Companhia Vale do Rio Doce
Form 20-F
April 28, 2009

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As filed with the Securities and Exchange Commission on April 28, 2009

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 20-F
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended: December 31, 2008
Commission file number: 001-15030
COMPANHIA VALE DO RIO DOCE
(Exact name of Registrant as specified in its charter)

Federative Republic of Brazil
(Jurisdiction of incorporation or organization)

Fabio de Oliveira Barbosa, Chief Financial Officer
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Avenida Graça Aranha, No. 26
20030-900 Rio de Janeiro, RJ, Brazil
(Address of principal executive offices)

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Preferred class A shares of Vale, no par value per share	New York Stock Exchange*
American Depositary Shares (evidenced by American Depositary Receipts), each representing one preferred class A share of Vale	New York Stock Exchange
Common shares of Vale, no par value per share	New York Stock Exchange*
American Depositary Shares (evidenced by American Depositary Receipts), each representing one common share of Vale	New York Stock Exchange
6.875% Guaranteed Notes due 2036, issued by Vale Overseas	New York Stock Exchange
8.250% Guaranteed Notes due 2034, issued by Vale Overseas	New York Stock Exchange
6.250% Guaranteed Notes due 2017, issued by Vale Overseas	New York Stock Exchange
6.250% Guaranteed Notes due 2016, issued by Vale Overseas	New York Stock Exchange
5.50% Guaranteed Notes due 2010, series RIO P, issued by Vale Capital	New York Stock Exchange
5.50% Guaranteed Notes due 2010, series RIO, issued by Vale Capital	New York Stock Exchange

* Shares are not listed for trading, but only in connection with the registration of American Depositary Shares pursuant to the requirements of the New York Stock Exchange.

Securities registered or to be registered pursuant to Section 12(g) of the Act: None
Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None
The number of outstanding shares of each class of stock of Vale as of December 31, 2008 was:

3,181,786,583 common shares, no par value per share
2,031,725,314 preferred class A shares, no par value per share
12 golden shares, no par value per share

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

Yes þ No o

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

Yes o No þ

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

Yes þ No o

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

Large accelerated filer þ Accelerated filer o Non-accelerated filer o

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

U.S. GAAP þ International Financial Reporting Standards as issued by the International Accounting Standards Board o Other o

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

Item 17 o Item 18 o

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

Yes o No þ

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PRESENTATION OF FINANCIAL INFORMATION

We have prepared our financial statements in this annual report in accordance with generally accepted accounting principles in the United States (U.S. GAAP), which differ in certain respects from accounting practices adopted in Brazil (Brazilian GAAP). Brazilian GAAP is determined by the requirements of Brazilian corporate law and the rules and regulations of the Brazilian Securities Commission (*Comissão de Valores Mobiliários*), or CVM.

We also publish Brazilian GAAP financial statements and use them for reports to Brazilian shareholders, CVM filings, determining the legal minimum dividend under Brazilian law and determining our Brazilian tax liability. Beginning in 2008, significant changes are being made to Brazilian corporate law to permit Brazilian GAAP to converge with International Financial Reporting Standards (IFRS). Pursuant to CVM regulations, we are required to report our financial statements in IFRS beginning with the year ending December 31, 2010.

Our financial statements and the other financial information appearing in this annual report have been translated from Brazilian *reais* into U.S. dollars on the basis explained in Note 3 to our financial statements, unless we indicate otherwise.

References to *real,* *reais* or R$ are to Brazilian *reais* (plural) and to the Brazilian *real* (singular), the official currency of Brazil. References to U.S. dollars or US$ are to United States dollars. References to CAD are to Canadian dollars, and references to A$ are to Australian dollars. Unless otherwise specified, we use metric units. References to Vale are to Companhia Vale do Rio Doce. References to us or we are to Vale and, except where the context otherwise requires, its consolidated subsidiaries. References to our preferred shares are to our preferred class A shares. References to our ADSs or American Depositary Shares include both our common American Depositary Shares (our common ADSs), each of which represents one common share of Vale, and our preferred American Depositary Shares (our preferred ADSs), each of which represents one preferred share of Vale. American Depositary Shares are represented by American Depositary Receipts (ADRs) issued by the depositary.

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FORWARD-LOOKING STATEMENTS

This annual report contains statements that may constitute forward-looking statements within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Many of those forward-looking statements can be identified by the use of forward-looking words such as anticipate, believe, could, expect, should plan, intend, estimate and potