineer	Executive Director of Human Resources, Health and Safety, Sustainability, and Power	3/28/2013	No
Executive Director of Human Resources, Health and Safety, Sustainability, and Power of Vale (since November/2011), where she served as Executive Director of Human Resources and Corporate Affairs of Vale (since November/2011), where she also worked as Executive Director of Human Resources and Corporate Affairs of Vale (May 2011 to November 2011). Started her professional career in Vale on 8/3//01 as General Manager of Trade and Power responsible for the management of the power portfolio and then Director of area on 3/15/04, where she served as Director of the Environment and Sustainable Development Department on 4/1/10.				
Murilo Pinto de Oliveira Ferreira	59	Member of the Executive Board	3/27/2013	5/22/2015
212.466.706-82	Business Administrator	10 President/Superintendent	3/28/2013	Yes
Managing Director of Vale, Member of the Strategic Committee and of Information Disclosure Committee of Vale (since May 2011). Started his professional career in Vale in 1977, where he served in different positions as Director of the Department of Aluminum (2003 to 2005), Executive Director of Participations and Business Development (2005 to 2006) and Executive Director of Nickel and Base Metals (2007 to 2008).				
Gerd Peter Poppinga	53	Member of the Executive Board only	3/27/2013	5/25/2015
604.856.637-91	Geologist	Executive Director of Base Metals and Information Technology	3/28/2013	No
Executive Director of Base Metals and Information Technology of Vale (since November 2011), where he also served as Executive Coordinator for Special Projects (Nov/1999 to Jan/2000).				

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Humberto Ramos de Freitas	59	Member of the Executive Board only	3/27/2013	5/25/2015
222.938.256-04	Engineer	Executive Director of Logistics and Mineral Research	3/28/2013	No
Executive Director of Logistics and Mineral Research of Vale (since November 2011), where he served as Director of Logistic Operations (Sep/2009 to Jun/2010); Director of Ports and Navigation (Jun/2008 to Aug/2009); Director of Ports and Navigation Operations (Mar/2008 to May/2008); Director of the Port Operation Department (Mar/2007 to Feb/2008); General manager of the Manganese Department (Sep to Dec/1997) and General manager of Port of de Ponta de Madeira (Mar/1993 to Sep/1997).				
Galib Abrahão Chaim	62	Member of the Executive Board only	3/27/2013	5/25/2015
132.019.646-20	Engineer	Executive Director of Deployment of Capital Projects	3/28/2013	No
Executive Director of Deployment of Capital Projects of Vale (since November 2011), where he served as Director of the department of Coal Projects for projects in Australia, Mozambique, Indonesia and Zambia and Country Manager of Mozambique (2005 to 2011).				
Roger Allan Downey	46	Member of the Executive Board only	3/27/2013	5/25/2015
623.291.626-34	Administrator	Executive Director Fertilizers and Coal	3/28/2013	No
Executive Director of Fertilizers and Coal of Vale (since May 2012), where he served as Manager of Strategic Marketing Iron Ore (2002 to 2005).				
Francisco Ferreira Alexandre	50	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
301.479.484-87	Civil Engineer	Executive Director of Operations and Marketing for Fertilizers and Coal	4/17/2013	Yes
N/A				
João Batista Cavaglieri	57	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
394.850.647-72	Operating Support Technician	22 - Board of Directors (permanent)	4/17/2013	No
N/A				
Hidehiro Takahashi	57	Member of the Board of Directors only	3/27/2013	Until 2015 General Shareholder s Meeting
949.725.917-49	Economist	23 - Board of Directors (deputy)	3/28/2013	Yes
N/A				
José Mauro Mettrau Carneiro of Cunha	63	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholder s Meeting
299.637.297-20	Engineer		4/17/2013	Yes

N/A	22 - Board of Directors (permanent)

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Luciano Galvão Coutinho	66	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholder s Meeting
636.831.808-20	Economist	22 - Board of Directors (permanent)	4/17/2013	Yes
Member of the Strategy Committee				
Luiz Carlos de Freitas	60	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholder s Meeting
659.575.638-20	Accountant	23 - Board of Directors (deputy)	4/17/2013	Yes
Member of the Controller Committee				
Mário da Silveira Teixeira Júnior	67	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
113.119.598-15	Bank employee	21 Vice-President Board of Directors	4/17/2013	Yes
Member of the Strategic Committee				
Oscar Augusto de Camargo Filho	75	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
030.754.948-87	Lawyer	22 - Board of Directors (permanent)	4/17/2013	Yes
Member of the Strategic Committee and Executive Development Committee				
Caio Marcelo de Medeiros Melo	40	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
376.763.691-34	Economist	23 - Board of Directors (deputy)	4/17/2013	Yes
N/A				
Eduardo Ferreira Jardim Pinto	50	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
226.158.813-53	Railroad worker	23 - Board of Directors (deputy)	4/17/2013	No
N/A				
Renato de Cruz Gomes	60	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
426.961.277-00	Engineer	22 - Board of Directors (permanent)	4/17/2013	Yes
Member of the Governance and Sustainability Committee				

Sandro Kohler Marcondes	48	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
485.322.749-00	Bank employee	23 - Board of Directors (deputy)	4/17/2013	Yes

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N/A				
Robson Rocha	54	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
298.270.436-68	Administrator	22 - Board of Directors (permanent)	4/17/2013	Yes
Member of the Executive Development Committee				
Nelson Henrique Barbosa Filho	43	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
009.073.727-08	Economist	22 - Board of Directors (permanent)	4/17/2013	Yes
N/A				
Fuminobu Kawashima	60	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
057.477.947-79	Economist	22 - Board of Directors (permanent)	4/17/2013	Yes
N/A				
Marco Geovanne Tobias of Silva	44	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
263.225.791-34	Economist	23 - Board of Directors (deputy)	4/17/2013	Yes
N/A				
Hayton Jurema da Rocha	55	Member of the Board of Directors only	4/17/2013	Until 2015 General Shareholders Meeting
153.667.404-44	Bank employee	23 - Board of Directors (deputy)	4/17/2013	Yes
N/A				
Eduardo de Oliveira Rodrigues Filho	58	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
442.810.487-15	Engineer	23 - Board of Directors (deputy)	4/17/2013	Yes
Member of the Financial Committee				
Luiz Maurício Leuzinger	71	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
009.623.687-68	Engineer	23 - Board of Directors (deputy)	4/17/2013	Yes

Member of the Financial Committee and the Executive Development Committee				
Dan Antonio Marinho Conrado	48	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
754.649.427-34	Bank employee	23 - Board of Directors (deputy)	4/17/2013	Yes

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Member of the Board of Directors and member of Vale s Strategic Committee since October 2012				
Marcel Juviniano Barros	50	Member of the Board of Directors	4/17/2013	Until 2015 General Shareholders Meeting
029.310.198-10	Bank employee	23 - Board of Directors (deputy)	4/17/2013	Yes
Member of the Executive Development Committee				
Aníbal Moreira dos Santos	74	Fiscal Board	4/17/2013	Until 2014 General Shareholders Meeting
011.504.567-87	Accounting Technician	43 Fiscal Board (permanent) Elected by Comptroller	4/17/2013	Yes
N/A				
Valeriano Durval Guimarães Gomes	59	Fiscal Board	4/17/2013	Until 2014 General Shareholders Meeting
313.022.547-15	Economist	46 - FISCAL BOARD(deputy) Elected by Comptroller	4/17/2013	Yes
N/A				
Marcelo Amaral Moraes	45	Fiscal Board	4/17/2013	Until 2014 General Shareholders Meeting
929.390.077-72	Graduate in Economy	43 - FISCAL BOARD(permanent) Elected by Comptroller	4/17/2013	Yes
N/A				
Oswaldo Mário Pêgo de Amorim Azevedo	71	Fiscal Board	4/17/2013	Until 2014 General Shareholders Meeting
005.065.327-04	Engineer	46 - FISCAL BOARD(deputy) Elected by Comptroller	4/17/2013	Yes
N/A				
Arnaldo José Vollet	64	Fiscal Board	4/17/2013	Until 2014 General Shareholders Meeting
375.560.618-68	Graduate in Mathematics	43 - FISCAL BOARD(permanent) Elected by Comptroller	4/17/2013	Yes
N/A				
Antônio Henrique Pinheiro Silveira	48	Fiscal Board	4/17/2013	Until 2014 General Shareholders Meeting

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010.394.107-07 N/A	Economist	44 - FISCAL BOARD (permanent) Elected by preferred shareholders	4/17/2013	No

[redacted]

Paulo Fontoura Valle	49	Fiscal Board	4/17/2013	Until 2014 General Shareholders Meeting
311.625.571-49 N/A	Graduate in Physical Education	47 - FISCAL BOARD (deputy) Elected by preferred shareholders	4/17/2013	No

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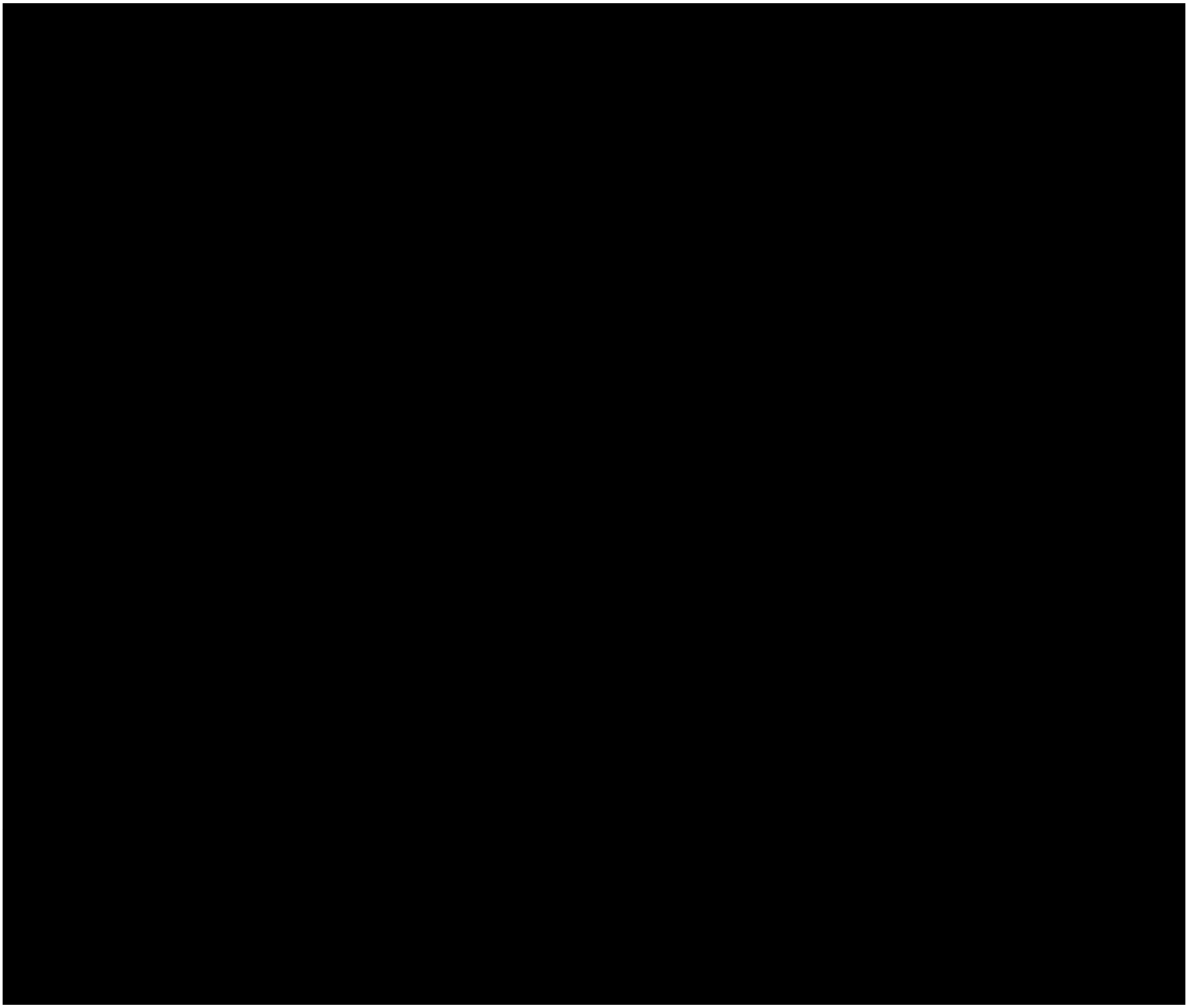

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12.7 Composition of the statutory committees, and auditing, financial and compensation committees.

Name CPF Other positions held at company	Committee Other committees	Position Other positions	Occupation Age	Date of election Date of entry	Term
Efrem José Daumas Junior	Risk Management Committee	Committee Member (permanent)	Geologist	11/14/2011	November/2013
521.085.206-78			45	11/14/2011	
Director of the Department of Operational Improvement					
José Carlos Martins	Risk Management Committee	Permanent Member	Economist	11/14/2011	5/252015
304.880.288-68			63	11/14/2011	
Executive Director of Iron Metals and Strategy					
Luciano Siani Pires	Risk Management Committee	Others	Mechanic Engineer	7/25/2012	5/25/2015
013.907.897-56		Permanent Member of the Financial Committee and Member of the Disclosure Committee	43	8/1/2012	
Executive Director of Finance, and IR					
Roberto Moretzsohn	Risk Management Committee	Committee Member (permanent)	Engineer	09/01/2012	January/2014
691.554.107-15			52	09/01/2012	
Sônia Zagury	Risk Management Committee	Committee Member (permanent)	Economist	11/14/2011	November/2013
934.316.517-04			45	11/14/2011	
Global Director of Treasury and Finance					
Eduardo de Oliveira Rodrigues Filho	Financial Committee	Committee Member (permanent)	Engineer	4/24/2013	Until 2015 General Shareholders Meeting
442.810.487-15			58	4/24/2013	
Deputy Member of the Board of Directors					
Luciana Freitas Rodrigues	Financial Committee	Committee Member (permanent)	Statistics and Actuarial	4/24/2013	Until 2015 General Shareholders Meeting
759.395.847-72			46	4/24/2013	
N/A					
Luciano Siani Pires	Risk Management Committee	Others	Mechanic Engineer	4/24/2013	Until 2015 General Shareholders Meeting
013.907.897-56			43	4/24/2013	

Executive Director of Finance, and IR		Permanent Member of the Financial Committee and Member of the Disclosure Committee			
Luiz Maurício Leuzinger	Financial Committee	Committee Member (permanent)	Engineer	4/24/2013	Until 2015 General

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		Member of the Executive Development Committee(permanent)			Shareholders Meeting
009.623.687-68			71	4/24/2013	
Deputy Member of the Board of Directors and Member of the Executive Development Committee					
Clovis Torres Junior	Other Committees	Committee Member (permanent)	Lawyer	7/18/2011	Undetermined
423.522.235-04	Information Disclosure Committee		45	7/18/2011	
General Consultant					
Dan Antonio Marinho Conrado	Other Committees	Committee Member (permanent)	Bank Employee	4/24/2013	Until 2015 General Shareholders Meeting
754.649.427-34	Strategic Committee		48	4/24/2013	
General Consultant					
Gilmar Dalilo Cezar Wanderley	Other Committees	Committee Member (permanent)	Bank Employee	4/24/2013	Until 2015 General Shareholders Meeting
084.489.987-90			33	4/24/2013	
Marcel Juviniano Barros	Other Committees	Committee Member (permanent)	Bank Employee	4/24/2013	Until 2015 General Shareholders Meeting
029.310.198-10	Executive Development Committee		50	4/24/2013	
Member of the Board of Directors					
Laura Bedeschi Rego de Mattos	Other Committees	Committee Member (permanent)	Chemical Engineer	4/24/2013	Until 2015 General Shareholders Meeting
253.585.728-64	Executive Development Committee		37	4/24/2013	
Tatiana Boavista Barros Heil	Other Committees	Committee Member (permanent)	Chemical Engineer	4/24/2013	Until 2015 General Shareholders Meeting
028.694.677-70	Governance and Sustainability Committee		39	4/24/2013	
Luciano Galvão Coutinho	Other Committees	Committee Member (permanent)	Economist	4/24/2013	Until 2015 General Shareholders Meeting

636.831.808-20	Strategic Committee		66	4/24/2013	
Member of the Board of Directors					
Luciano Siani Pires	Other Committees	Other	Economist	7/25/2012	5/25/2015
		Permanent Member			
013.907.897-56	Disclosure Committee		66	8/1/2012	
Executive Director of Finance, and Investors Relations and Permanent Member of the Financial Committee and the Risk Management Committee					
Luiz Carlos de Freitas	Other Committees	Permanent Committee Member	Accountant	4/24/2013	Until 2015 General

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					Shareholders Meeting
659.575.638-20	Comptroller Committee		60	4/24/2013	
Deputy Member of the Board of Directors					
Luiz Maurício Leuzinger	Other Committees	Committee Member (permanent)	Engineer	4/24/2013	Until 2015 General Shareholders Meeting
		Member of the Executive Development Committee(permanent)			
009.623.687-68	Executive Development Committee		71	4/24/2013	
Deputy Member of the Board of Directors and Member of the Financial Committee					
Marcelo Botelho Rodrigues	Other Committees	Committee Member (permanent)	Accountant	9/13/2010	Undetermined
871.892.327-53	Disclosure Committee		50	9/13/2010	
Comptroller					
Mário da Silveira Teixeira Júnior	Other Committees	Committee Member (permanent)	Bank Employee	4/24/2013	Until 2015 General Shareholders Meeting
113.119.598-15	Strategic Committee		67	4/24/2013	
Vice Chairman of the Board of Directors					
Murilo Pinto de Oliveira Ferreira	Other Committees	Others	Business Administrator	4/24/2013	Until 2015 General Shareholders Meeting
212.466.706-82	Strategic Committee	Permanent Member	59	4/24/2013	
Managing Director of Vale and Permanent Member of the Disclosure Committee					
Murilo Pinto de Oliveira Ferreira	Other Committees	Others	Business Administrator	5/19/2011	5/22/2015
212.466.706-82	Information Disclosure Committee	Permanent Member	59	5/20/2011	
Managing Director of Vale and Permanent Member of the Disclosure Committee					
Oscar Augusto de Camargo Filho	Other Committees	Committee Member (permanent)	Lawyer	4/24/2013	Until 2015 General Shareholders Meeting
030.754.948-87	Strategic Committee	Member of the Executive Development Committee	75	4/24/2013	
Member of the Board of Directors and Member of the Executive Development Committee					
Oscar Augusto de Camargo Filho	Other Committees	Committee Member (permanent)	Lawyer	4/24/2013	Until 2015 General

					Shareholders Meeting
030.754.948-87	Executive Development Committee		75	4/24/2013	
Member of the Board of Directors and Member of the Strategic Committee					
Paulo Ricardo Ultra Soares	Other Committees	Others	Graduate in Law	4/24/2013	Until 2015 General Shareholders Meeting
[redacted]					
Paulo Roberto Ferreira de Medeiros	Other Committees	Others	Administrator	4/24/2013	Until 2015 General Shareholders Meeting

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024.772.117-49	Comptroller Committee	Independent Member	71	4/24/2013	
N/A					
Renato de Cruz Gomes	Other Committees	Committee Member (permanent)	Engineer	4/24/2013	Until 2015 General Shareholders Meeting
426.961.277-00	Governance and Sustainability Committee		60	4/24/2013	
Member of the Board of Directors					
Ricardo Simonsen	Other Committees	Others	Mechanical Engineer	4/24/2013	Until 2015 General Shareholders Meeting
733.322.167-91	Governance and Sustainability Committee	Independent Member	51	4/24/2013	
N/A					
Roberto of Cunha Castello Branco	Other Committees	Committee Member (permanent)	Economist	6/19/2002	Undetermined
031.389.097-87	Information Disclosure Committee		67	6/19/2002	
Non-Statutory Director of Relations with Investors					

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12.9 Existence of relationship (as a spouse or significant other) or kinship to the second degree related to managers of the company, entities controlled by the Company, and controlling shareholders

Justification for not completing the chart:

Each and every Member of the Board of Directors, Executive Board and Fiscal Board of Vale have declared, individually for all lawful purposes, that he or she is not related (as spouse, or significant other) or has any other kindred relationship to the second degree to (i) managers of Vale; (ii) managers of companies controlled directly or indirectly by Vale; (iii) Vale s direct or indirect controlling shareholders; and (iv) the members of management of Vale s direct or indirect controlled entities.

In addition, all members of the Board of Directors, the Executive Board and of the Fiscal Board of companies controlled directly or indirectly by Vale have declared individually for all lawful purposes that the y have no conjugal or stable union or kinship to the second degree with entities controlled directly or indirectly by Vale.

12.10 Subordination, rendering of services or control relationships the between directors/officers, entities controlled by the Company, controlling shareholders, and others

Justification for not completing the chart:

All members of the Board of Directors, the Executive Board, and the Fiscal Board have declared individually for all legal purposes that there have been no relationships for rendering services or for control, maintained over the past three (3) fiscal years between them and (i) a company controlled directly or indirectly by Vale; (ii) the controllers, direct or indirect, of Vale; or (iii) relevant suppliers, clients, debtors, or creditors of Vale, its controlled companies or its controllers.

12.11 Agreements, including insurance policies for the payment or reimbursement of expenses incurred by directors/officers

Vale maintains a global coverage liability insurance policy for Directors and Administrators with a group of insurers lead by Zurich Insurance, Plc, through payment of a premium of US$ 1,495,800.00, in effect between 3/1/2013 and 3/1/2014, and with total indemnity limit corresponding to US$ 200 million. This insurance covers members of the Board of Directors, Executive Board, Fiscal Board, and any other body mentioned in the Bylaws, as well as certain employees at the management and strategic levels, in both the Company and its subsidiaries (collectively referred to as the Insured). The policy covers financial losses resulting from claims against the Insured for acts or omissions in the exercise of their functions of employment. The policy, in addition to contemplating the repair of damages caused to third parties, Vale, and its controlled companies brought by government agencies, also covers agreements previously authorized by the insurer for the purpose of bringing to a close judicial or administrative suits. In addition, the policy provides coverage for payment of defense costs of the Insured, if and when incurred. In addition to those coverage mentioned above, the insurance provides additional guarantees for liability cases that may affect spouses, heirs, successors, legal representatives, and persons designated by Vale to act as managers of external entities.

12.12 Other relevant information

Regarding item 12.3, Vale hereby notes that the publication of the notice to shareholders about availability of financial statements in 2011, 2010 and 2009, was not done, under the terms in § 5, in article 133 in the Law of Corporations, considering such documents were published up to one (1) month before the general shareholders meeting.

Information about quorum and installation of shareholders meetings

Below we present information regarding installation of our shareholders meetings in the last three fiscal years:

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Date	5/7/2013
Type of Shareholders Meeting	Extraordinary
Installation upon second calling	Yes
Installation Quorum	The meeting was installed with shareholders representing 57% of our voting capital.

Date	4/17/2013
Type of Shareholders Meeting	General
Installation upon second calling	No
Installation Quorum	The meeting was installed with shareholders representing 61.24% of our voting capital.

Date	4/18/2012
Type of Shareholders Meeting	General
Installation upon second calling	No
Installation Quorum	The meeting was installed with shareholders representing 54.51% of our voting capital.

Date	5/18/2011
Type of Shareholders Meeting	Special
Installation upon second calling	Yes
Installation Quorum	The meeting was installed with shareholders representing 52.91% of our voting capital.

Date	4/19/2011
Type of Shareholders Meeting	General
Installation upon second calling	No
Installation Quorum	The meeting was installed with shareholders representing 60.35% of our voting capital.

Date	6/22/2010
Type of Shareholders Meeting	Special
Installation upon second calling	No
Installation Quorum	The meeting was installed with shareholders representing 51.23% of our voting capital.

Date	5/19/2010
Type of Shareholders Meeting	Special
Installation upon second calling	Yes
Installation Quorum	The meeting was installed with shareholders representing 52.20% of our voting capital.

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Date	4/27/2010
Type of Shareholders Meeting	General
Installation upon second calling	No
Installation Quorum	The meeting was installed with shareholders representing 57.31% of our voting capital.

Date	1/22/2010
Type of Shareholders Meeting	Special
Installation upon second calling	No
Installation Quorum	The meeting was installed with shareholders representing 52.36% of our voting capital.

Information on items 12.6 and 12.8

Regarding items 12.6 and 12.8, Vale reports that at the meeting of the Board of Directors held on March 27, 2013, there was approval for the reappointment of all members of the Executive Board to serve for another two-year management term, to be counted from the end of the former management term, which closed on May 25, 2013.

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13.1 Description of the compensation policy or practices for the Executive Board, the Statutory and Non-Statutory Boards, the Fiscal Committee, the Statutory Committees and the Audit, Risk, Finance, and Compensation Committees, covering the following topics:

a. Objectives of the compensation policy or practices

According to the provisions of Article 10, Paragraph 3 of the Bylaws of the Company, the Managers of the Company s overall and annual compensation is set at the Annual General Meeting, and takes into account their responsibilities, the time they dedicate to their functions, their competence and professional reputation, and the market value of their services.

Vale is one of the largest diversified mining companies in the world, and one of the largest private companies in Latin America. It has operations in over thirty countries, a market value of some US$111 billion, over 400,000 shareholders on every continent, and around 85,000 employees and 51,000 subcontracted workers active in its operations.

Clearly, Vale is a global company of great complexity and magnitude, whose administration requires an in-depth understanding of its area of business and market, combined with total commitment.

As a global company, Vale is aware that retaining and engaging the right professionals in key roles, especially Executive Directors, is critical for its success in the mid and long terms. As such, the market is always the benchmark from the perspective of global competition, taking into account important competitors, such as the top mining companies and other large global enterprises.

The main factor for compensation and the main objective of the compensation policy adopted is the company s performance and growth in the short, medium, and long terms, in line with its strategic plan, while also assuring shareholder value. The compensation policy therefore prioritizes serving the company s business.

b. Composition of compensation packages

(i) Description of the different elements of the compensation packages and the objectives of each of them.

Executive Board

Fixed Monthly Compensation

Pró-labore. The compensation for the members of the Executive Board is made up exclusively of the payment of a fixed monthly fee. This fixed compensation is designed to remunerate the services of each board member, within their scope of responsibility as members of Vale s Executive Board. The overall annual compensation for the Managers, including the members of the Executive Board, the Statutory Board, the Fiscal Council and the advisory committees is set at the annual general meeting and distributed by the Executive Board.

Direct and indirect benefits. The members of the Executive Board do not have the right to direct or indirect benefits.

Participation on Committees. The members of the Executive Board do not have the right to remuneration for participation on committees.

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Variable Remuneration

The members of the Executive Board do not have the right to variable remuneration, including bonuses, profit sharing, participation in meetings, and commissions.

Post-employment Benefits

The members of the Executive Board do not have the right to post-employment benefits.

Benefits Resulting from the Termination of Holding a Position

The members of the Executive Board do not have the right to benefits resulting from the termination of holding a position.

Remuneration Based on Shares

The members of the Executive Board do not have the right to remuneration based on shares.

Fiscal Board

Fixed Monthly Compensation

Pro-labore. The compensation for the members of the Fiscal Board is made up of a fixed monthly fee (honorarium), excluding benefits, representation monies, and profit shares. Deputies are compensated when they undertake the function when a seat is vacant, or when the member of the board in question is absent or unable to exercise the function. The aim of the fixed compensation is to remunerate the services of each board member, within their scope of responsibility as members of the Company s Fiscal Board. The fees for Fiscal Board members are adjusted in line with any adjustment made to the Executive Directors compensation.

Direct and Indirect Benefits. Members of the Fiscal Board do not have the right to direct or indirect benefits.

Participation on Committees. The members of the Fiscal Board do not have the right to remuneration for participation on committees.

Variable Remuneration

The members of the Fiscal Board do not have the right to variable remuneration, including bonuses, profit sharing, participation in meetings, and commissions.

Post-employment Benefits

The members of the Fiscal Board do not have the right to post-employment benefits.

Benefits Resulting from the Termination of Holding a Position

The members of the Fiscal Board do not have the right to benefits resulting from the termination of holding a position.

Remuneration Based on Shares

The members of the Fiscal Board do not have the right to remuneration based on shares.

Advisory Committees

Fixed Monthly Compensation

The members of the Advisory Committees do not have the right to fixed remuneration, direct and indirect benefits.

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Variable Remuneration

The members of the Advisory Committees do not have the right to bonuses, profit sharing, or commissions.

Participation in Meetings. The compensation for the members of the Executive Board Advisory Committees (Strategy Committee, Finance Committee, Executive Development Committee, Financial Control Committee, and Governance and Sustainability Committee) is paid for each meeting an executive effectively takes part in. As set forth in Paragraph 2 of Article 15 of Vale s Bylaws, the committee members who are Vale Managers will not be eligible for extra compensation for sitting on the committees. The aim of the compensation is to remunerate each member s services within the scope of their responsibility as members of the Company s respective Advisory Committees. The compensation for Advisory Committee members is adjusted in line with the compensation paid to members of the Executive Board.

Post-employment Benefits

The members of the Advisory Committees do not have the right to post-employment benefits.

Benefits Resulting from the Termination of Holding a Position

The members of the Advisory Committees do not have the right to benefits resulting from the termination of holding a position.

Remuneration Based on Shares

The members of the Advisory Committees do not have the right to remuneration based on shares.

Executive Board (Statutory Directors)

Fixed Monthly Compensation

Pro-labore. The aim of the fixed monthly compensation is to remunerate the services rendered by the statutory directors within the scope of their individual responsibility in managing the Company.

Direct and indirect benefits. Package of benefits that is compatible with market practices, including private healthcare, hospital and dental care, a designated car with driver, private pension scheme and life insurance. Not only are the benefits in line with market practices, but they are also aimed at assuring the executives and their dependents peace of mind when it comes to fundamental issues such as healthcare.

Participation on Committees. The members of the Executive Board do not have the right to remuneration for participation on committees.

Variable compensation

Bonus. Variable annual payment (bonus) based on the Company s earnings and defined by indicators and objectives, measurable targets derived from the strategic plan, and the annual budget approved by the Executive Board. While assuring market competitiveness, the main aim of the bonus is to acknowledge an executive s contribution to the Company s performance and earnings.

Others. The members of the Executive Board do not have the right to profit sharing, participation in meetings, or commissions.

Post-employment benefits

Statutory Directors may have medical healthcare, hospital and dental care paid by the Company up to 12 (twelve) months after their termination, in order to allow them to look for alternatives outside the corporative plan, plus life insurance and financial benefit as mentioned on item 13.12 of this Reference Form.

Benefits Resulting from the Termination of Holding a Position

The members of the Executive Board do not have the right to benefits resulting from the termination of holding a position.

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Compensation based on shares

Long-Term Incentive Plan (ILP, as per the acronym in Portuguese)

Long-term variable payment based on the Company s expected performance in the future, with the aim of retaining and engaging the Executives and aligning them with the future vision of the Company. The program was introduced in 2007, the first payment having been made in January 2010. For further details, please see item 13.4 of the Reference Form.

Matching

Like the ILP, Matching is a variable, long-term form of compensation based on the Company s expected performance in the future. The main aim of this scheme is to encourage an owner s vision , while also helping to retain executives and reinforce a sustained performance culture. For further details, see item 13.4 of the Reference Form.

Items 13.1 (a) (ii), (c) and (d) below, describe in detail the methodology for calculation used to determine the value of the compensation of the Executive Board, pursuant to what is above stated.

Non-Statutory Board

The non-statutory directors are Company employees with a labor contract. There are two groups of executives that fall into this category: (i) level 5 directors, who normally hold global corporate or business unit functions; and (ii) level 4 directors, who generally hold regional or local corporate functions, or are responsible for operational systems or areas in the Company s different businesses.

Fixed Monthly Compensation

Fixed Salary. Monthly amount based on the Company s organizational chart. The aim of the fixed salary is, as set out in the labor contract signed by each executive, to remunerate the services rendered within the scope of responsibility attributed to them in undertaking their respective duties within the company.

Direct and indirect benefits. Package of benefits compatible with market practices, including medical healthcare, hospital and dental care, private pension scheme (Valia) and life insurance. Not only are the benefits in line with market practices, but they are also aimed at assuring the executives and their dependents peace of mind when it comes to fundamental issues such as healthcare. For more information about the

Complementary Benefits plan (Valia), see item 13.10 of the Reference Form.

Participation on Committees. The non-statuary directors do not have the right to remuneration for participation on committees.

Variable compensation

Profit Sharing. Variable annual payment (PR) based on the Company s earnings and defined by indicators and objective, measurable targets derived from the strategic plan, and the annual budget approved by the Executive Board. While assuring market competitiveness, the main aim of the profit sharing is to acknowledge an executive s contribution to the Company s performance and earnings. Item 13.1 (d) below, describes in detail the methodology for calculation used to determine the value of the compensation of the Non-Executive Board, pursuant to what is stated below.

Post-employment benefits

Non-Statutory Directors may have medical healthcare, hospital and dental care paid by the Company for up to twelve (12) months after their termination, in order to allow them to look for alternatives outside the corporative plan.

Benefits Resulting from the Termination of Holding a Position

Non-Statutory Directors receive customized service of orientation for outplacement to be performed by the specialist company appointed by Vale.

Compensation based on shares

Long-Term Incentive Plan (ILP)

Long-term variable payment based on the Company s expected performance in the future, with the aim of

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retaining and engaging the executives and aligning them with the future vision of the Company. The program was introduced in 2007, the first payment having been made in January 2010. For further details, please see item 13.4 of the Reference Form.

Matching

Like the ILP, Matching is a variable, long-term form of compensation based on the Company s expected performance in the future. The main aim of this scheme is to encourage an owner s vision , while also helping to retain executives and reinforce a sustained performance culture. For further details, see item 13.4 of the Reference Form.

Non-Statutory Committees

The Company also has two non-statutory committees: the Risk Committee and the Communication Committee. All the seats on the non-statutory committees are held by the Company s statutory and non-statutory directors, who do not receive any extra compensation for this function.

(ii) Proportion of each element to make up the total compensation package

The approximate proportions of each element in the total compensation for 2012 were as shown in the table below:

Compensation Composition	Executive Board	Fiscal Board	Statutory Board	Non-Statutory Board	Advisory Committees
Fixed Monthly Compensation					
Wage or Pro-Labore	100.00%	100.00%	30.38%	36.00%	
Direct or Indirect Benefits			13.04%	10.00%	
Advisory Committees					100.00%
Others					
Variable Compensation					
Bonus			34.95%	41.00%	
Profit Sharing					
Participation in Meetings					
Commissions					
Others					
Benefits Post Labor					
Resignation					
Compensation Based on Shares					
Long-term incentive			12.04%	7.00%	
Matching			9.60%	6.00%	
TOTAL	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

(iii) Methodology for the calculation and readjustment of each compensation element

Executive Board

The fixed compensation of the members of the Executive Board is represented by the fixed monthly payments (fees). For deputy members the amount established is 50% of the value received by the regular members of the Executive Board. Values are annually defined according to the market practice, checked through referential researches made by specialized companies, where the effect of the compensation for similar companies can be observed. There is no variable compensation for the members of the Executive Board.

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Fiscal Board

The fixed compensation of the members of the Fiscal Board is represented by the fixed monthly payments (fees), having as reference the value of 10% of the compensation that, in average, is granted to the Statutory Directors, not computing the benefits, representation monies, and profits participation. The members of the Fiscal Board also have the right to a refund for transport and lodging expenses that are necessary in performing their duties. There is no variable compensation for the members of the Fiscal Board.

Advisory Committees

The variable compensation of the members of the Advisory Committees of the Executive Board (Strategic Committee, Financial Committee, Executive Performance Committee, Controlling Committee, and Governance and Sustainability Committee) is represented by the payment of a certain value for the participation in meetings equal to the monthly value granted to the deputy members of the Executive Board. There is no additional compensation for the members of the Committees that are managers of Vale. There is also no fixed compensation for the members of the Advisory Committees or any other type of variable compensation.

Executive (Statutory) Directors

The fixed compensation of the Statutory Directors is represented by the fixed monthly payment, defined according to the market practice, checked through referential researches made by specialized companies where the effect of the compensation for similar companies can be observed, and annually readjusted by the National Broad Consumer Price Index (IPCA). Direct and indirect benefits (medical healthcare, hospital care, dental care, car with driver, private pension plan, and life insurance) to which they have the right, are calculated according to the market practice checked through referential research made by specialized companies where the effect of the concession of benefits for the participating companies of similar size can be observed. The bonus of the Statutory Directors is calculated based on the earnings of the Company, and may vary between 0% and 150% of the annual fixed payment; this depends on the goals set forth for each fiscal year.

The methodology for the calculation of the compensation based on shares of the Statutory Directors takes into account a percentage of the bonus of 75% for the Executive Directors and 125% for the President Director, of the value actually paid to this title, and transformed, as reference, into a number of common shares issued by Vale (virtual shares), and considered the average quotation of the common shares issued by the Company during the last 60 trading days of the last fiscal year. If the executive member remains in the Company, by the end of three years the number of virtual shares is transformed into a monetary value by the average quotation of the common shares issued by the Company of the last 60 trading days of the third year. The program also considers the performance of the Company regarding a group of similar companies (peer group). If Vale is first in this ranking, the value settled is increased in 50%. This is a decreasing percentage, so in the 5th position the value remains unchanged, and as of the 15th position, there is no payment.

Prior to the Long Term Incentive Plan (ILP), the Company kept a program that was specific for the Statutory Board and its percentage of allocation was 36% of the bonus, with payment after a period of 13 months. This program was replaced by the current ILP, and its last payment was made on January, 2009.

The methodology for the calculation of the Matching determines that the executive member may allocate 30% or 50% of his short-term variable payment (bonus) to the purchase of class A preferred shares issued by Vale, through a pre-defined financial institution, under market conditions and without any benefit offered by Vale, on the days set forth in the plan. The bonus percentage that can be allocated by each executive member for participating in the Matching Plan is defined as of the valuation of his performance and potential. This shall be granted to those executive members who acquire shares as per the terms and conditions set forth in the Matching Plan and who three years after the acquisition, still remain linked to Vale and have kept the ownership of all the shares acquired. At the end of the three years period, the administrators shall end the cycle, and shall give a calculation of effective compliance of the conditions set forth in the manual of the above referred plan. If the terms of the plan have been adhered to, the Company shall pay the executive member a liquid value, as a prize, equal to the amount he bought in shares of the program. After the payment of the incentive, the executive members can freely negotiate the preferred shares issued by Vale to be acquired in order to become eligible for the Matching Plan and in agreement with the law in force.

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Non-statutory Board

The fixed compensation for the Non-statutory Directors is represented by a fixed monthly payment, with a labor contract. Every year, the Department of Human Resources and the Governance of Vale hire specialized companies to perform analysis of compensations; the analysis is made pursuant to the complexity of each position compared in the market. The comparison is made with national and multinational companies of several sectors, and the equalization of the comparison is through a scoring system. This system of valuation is known as Hay System, a system of points created by The Hay Group that evaluates the weight of the positions based on their complexity, allowing their global ranking. This system is the most used worldwide for this purpose. There is no predetermined index or periodicity for the readjustment of the fixed compensation and when there are readjustments, they are based on the market evolution and the merit of the executive member.

Direct and indirect benefits (medical healthcare, hospital care, dental care, private pension plan, and life insurance) to which they have right, are calculated according to the market practice checked through referential research made by specialized companies where the effect of the concession of benefits for similar companies can be observed. The component of the bonus of the Non-statutory Directors is calculated based on the earnings of the Company, and it ranges from 0, in the event the performance of the Company does not reach the goals set forth for each fiscal year, to 18 fixed monthly compensations for level 5 directors, and 15 fixed monthly compensations for level 4 directors. The readjustment of the variable compensation is aligned with the readjustment of wages, because the base of the variable compensation is a multiplier of the base wage.

The methodology for the calculation of the compensation based on shares of the Non-statutory Directors takes into account a percentage of the bonus of 75% for level 5 directors and 50% for level 4 directors of the value actually paid to this title. This amount is transformed, as reference, into a number of common shares issued by Vale (virtual shares), and considered the average quotation of the common shares issued by the Company during the last 60 trading days of the last fiscal year. If the executive member remains in the Company, by the end of three years the number of virtual shares is transformed into a monetary value by the average quotation of the common shares issued by the Company of the last 60 trading days of the third year. The program also considers the performance of the Company regarding a group of similar companies (peer group). If Vale is first in this ranking, the value settled is increased in 50%. This is a decreasing percentage, so in the 5th position the value remains unchanged, and as of the 15th position, there is no payment.

The methodology for the calculation of the Matching determines that the executive member may allocate 30% or 50% of his short-term variable payment (bonus) to the purchase of class A preferred shares issued by Vale, through a pre-defined financial institution, under market conditions and without any benefit offered by Vale, on the days set forth in the plan. The bonus percentage that can be allocated by each executive member for participating in the Matching Plan is defined as of the valuation of his performance and potential. This shall be granted to those executive members who acquire shares as per the terms and conditions set forth in the Matching Plan and who three years after the acquisition, still remain linked to Vale and have kept the ownership of all the shares acquired. At the end of the three years period, the administrators shall end the cycle, and shall give a calculation of effective compliance of the conditions set forth in the manual of the above referred plan. If the terms of the plan have been adhered to, the Company shall pay the executive member a liquid value, as a prize, equal to the amount he bought in shares of the program. After the payment of the incentive, the executive members can freely negotiate the preferred shares issued by Vale to be acquired in order to become eligible for the Matching Plan and in agreement with the law in force.

(iv) Reasons that justify the composition of the compensation

The reasons for the composition of the compensation are an incentive to improve the management and the permanence of the executive members of the Company, fixing earnings based on commitment to long-term results and short-term performance. Vale adopts a composition model of the compensation that concentrates a significant payment of the total compensation in the variable components (both of short- and long-term), being a part of the policy of risk and earnings sharing with the main executive members of the Company.

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c. Main performance indicators that are taken into consideration when determining each element of the compensation package

All the definitions concerning the compensation are sustained by market research, supported by one or more specialized consultancies. Regarding Statutory Directors, these definitions are also assessed by the Executive Development Committee and approved by the Executive Board.

The main performance indicators are the Company s performance in comparison with its main competitors (top mining companies), its cash flow return on gross investments (CFROGI), as well as general productivity, safety, and environmental indicators.

The performance indicators regarding the long-term incentive plans (ILP and Matching) are: the value of the Company s shares in the market and its position in relation to a group of twenty companies of similar size (peer group).

d. How the compensation package is structured to reflect the development of the performance indicators

The executives performance targets, which are used to structure the payment of their profit share (bonus), derive from the strategic plan and the budget, both approved by the Executive Board, which are reviewed each year to sustain the targets and expected results for the Company.

Further, the long-term incentive payments (ILP and Matching scheme) are pegged to some of the Company s performance indicators: the price of its shares on the market and its position relative to its peer group (a group of twenty companies of a similar size).

e. How the compensation policy is aligned with the Company s short-, medium- and long-term interests

As already stressed, the main factor for compensation is the Company s performance and growth in the short, medium, and long term, in line with its strategic plan, while also assuring shareholder value. As such, the long-term incentives are structured with a three-year elimination period, and mirror changes in the Company s performance indicators.

f. Existence of compensation supported by subsidiaries, and direct or indirect affiliates or holding companies

One of the Company s executive directors is also the President and Chief Executive Officer of Vale Canada Limited, a Vale subsidiary. As such, part of this executive s fixed compensation and benefits, corresponding to 60% and 23% of total compensation paid by Vale Canada Limited.

g. Existence of any compensation or benefits connected to the occurrence of a given corporate event, such as the sale of the Company s controlling interest

There is no compensation or benefit for the members of the Fiscal or Executive Boards, Statutory or Non-Statutory Committees, or the Executive or Non-Executive Board that is in any way connected to the occurrence of any corporate event.

13.2 Total Compensation of the executive board, statutory board, and fiscal board

Total Compensation Estimates for the Current Fiscal Year to be Ended on December 31, 2013 Annual Amounts

	Executive Board	Statutory Board	Fiscal Board	Total
Number of members	21.00	9.00	3.00	33.00
Annual fixed compensation (in R$)				
Salaries or pro-labore fees	R$ 4,419,600	R$ 22,027,472.00	R$ 1,584,960.00	R$ 28,032,032.00
Direct and indirect benefits		R$ 8,984,112.00		R$ 8,984,112.00
Compensation for participation in Committees				
Other	R$ 1,104,900.00	R$ 5,120,610.00	R$ 396,240.00	R$ 6,621,750.00
Description of other fixed compensation	Vale s Portion of Social Security [INSS]	Vale s Portion of Social Security [INSS]	Vale s Portion of Social Security [INSS]	
Variable Compensation (in R$)				
Bonus		R$ 18,413,629.00		R$ 18,413,628.60
Profit share				

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Total Compensation Estimates for the Current Fiscal Year to be Ended on December 31, 2013 Annual Amounts

	Executive Board	Statutory Board	Fiscal Board	Total
Compensation for participation in meetings				
Commissions				
Other		R$ 8,772,791.00		R$ 8,772,791.00
Description of other variable compensation		Vale s Portion of Social Security [INSS]		
Post-employment benefits				
Employment termination benefits		R$ 27,046,231.00		R$ 27,046,231.00
Stock-based compensation		R$ 2,625,455.00		R$ 2,625,455.00
Observation	The field Number of members includes the regular members (11) and deputy members (10) of the Executive Board.	1. The field Stock-based compensation includes the amounts paid in the ILP program and the estimated amounts of the Matching. 2. The amount presented in the field Bonus refers to the effective value paid in the 2013 fiscal year relative to the goals of the 2012 fiscal year. Two of Vale s Executive Directors started their term during the 2012 fiscal year and, thus, the amount paid as bonus, exclusively to these executives was calculated pro rata temporis, following the rules of the plan. Regarding the other directors who worked during the entire 2012 fiscal year, the bonus was paid in full.	The field Number of members includes the regular members (4) of the Fiscal Board	
Total amount of compensation	R$ 5,524,500.00	R$ 92,990,300.00	R$ 1,981,200.00	R$ 100,496,000.00

Total Compensation for the Fiscal Year Ended on December 31, 2012 Annual Amounts

	Executive Board	Statutory Board	Fiscal Board	Total

Number of members	21.00	8.00	4.00	33.00
Annual fixed compensation (in R$)				
Salaries or pro-labore fees	3,865,666.33	18,316,233.77	963,240.38	23,145,140.49
Direct and indirect benefits		7,859,706.16		7,859,706.16
Compensation for participation in Committees				
Other	966,416.58	4,077,327.49	240,810.10	5,284,554.17
Description of other fixed compensation	Vale s Portion of Social Security [INSS]	Vale s Portion of Social Security [INSS]	Vale s Portion of Social Security [INSS]	
Variable Compensation (in R$)				

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Total Compensation for the Fiscal Year Ended on December 31, 2012 Annual Amounts

	Executive Board	Statutory Board	Fiscal Board	Total
Bonus		21,069,159.02		21,069,159.02
Profit share				
Compensation for participation in meetings				
Commissions				
Other		12,144,530.35		12,144,530.35
Description of other variable compensation		Vale s Portion of Social Security [INSS]		
Post-employment benefits				
Employment termination benefits		28,267,686.85		28,267,686.85
Stock-based compensation		13,043,485.97		13,043,485.97
Observation	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly. in accordance with Circular Letter CVM/SEP 001/13, 2 - The field Number of members includes the regular members (11) and deputy members (10) of the Executive Board,	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly. in accordance with Circular Letter CVM/SEP 001/13, 2 The amounts shown in the field Stock-based compensation includes the amounts paid in the ILP and the Matching programs. 3. The amount presented in the field Bonus refers to the effective value paid in the 2012 fiscal year relative to the goals of the 2011 fiscal year.	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly. in accordance with Circular Letter CVM/SEP 001/13, 2 - The field Number of members includes the regular members (4) of the Fiscal Board,	
Total amount of compensation	4,832,082.92	104,778,129.60	1,204,050.48	110,814,263.00

Total Compensation for the Fiscal Year Ended on December 31, 2011 Annual Amounts

	Executive Board	Statutory Board	Fiscal Board	Total
Number of members	21.00	7.75	4.00	32.75
Annual fixed compensation				
Salaries or pro-labore fees	R$ 3,929,627.00	R$ 16,970,226.00	R$ 921,600.00	R$ 21,821,453.00
Direct and indirect benefits		R$ 6,153,124.00		R$ 6,153,124.00
Compensation for participation in Committees				
Other	R$ 785,925.00	R$ 3,698,510.00	R$ 184,320.00	R$ 4,668,755.00
Description of other fixed compensation	Vale s Portion of Social Security [INSS]	Vale s Portion of Social Security [INSS]	Vale s Portion of Social Security [INSS]	
Variable Compensation				
Bonus		R$ 24,703,613.00		R$ 24,703,613.00
Profit share				
Compensation for participation in meetings				
Commissions				

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Other		R$ 28,224,426.00		R$ 28,224,426.00
Description of other variable compensation		Vale s Portion of Social Security [INSS]		
Post-employment benefits				
Employment termination benefits		R$ 98,741,007.00		R$ 98,741,007.00
Stock-based compensation		R$ 17,677,508.00		R$ 17,677,508.00
Observation	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly, in accordance with Circular Letter CVM/SEP 001/13. 2 - The field Number of members includes the regular members (11) and deputy members (10) of the Executive Board.	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly, in accordance with Circular Letter CVM/SEP 001/13. 2 The payment regarding Employment termination benefits was made to ex-Executive Directors who left the Company during the fiscal year ending on December 31, 2011 3 The amounts shown in the field Stock-based compensation includes the amounts paid in the ILP and the Matching programs described in items 13.1 and 13.4. 4. The amount presented in the field Bonus refers to the effective value paid in the 2013 fiscal year relative to the goals	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly, in accordance with Circular Letter CVM/SEP 001/13. 2 - The field Number of members includes the regular members (4) of the Fiscal Board.	

		of the 2012 fiscal year.		
Total amount of compensation	R$ 4,715,552.00	R$ 196,168,414.00	R$ 1,105,920.00	R$ 201,989,886.00

Total Compensation for the Fiscal Year Ended on December 31, 2010 Annual Amounts

	Executive Board	Statutory Board	Fiscal Board	Total
Number of members	21.00	7.00	4.00	32.00
Annual fixed compensation (in R$)				
Salaries or pro-labore fees	R$ 1,790,070.00	R$ 15,203,831.00	R$ 913,600.00	R$ 17,907,501.00
Direct and indirect benefits	0.00	R$ 5,687,041.00	0.00	R$ 5,687,041.00
Compensation for participation in Committees	0.00	0.00	0.00	0.00
Other	R$ 358,014.00	R$ 3,618,550.00	R$ 182,720.00	R$ 4,159,284.00
Description of other fixed compensation	Vale s Portion of Social Security [INSS]	Vale s Portion of Social Security [INSS]	Vale s Portion of Social Security [INSS]	
Variable Compensation (in R$)				

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Bonus	0.00	R$ 20,902,658.00	0.00	R$ 20,902,658.00
Profit share	0.00	0.00	0.00	0.00
Compensation for participation in meetings	0.00	0.00	0.00	0.00
Commissions	0.00	0.00	0.00	0.00
Other	0.00	R$ 10,228,455.00	0.00	R$ 10,228,455.00
Description of other variable compensation		Vale s Portion of Social Security [INSS]		
Post-employment benefits	0.00	0.00	0.00	0.00
Employment termination benefits	0.00	R$ 3,584,251.00	0.00	R$ 3,584,251.00
Stock-based compensation	0.00	R$ 30,239,619.00	0.00	R$ 30,239,619.00
Observation	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly, in accordance with Circular Letter CVM/SEP 001/13. 2 - The field Number of members includes the regular members (11) and deputy members (10) of the Executive Board.	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly, in accordance with Circular Letter CVM/SEP 001/13. 2 The payment regarding Employment termination benefits was made to an ex-Executive Director who left the Company during the fiscal year ended in 2010. 3 The amounts shown in the field Stock-based compensation includes the amounts paid in the ILP and the Matching programs described in items 13.1 and 13.4. 4. The amount presented in the field Bonus refers to the effective	1 The number of members corresponds to the average over the year of the cited administrative entity as determined monthly, in accordance with Circular Letter CVM/SEP 001/13. 2 - The field Number of members includes the regular members (4) of the Fiscal Board.	

		value paid in the 2013 fiscal year relative to the goals of the 2012 fiscal year.		
Amount of compensation	R$ 2,148,084.00	R$ 89,464,405.00	R$ 1,096,320.00	R$ 92,708,809.00

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13.3 Variable Compensation of the executive board, statutory board, and fiscal board

Estimates for the fiscal year to be ended on December 31, 2013

	Executive Board	Statutory Board	Fiscal Board	Total
Number of members		9.00		9.00
Bonus (in R$)				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan		R$ 33,041,208.00		R$ 33,041,208.00
Amount estimated by the compensation plan if pre-established goals are met		R$ 22,027,472.00		R$ 22,027,472.00
Profit share (in R$)				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan				
Amount estimated by the compensation plan if pre-established goals are met				

Fiscal year ended on December 31, 2012

	Executive Board	Statutory Board	Fiscal Board	Total
Number of members (1)		8.00		8.00
Bonus (in R$)				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan		R$ 27,474,351.00(2)		R$ 27,474,351.00
Amount estimated by the compensation plan if pre-established goals are met		R$ 18,316,234.00(3)		R$ 18,316,234.00
Amount effectively paid at the close of the fiscal year		R$ 21,069,159. 02(4)		R$ 21,069,159.02
Profit share (in R$)				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan				
Amount estimated by the compensation plan if pre-established goals are met				
Amount effectively paid at the close of the fiscal year				

Notes:

(1) Corresponds to the number of executive officers and board members, as applicable, to whom variable compensation was paid at the close of the fiscal year, in accordance with the provision of Circular Letter CVM/SEP 01/2013.

(2) Amount represents 150% of Fixed Annual Compensation paid to the Statutory Board.

(3) Amount represents 100% of Fixed Annual Compensation paid to the Statutory Board.

(4) The amount presented in the field Bonus refers to the effective value paid in the 2012 fiscal year relative to the goals of the 2011 fiscal year.

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Fiscal year ended on December 31, 2011

	Executive Board	Statutory Board	Fiscal Board	Total
Number of members (1)		10.00		10.00
Bonus (in R$)				
Minimum amount estimated by compensation plan		0		0
Maximum amount estimated by compensation plan		34,464,477.00(2)		34,464,477.00
Amount estimated by the compensation plan if pre-established goals are met		21,675,771.00(3)		21,675,771.00
Amount actually acknowledged in the formal results		24,703,613.00(4)		24,703,613.00
Profit share (in R$)				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan				
Amount estimated by the compensation plan if pre-established goals are met				
Amount actually acknowledged in the formal results				

Notes:

(1) Corresponds to the number of executive officers and board members, as applicable, to whom variable compensation was paid at the close of the fiscal year, in accordance with the provision of Circular Letter CVM/SEP 01/2013.

(2) Amount represents 150% of Fixed Annual Compensation paid to the Statutory Board.

(3) - Amount represents 100% of Fixed Annual Compensation paid to the Statutory Board.

(4) The amount presented in the field Bonus refers to the effective value paid in the 2011 fiscal year relative to the goals of the 2010 fiscal year.

Fiscal year ended on December 31, 2010

	Executive Board	Statutory Board	Fiscal Board	Total
Number of members (1)		7.00		7.00
Bonus (in R$)				
Minimum amount estimated by compensation plan				
Maximum amount estimated by compensation plan		26,615,414.00(2)		26,615,414.00
Amount estimated by the compensation plan if pre-established goals are met		17,743,609.00(3)		17,743,609.00
Amount actually acknowledged in the formal results		20,902,658.00(4)		20,902,658.00
Profit share (in R$)				

Minimum amount estimated by compensation plan	
Maximum amount estimated by compensation plan	
Amount estimated by the compensation plan if pre-established goals are met	
Amount actually acknowledged in the formal results	

Notes:

(1) Corresponds to the number of executive officers and board members, as applicable, to whom variable compensation was paid at the close of the fiscal year, in accordance with the provision of Circular Letter CVM/SEP 01/2013.

(2) Amount represents 150% of Fixed Annual Compensation paid to the Statutory Board.

(3) - Amount represents 100% of Fixed Annual Compensation paid to the Statutory Board.

(4) The amount presented in the field Bonus refers to the effective value paid in the 2010 fiscal year relative to the goals of the 2009 fiscal year.

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13.4 With respect to the stock-based compensation plan for the Executive Board and the Statutory Board, which was in force in the last fiscal year and which is estimated for the current fiscal year:

The Company has two stock-based compensation plans for the Statutory Board, which do not extend to the Executive Board. Neither plan grants permission for Company stock purchasing option, but only the payment of a bonus as per the market quotation for the Company stock.

a. General Terms and Conditions

• **Long-Term Incentive Plan (ILP):** Long-term variable payment, created in 2007, based on the Company s expected performance in the future. The sum is defined as 75% of the bonus (profit share) for Executive Directors and 125% of the bonus (profit share) for the calculated on the value effectively paid for said bonus, and transformed, as a reference, into a number of ordinary stock issued by Vale (virtual shares), considering the average price for the Company s ordinary stock over the last sixty trading days of the previous year. Should the executive remain with the Company, at the end of three years, the number of virtual shares is transformed into a pecuniary value according to the average price of the ordinary stock issued by the Company over the last sixty trading days in the third year. The program also compares the Company s performance against twenty other companies of a similar size (peer group); should Vale come out first in this ranking, the amount calculated is increased by 50%. This percentage is reduced on a sliding scale, such that from first to fifth place, the percentage remains the same, and as of 15th place in the ranking, no payment is made.

• ***Matching*:** Like the ILP, Matching is a variable, long-term form of compensation, created in 2008, based on the Company s expected performance in the future. To be eligible to take part in the Matching scheme, an executive may allocate up to 50% of his/her bonus (short-term variable compensation) for the purchase of Class A preferred stock issued by Vale, through the mediation of a pre-defined financial institution, under market conditions, on the days set in the scheme, without any benefit being offered by Vale. The percentage bonus that may be allocated per executive for participating in the Matching scheme is based on an assessment of their performance and potential. Those executives who acquire shares under the terms and conditions of the Matching scheme on the stipulated dates and who are still in the employment of Vale three years after they were acquired and who have kept the ownership of all the shares purchased will be eligible for a cash prize. At the end of the three-year period, when the cycle reaches its conclusion, the Managers check that the terms of the scheme, as set forth in the manual, have been followed. Assuming that the terms of the plan have been observed, the Company will pay the executive a net value, as a prize, worth the amount they had purchased in shares as part of the scheme. After the incentive has been paid, the executives are free to sell the preferred stock issued by Vale that they had acquired at the beginning of the Matching scheme, in compliance with existing legislation. The main aim of this scheme is to encourage an owner s vision , while also helping to retain executives and reinforce a sustained performance culture.

b. Major Plan Objectives

The major objectives of both the ILP and the Matching Plan are retention of the Company`s major executives, keep them engaged to the Company and encourage the stockholder view , so that they become committed to mid and long terms results.

c. How the plans contribute for the achievement of these objectives

Both the ILP and the Matching Plan promote the alignment of the stockholders` and the statutory board members` interests, as they ensure gains for the executives only as long as there are gains for the Company as well.

d. Where the plans fit into the Company`s compensation policy

Both the ILP and the Matching Plan fit into Vale`s compensation policy once they constantly foster a competitiveness level that complies with the Company business and the competitive market context. Both the ILP and the Matching Plan have been designed upon the support provided by specialized consulting services and upon the consideration of domestic and international market trends and moves.

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e. How the plans promote the alignment between management and the Company interests at short, mid and long term

The design of both the ILP and the Matching Plans lies upon the executive s annual performance and its baseline is the short term variable compensation for assignation of incentives. The Plans also comprise the Company`s performance rate upon company stocks fluctuated value in the past three years and the Company`s performance relative to other companies of similar size within the same industry and the same reference period. Thus, the plans align the short-, medium- and long-term interests of both the managers and the Company.

f. Maximum number of comprised stocks

Not applicable. No stock purchasing option is granted within the scope of either the ILP or the Matching Plan. The number of virtual ordinary stocks granted as reference within the scope of ILP plan varies according to each executive s short term variable compensation and the average quotation for Vale s issued stocks within a specific number of stock market floor sessions prior to such grant. Within the scope of the Matching Plan, an executive is given the option to allocate 30 or 50% of his/her bonus to purchase the Company s class A preferred stocks and so become eligible for the plan, taking into consideration the evaluation of his/her performance and potential.

g. Maximum number of options to be granted

Not applicable. No stock purchasing option is granted within the scope of either the ILP or the Matching Plan.

h. Stock purchasing conditions

Not applicable. No Company stock purchasing option is granted to executives within the scope of either the ILP or the Matching Plan. Once assessed, the amount owed to executives within the scope of the Plans is paid in cash.

i. Criteria for stock pricing or option reference period

Not applicable. As no stock purchasing option is granted within the scope of either Plan, it makes no sense setting criteria for stock pricing or option reference period.

With respect to the ILP Plan, the amount owed to executives is calculated as per the valuation of a given number of Vale`s virtual ordinary stocks within the period of the past three years, and is based upon the stock average initial quotation of the last 60 stock market floor sessions prior to the incentive grant, and the stock average final quotation at the closing of the last 60 stock market floor sessions of the third year. This figure is then multiplied by a Company performance factor in relation to a peer group comprising 20 similar-size global companies. Face to the Company ranking within the latter global companies group, the ILP Plan may have its amount expanded by up to 50% or it might be even zeroed.

However, for the Matching Plan, the net amount to be paid to executives as incentives is calculated upon the number of Company class A preferred stocks purchased by the executive in order to become eligible to the Plan.

j. Criteria for establishing the reference period

Not applicable. As mentioned above, no Company stock purchasing option is granted within the scope of either the ILP or the Matching Plan. Therefore, there is no reference period. However, both the ILP and the Matching Plan pre-establish that the payment of incentives be made after a three-year grace period.

k. Liquidation conditions

Both the ILP and the *Matching* Plan pre-establish that premiums be paid in cash.

l. Restrictions to stock transfer

With respect to the Matching Plan, the executive will lose his/her right to the premium if he/she transfers, within the three-year period, any Company preferred stock that is plan-bonded.

Not applicable to the ILP Plan, though, once this Plan`s participants are not required to retain their stockholding position in the company nor are they granted any stocks within the scope of the Plan.

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m. Criteria and events that, upon occurrence, shall result in the plan suspension, change or extinction

With respect to the Matching Plan, any transference of Vale s issued preferred stocks that are plan-bonded before the three-year grace period or the executive s severance generate the extinction of any rights whatsoever that they would otherwise be entitled to within the scope of the Plan.

However, with respect to the ILP Plan, the executive s severance generates the extinction of any rights whatsoever that they would otherwise be entitled to within the scope of the Plan.

n. Effects generated by the Company s Board and Committee Manager s departure upon his/her rights as provided by the stock-based compensation plan

As the Plan works as a retention mechanism, if the Manager resigns, he/she shall lose all his/her rights to the long-term plans ILP and Matching. In case the Manager s contract is rescinded or not renewed by the Company, the participant shall receive the values he had purchased prior to the contract rescission or termination date.

13.5 Participation in stock, quotas, or other convertible securities held by executive officers and fiscal council members by board or committee

a. The number of stocks or quotas issued by the Company, held directly or indirectly, in Brazil or overseas, and other stock-convertible securities by its board of directors members, statutory directors, or fiscal council members, grouped by board or committee, on the closing day of the last accounting reference period:

Shares issued by VALE S.A.

Stockholders 12/31/2012	**Common**	**Preferred**
Board of Directors	1,043	48,244
Executive Officers	29,300(*)	534,891(*)
Fiscal Council	0	0
Total	**30,343**	**583,135**

(*) Including 20,000 VALE shares and 111,414 VALE.P shares owned as *American Depositary Receipts* (ADRs), at the New York Stock Exchange.

b. The number of stocks or quotas and other securities convertible into shares or quotas issued by the direct or indirect controllers of the Company, held directly or indirectly, either in Brazil or overseas, by its board of directors members, statutory directors, or fiscal council members, grouped by board or committee, on the closing day of the last accounting reference period:

Shares issued by VALEPAR S.A.

[redacted]		
Board of Directors	0	0
[redacted]		
Fiscal Council	0	0
[redacted]		

Shares issued by BNDES Participações S.A.

[redacted]		
Board of Directors	0	0
[redacted]		
Fiscal Council	0	0
[redacted]		

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Shares Issued by LITEL PARTICIPAÇÕES S.A.

Stockholders 12/31/2012	Common	Preferred
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
Total	**0**	**0**

Shares issued by BRADESPAR S.A.

Stockholders 12/31/2012	Common	Preferred
Board of Directors	400	0
Executive Officers	0	0
Fiscal Council	0	0
Total	**400**	**0**

Shares issued by MITSUI & CO., LTD

Stockholders 12/31/2012	Common	Preferred
Board of Directors	41,636	0
Executive Officers	0	0
Fiscal Council	0	0
Total	**41,636**	**0**

Shares issued by ELETRON S.A

Stockholders 12/31/2012	Common	Preferred
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
Total	**0**	**0**

Shares issued by OPPORTUNITY ANAFI PARTICIPAÇÕES S.A

Stockholders 12/31/2012	Common	Preferred

Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
Total	**0**	**0**

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Shares issued by BELAPART S.A

Stockholders 12/31/2012	Common	Preferred
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
Total	**0**	**0**

Shares issued by VALETRON S.A.

Stockholders 12/31/2012	Common	Preferred
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
Total	**0**	**0**

c. The number of stocks or quotas and other securities convertible into shares or quotas issued by the Company s subsidiaries, held directly or indirectly, either in Brazil or overseas, by its board of directors members, statutory directors, or fiscal council members, grouped by board or committee, on the closing day of the last accounting reference period:

Shares issued by FERROVIA CENTRO ATLÂNTICA S.A.

Stockholders 12/31/2012	Common	Preferred
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
Total	**0**	**0**

Shares issued by FERROVIA NORTE SUL S.A.

Stockholders 12/31/2012	Common	Preferred
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
Total	**0**	**0**

Shares issued by LOG-IN LOGÍSTICA INTERMODAL S/A

Stockholders 12/31/2012	**Common**	**Preferred**
Board of Directors	0	0
Executive Officers		0
Fiscal Council	0	0
Total		**0**

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Shares issued by MRS LOGÍSTICA S.A.

Stockholders 12/31/2012	Common	Preferred
Board of Directors	0	0
Executive Officers	0	1
Fiscal Council	0	0
Total	**0**	**1**

Shares issued by PT VALE INDONESIA TBK

Stockholders 12/31/2012	Common	Preferred
Board of Directors	0	0
Executive Officers	0	0
Fiscal Council	0	0
Total	**0**	**0**

13.6 With respect to stock-based compensation, as acknowledged in the past three fiscal years and as estimated for the current fiscal year, for executive board and the statutory board.

The Matching Plan was established in 2008 and provides for a three-year grace period, so, the incentive within the scope of this Plan shall only be due by the Company three years after its application. Therefore, the value shown below for this program represents an estimation pursuant to the projection of increase of the shares price up to the date foreseen for the payment. The first benefit of the program was paid in 2011.

The information below that refers to the Long Term Incentive Plan (ILP), described in detail in 13.4 (i), does not include or grant stock purchasing option, because it is based on the quotations of the Company s common shares in order to define the value in kind to be paid as incentive to the executive directors; that is why most of the information appearing in the following tables does not apply.

Estimates for the fiscal year to be ended on December 31, 2013

	Executive Board	Statutory Board	Total
Number of members		9.00	9.00
With respect to each option grant			
Grant date		January and March 2010(1)	
Number of granted options			
Deadline for options to become redeemable		January and March 2013(2)	

Deadline for redeeming options		
Grace period for stock transfer		
Pondered average price within accounting reference period for each of the following option groups:		
Outstanding at the beginning of the accounting reference period		
Not redeemed throughout accounting reference period		
Redeemed within accounting reference period		
Expired within accounting reference period		
Fair option price on grant date	2,625,455.00(3)	2,625,455.00(3)
Potential dilution in case all granted options were redeemed		

Notes:

(1) In January 2010 the ILP cycle began and in March 2010 the Matching cycle began.

(2) In January 2013 the ILP cycle ended and in March 2013 the Matching cycle will end.

(3) Paid values regarding the ILP Program (cycle ended in January, 2013) and values estimated for the future payment of the Matching Program, in March 2013

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Fiscal year ended on December 31, 2012

	Executive Board	Statutory Board	Total
Number of members (1) [sic]		9.00	9.00
With respect to each option grant			
Grant date		January and April 2009(2)	
Number of granted options			
Deadline for options to become redeemable		January and April 2012(3)	
Deadline for redeeming options			
Grace period for stock transfer			
Pondered average price within accounting reference period for each of the following option groups:			
Outstanding at the beginning of the accounting reference period			
Not redeemed throughout accounting reference period			
Redeemed within accounting reference period			
Expired within accounting reference period			
Fair option price on grant date		R$ 13,024,236.00(4)	R$ 13,024,236.00(4)
Potential dilution in case all granted options were redeemed			

Notes:

(1) Corresponds to the number of executive officers and board members, as applicable, to whom remuneration was attributed based on shares as shown in the fiscal year statements, in accordance with Circular Letter CVM/SEP 01/2013.

(2) In January 2009 the ILP cycle began and in March 2009 the Matching cycle began.

(3) In January 2012 the ILP cycle ended and in March 2012 the Matching cycle ended.

(4) Paid values regarding the ILP and Matching Programs (cycle ended 2012).

Fiscal year ended on December 31, 2011

	Executive Board	Statutory Board	Total
Number of members (1) [sic]		7.75	7.75
With respect to each option grant			
Grant date		January and April 2008(2)	
Number of granted options			
Deadline for options to become redeemable		January and April 2011(3)	
Deadline for redeeming options			
Grace period for stock transfer			
Pondered average price within accounting reference period for each of the following option groups:			

Outstanding at the beginning of the accounting reference period		
Not redeemed throughout accounting reference period		
Redeemed within accounting reference period		
Expired within accounting reference period		
Fair option price on grant date	R$ 17,677,508.00(3)	R$ 17,677,508.00(3)
Potential dilution in case all granted options were redeemed		

Notes:

(1) Corresponds to the number of executive officers and board members, as applicable, to whom remuneration was attributed based on shares as shown in the fiscal year statements, in accordance with Circular Letter CVM/SEP 01/2013.

(2) In January 2008 the ILP cycle began and in April 2008 the Matching cycle began.

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(3) In January 2011 the ILP cycle ended and in April 2011 the Matching cycle ended.

(4) Paid values regarding the ILP and Matching Programs (cycle ended 2011).

Fiscal year ended on December 31, 2010

	Executive Board	Statutory Board	Total
Number of members (1)		7.00	7.00
With respect to each option grant			
Grant date		January 2007	
Number of granted options			
Deadline for options to become redeemable		January 2010	
Deadline for redeeming options			
Grace period for stock transfer			
Pondered average price within accounting reference period for each of the following option groups			
Outstanding at the beginning of the accounting reference period			
Not redeemed throughout accounting reference period			
Redeemed within accounting reference period			
Expired within accounting reference period			
Fair option price on grant date		R$ 30,239,619.00(2)	R$ 30,239,619.00
Potential dilution in case all granted options were redeemed			

Note:

(1) Corresponds to the number of executive officers and board members, as applicable, to whom remuneration was attributed based on shares as shown in the fiscal year statements, in accordance with Circular Letter CVM/SEP 01/2013.

(2) Values paid regarding the ILP cycle ended in January 2010.

13.7 With respect to outstanding options for the Executive Board and the Statutory Board at the closing of the last accounting reference period

Not applicable, since the remuneration plans based on Company shares do not include the granting of options for the purchase of shares. See items 13.4 and 13.6.

13.8 With respect to redeemed and delivered options for the Executive Board and the Statutory Board, in the past three accounting reference periods

Not applicable, since the remuneration plans based on Company shares do not include the granting of options for the purchase of shares. See items 13.4 and 13.6.

13.9 Summary of relevant information aiming at a broader understanding of data presented under items 13.6 through 13.8 above, as well as an explanation of the pricing method used for stock and option values

Not applicable. See items 13.4 and 13.6.

13.10 Private Pension Funds in force granted to members of the executive board and the statutory board

Pursuant to contract provisions, the Company pays for both the employer s and the employee s share, up to 9% of the fixed compensation, to Valia Fundação Vale do Rio Doce de Seguridade Social (Vale do Rio Doce Social Security Foundation), or to any other private pension fund chosen by the Statutory Board member.

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At Valia, the minimum required age for a retirement plan is 45 years of age, after having contributed for the given plan for a minimum grace period of 5 years.

Valia   Fundação Vale do Rio Doce de Seguridade Social

	Executive Board	Statutory Board	Total
Number of members (1)		[7] members	
Plan name	Benefits Plan	Vale Mais (Plano de Benefício Vale Mais)	
Number of managers that are eligible for retirement benefits		[6, of which (i) 2 with Normal Retirement Income; and (ii) 3 with Early Retirement Income; and (iii) 1 with Differed Benefit Income through Retirement.]	
Eligibility for early retirement		- be at least 45 years old; - have at least 5 years of uninterrupted participation in VALIA, counting from the most recent date of entering the Vale Mais Plan (except for participants migrating from the Defined Benefit Plan (Benefits Plan now closed) to the Vale Mais Plan; - have rescinded the labor contract with the employer or have lost the position of administrator.	
Updated value of accumulated contributions to social security and pension plan up until the closing of the last accounting reference period, minus amounts paid by managers		R$ 7,916,952.30(2)	
Total accumulated amount of contributions paid throughout the last accounting reference period, minus amounts paid by managers		R$ 1,282,571.37(3)	

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Eligibility for advanced redemption and conditions	- The active participant who, on the date of rescission of his/her labor contract with the employer or on the date of loss of the position of administrator, does not opt to become an independent contributor or associate, nor opts for the institution of portability and is not enjoying benefits from the Vale Mais Plan, is eligible to receive the redemption. The amount of the redemption shall be equal to: 100% of the participant s account + 1% of the employer s account per month of normal, ordinary contribution made by the participant to the Vale MaisPlan up to a maximum of 80% of this account.

(1) Corresponds to the number of executive officers and board members, as applicable, enrolled in the benefits plan, in accordance with Circular Letter CVM/SEP 01/2013.

(2) Amount corresponding to the sum of the Accounts of the Employer belonging to the participants on 12/31/2012.

(3) Amount corresponding to the sum of the ordinary contributions made by the employer in the name of each one of the participants during the year of 2012.

	Executive Board	Statutory Board	Total
Number of members (1)		1 member	
Plan name		Benefits Plan Valiaprev	
Number of managers that are eligible for retirement benefits			
Eligibility for early retirement		- be at least 45 years old;	

- have at least 5 years of uninterrupted participation in VALIA, counting from the most recent date of entering the Vallaprev Plan (

- have rescinded the labor contract with the employer or

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	have lost the position of administrator.
Updated value of accumulated contributions to social security and pension plan up until the closing of the last accounting reference period, minus amounts paid by managers	R$ 153,930.02(2)
Total accumulated amount of contributions paid throughout the last accounting reference period, minus amounts paid by managers	R$ 143,151.63(3)
Eligibility for advanced redemption and conditions	- The active participant who, on the date of rescission of his/her labor contract with the employer or on the date of loss of the position of administrator, does not opt to become an independent contributor or associate, nor opts for the institution of portability and is not enjoying benefits from the Valiaprev Plan, is eligible to receive the redemption.
	The amount of the redemption shall be equal to: 100% of the participant s account + 1% of the employer s account per month of normal, ordinary contribution made by the participant to the ValiaprevPlan up to a maximum of 80% of this account.

(1) Corresponds to the number of executive officers and board members, as applicable, enrolled in the benefits plan, in accordance with Circular Letter CVM/SEP 01/2013.

(2) Amount corresponding to the sum of the Accounts of the Employer belonging to the participants on 12/31/2012.

(3) Amount corresponding to the sum of the ordinary contributions made by the employer in the name of each one of the participants during the year of 2012.

13.11 Maximum, minimum, and average individual compensation of the executive board, statutory board, and the fiscal board

Justification for not filling out this table.

Information not disclosed due to injunctive relief granted in the case of ordinary proceedings No. 2010.51.01.002888-5 by the Honorable Judge of the 5th Circuit Court of Federal Justice of Rio de Janeiro to IBEF/RJ, to which Vale and the company executives are linked. The concerning preliminary injunction continuous in force due to the decision of the High Court of Justice in MC 17350 RJ.

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13.12 Compensation or indemnity mechanisms applicable to managers in the occurrence of dismissal or retirement

The contracts signed by members of the Statutory Board have a provision for indemnity for contract rescission or non-renewal once such events are generated by the Company. In the latter case, the following amounts and conditions are provided for: (i) 2 (two) fixed annual salaries for the Managing President; or (ii) 1 (one) fixed annual salary for the Statutory Directors. Indemnity payment is made in four quarterly payments and conditioned to a non-compete agreement to be in force for the following 12 months.

The contract also provides for a Life Insurance Policy, whose insured capital is worth twice as much as the fixed annual compensation, for the purposes of death or total permanent disability (TPD).

No other type of contract agreement is drawn with members of the Executive Board or the Fiscal Board. The same applies to any other types of contract agreements, life insurance policies or any other instruments that might underlie compensation or indemnity mechanisms in case an executive is dismissed or retires.

1. Percentage of total compensation held by managers and members of the fiscal board that are somehow connected to controllers.

Board or Committee	Fiscal year ended on December 31, 2012
Executive Board	74.00%
Statutory Board	0.00%
Fiscal Board	15.00%

Board or Committee	Fiscal year ended on December 31, 2011
Executive Board	74.00%
Statutory Board	0.00%
Fiscal Board	15.00%

Board or Committee	Fiscal year ended on December 31, 2010
Executive Board	90.00%
Statutory Board	0%
Fiscal Board	14.00%

13.14 - Compensation paid to managers and members of the fiscal board, grouped by board, received for any purpose other than the function they perform.

No payments in the last three accounting reference periods of any other type rather than for the function they perform were made to any member of the Executive Board, of the Statutory Board, or the Fiscal Board.

13.15 Compensation paid to managers and members of the fiscal board acknowledged in the results released by direct or indirect affiliates, subsidiaries or companies under common control.

FISCAL YEAR ENDED ON 12/31/2012

	EXECUTIVE BOARD	STATUTORY BOARD	FISCAL BOARD	TOTAL
DIRECT AND INDIRECT CONTROLLING ENTITIES	0	0	0	0
COMPANIES CONTROLLED BY THE COMPANY	0	R$1,972,657.00(1) (Fixed annual compensation: R$1,189,560.00/ Direct and indirect benefits: R$783,097.00	0	R$ 1,972,657.00
COMPANIES UNDER COMMON CONTROL	0	0	0	0

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Note:

(1) The above amount refers to compensation paid to an Executive Manager working at our controlled company Vale Canada.

FISCAL YEAR ENDED ON 12/31/2011

	EXECUTIVE BOARD	STATUTORY BOARD	FISCAL BOARD	TOTAL
DIRECT AND INDIRECT CONTROLLING ENTITIES	0	0	0	0
COMPANIES CONTROLLED BY THE COMPANY	0	R$1,023,381.00(1) (Fixed annual compensation: R$766,330.00/ Direct and indirect benefits: R$257,051.00)	0	R$ 1,023,381.00
COMPANIES UNDER COMMON CONTROL	0	0	0	0

Note:

(1) The above amount refers to compensation paid to an Executive Manager working at our controlled company Vale Canada.

FISCAL YEAR ENDED ON 12/31/2010

	EXECUTIVE BOARD	STATUTORY BOARD	FISCAL BOARD	TOTAL
DIRECT AND INDIRECT CONTROLLING ENTITIES	0	0	0	0
COMPANIES CONTROLLED BY THE COMPANY	0	R$961,667.00(1) (Fixed annual compensation: R$698,809.00 / Direct and indirect benefits: R$262,858.00)	0	R$ 961,677.00
COMPANIES UNDER COMMON CONTROL	0	0	0	0

Note:

(1) The above amount refers to compensation paid to an Executive Manager working at our controlled company Vale Canada.

13.16 Other relevant information

Proposal for global compensation

The proposal for global compensation of the managers for the fiscal year 2013 was submitted to the General Annual Meeting intended to fix as a global sum the amount of up to R$ 101,000.00 (one hundred and one million reais), to be distributed by the Executive Board, taking into account the responsibilities of the administrators, the time devoted to their positions, the competence, the professional reputation, and the value of their services in the market.

The above amount comprises: (a) up to R$ 6,004,560,00 (six million, four thousand five hundred and sixty reais) corresponding to the fixed compensation of the members of the Executive Board, and of the members of the Fiscal Board, under the terms of Act No. 6404/76, Art. 163; (b) up to R$ 70,112,787.00 (seventy million, one hundred twelve thousand, seven hundred and eighty seven reais) corresponding to the fixed and variable compensation of the Executive Directors, which takes into account an Executive Board comprised by 9 Executive Directors. The individual and fixed compensation is compatible with the values paid to the executive members of similar companies, while the payment of the variable compensation, corresponding to the bonus and the long-term incentive, is linked to the fulfillment of predetermined goals, based on the performance of the Company. Thus, the payment of the variable

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compensation is equivalent to the partial or total fulfillment of the predetermined goals, and they may also be not owed in the event of not reaching such goals; (c) up to R$ 24,378,653.00 (twenty-four million, three hundred seventy eight thousand and six hundred and fifty three reais) corresponding to taxes and charges that have an incidence over the compensation and the responsibility of Vale, and also, benefits of any nature; and (d) up to R$ 504,000.00 (five hundred and four thousand reais) corresponding to the remuneration of the members of the Advisory Committees and charges related to that remuneration.

It is important to note that the proposal for overall compensation shown above considers the remuneration of the members of the Advisory Committees and charges related to that remuneration, an amount that is not shown in item 13.2.

Moreover, it is proposed the ratification of amounts paid to directors in fiscal year 2012, with the supplemental amount of R$ 1,058,463.00 (one million, fifty eight thousand four hundred sixty three reais), due to the payment of indemnity for employment termination in 2012.

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14.1 - Description of human resources

I) the number of company employees (total, by groups based on activity, and by geographic location)

The table below shows the number of employees of the Company and its controlled companies for the financial years closed December 31, 2010, 2011 and 2012:

Financial Year ended December 31st of:

	2010	2011	2012
Total number of company employees	**70,785**	**79,646**	**85,305**
Per business area			
Ferrous	25,465	27,620	29,806
Non ferrous	17,765	15,252	16,300
Coal	1,776	2,741	2,991
Logistics	14,116	17,657	19,440
Fertilizers	6,284	7,127	7,340
Others (1)	5,379	9,249	9,428
Per geographical area			
Brazil	56,012	62,667	67.580
Canada	6,390	6,609	6,766
Indonesia	3,144	3,218	3,172
New Caledonia	950	1,123	1,198
Australia	893	1,055	1,067
USA		8	0
China	136	135	134
Mozambique	570	1,294	1,918
Peru	523	800	766
Colombia	361	457	7
Chile	183	203	527
Others (2)	1,623	2,077	2,170

(1) This includes the following: Exploration, Energy, Engineering, Institutes and Foundations, Project Management, Shared Services, and Corporate Services.

(2) This includes the following: Angola, Argentina, Austria, Congo, Dubai, England, Guinea, India, Japan, Kazakhstan, Malaysia, Malawi, Mongolia, Oman, Paraguay, Philippines, Singapore, South Africa, South Korea, Switzerland, Taiwan, Thailand, Wales, and Zambia.

II) the number of outsourced employees (total, by groups based on activity, and by geographic location)

The table below shows the number of outsourced employees of the Company and its controlled companies for the financial years closed December 31, 2010, 2011, and 2012 by activity and by geographic location:

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	Financial Year ended December 31st of:		
	2010	2011	2012
Total number of outsourced employees	**103,300**	**108,084**	**110,343**
Per business area			
Ferrous	12,674	10,427	12,707
Non ferrous	16,024	16,611	16,322
Coal	1,194	5,483	4,666
Logistics	10,392	8,614	11,069
Fertilizers	10,043	11,975	12,117
Others (1)	52,973	54,974	53,462
Per geographical area			
Brazil	74,857	83,723	85,246
Canada	3,583	5,149	6,959
Indonesia	3,169	5,315	3,780
New Caledonia	4,701	3,131	2,712
Australia	437	489	216
USA			0
China			0
Mozambique	7,729	4,121	4,497
Peru	575	1,313	987
Colombia	860	1,109	0
Chile		504	714
Others (2)	1,056	3,230	5,232

(1) This includes the following: Exploration, Energy, Engineering, Institutes and Foundations, Project Management, Shared Services, and Corporate Services.

(2) This includes the following: Angola, Argentina, Congo, Ethiopia, Cook Islands, India, England, Japan, Kazakhstan, Liberia, Malaysia, Mongolia, Oman, Paraguay, Philippines, Singapore, South Africa, Switzerland, Taiwan, Wales, and Zambia.

c. employee turnover index

The index of employee turnover (churning index) for the financial years ending in 2010, 2011, and 2012 was 6.0%, 4.7%, and 5.1%, respectively. The churning index is calculated based on data from Vale S.A. and its controlled companies in the following countries: Brazil, Canada, Indonesia, Mozambique, New Caledonia, Australia, China, Argentina, Chile, England, Japan, Oman, Paraguay, Peru, Taiwan, and Wales.

d. the company s exposure to labor liabilities and contingencies

The company is a defendant in 20,068 labor and pension-related lawsuits, involving a total value of R$ 7.4 billion, for which there is a provision of R$ 1.4 billion by reason of the risks involved. The labor and pension-related lawsuits brought against the Company deal with matters such as: overtime, hours traveling, additional pay for unhealthy and dangerous working conditions, pay equity, and outsourcing, among others.

For a detailed description of the nature of the labor cases considered relevant to the business of the Company or its controlled companies, see item 4.3 of this Reference Form.

14.2 Relevant changes Human resources

Regarding the number of workers, there was a decrease in the number of Company employees and contractors in Colombia as a result of asset sale in that country. There was also a reduction in the number of employees and contractors as a result of manganese asset sales in France and Norway.

in the Non ferrous business area, which is a result of the sale of Aluminum assets. The beginning of operations of projects in Oman led to a reduction in the number of outsourced employees in the Ferrous business area. The same thing occurred with projects in Mozambique and led to an increase in the number of Company employees in that country.

14.3 Description of Company employee remuneration policies

a. Salary and variable remuneration policy

Vale follows the practice already adopted in recent years to carry out comparative research on remuneration and offers all its own employees a salary equal to or higher than the legal minimum practiced in each location. Additionally, in order to strengthen the culture of constant pursuit of results, the

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remuneration package for each employee includes the payment of variable remuneration, calculated according to the results achieved by the performance of the Company, the department, and the individual or the team.

In Vale s own units, performance assessment is based on annual goals aligned to Company strategy. These evaluations are conducted through an interactive process between employees and their managers, as well as using computer systems, in which the results are logged. The goals also serve as a basis for the Variable Remuneration Program, which awards employees for meeting or exceeding them. Each employee has a panel of annual goals, comprised of three blocks: Company Goals, Department Goals, and Individual/Team Goals. At the beginning of each year the results are evaluated in terms of the goals from the previous year. Each goal totally or partially reached corresponds to a number of points and the sum of the points of the three blocks corresponds to the variable remuneration of the employee.

For the short-term performance cycle (annual), the goals are defined based on the established, principal strategic objectives and annual budget, measuring economical-financial performance, technical and operational performance, and sustainability (management, health and safety, and environment).

Since November 2007, Vale has signed collective agreements valid for two years with all trade unions representing 100% of the total number of Company employees in Brazil. As a result of the agreements, for the period 2011-2013 there was a salary increase of 8.6% in 2011 and there will be another of 8.0% in 2012, resulting in a total of 17.29% of readjustment. A new agreement is supposed to be negotiated with the Unions in November 2013. In Canada, Australia, Indonesia, New Caledonia, Mozambique, Peru, England, Oman, Chile, and Argentina, Vale negotiates collective agreements with workers trade unions, with a duration of typically between one and five years.

Certain employees who are part of the management framework of Vale may participate in long-term incentives, depending on eligibility for each plan, such as: (i) Matching, a program based on shares with the objective of compensating and retaining managers, in which the eligible employee invests in shares of Vale at time 0 and, if he meets certain requirements, the Company grants, after three years, an equivalent number of shares as were purchased at time 0; (ii) Project Bonus, a long-term program directed toward leaders of capital projects based on performance and sustainability of the projects; and (iii) Long-Term Incentive Program, a program that grants virtual shares of Vale to executives, taking into consideration the relative performance of the total return to the shareholder over a three-year period compared with a group of similar companies (peers) during the same period.

The salary and variable remuneration policy for non-statutory directors is described in item 13 of this Reference Form.

b. Benefits policy

The benefits are part of the total compensation package that ensures the employees and their legal dependents protection and security during the term of the contract of employment.

Vale establishes global guidelines for granting benefits to ensure that they are offered consistently in the various countries where Vale is present, bearing in mind the goals of its business in each locality, the human relations philosophy and corporate strategy, in addition to the legal requirements of the country and the given local market conditions.

Benefits considered essential are social security, health plan, life and accident insurance, and income plans for times when the employee leaves the Company.

Benefits such as transport vouchers, education, Employee Assistance Plan, meals at work, and personal accident insurance are offered in accordance with the specificity of each location.

As a result of the process of globalization of the benefits offered, since 2011 Vale provides Global Health Insurance to meet the needs all expatriate employees and their dependents in an equitable way, offering the same coverage anywhere in the world.

c. Characteristics of compensation plans based in shares for non-administrative employees

Compensation plans based in shares described in item 13.4 of this Reference Form, which are the Long-Term Incentive Program and Matching, include the Company s non-statutory directors, as well as

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managerial-level employees. The characteristics of these plans are described in item 13.4 of this Reference Form.

14.4 - Description of the relationships between the issuer and trade unions

Vale builds a harmonious relationship with trade unions all around the world. That covers approximately 50 trade unions in Brazil and 12 trade unions in the rest of the world. Today, there are collective agreements in Brazil, Canada, the United Kingdom, Norway, France, Peru, Argentina, Paraguay, Malawi, Mozambique, Australia, New Caledonia, Chile and Indonesia.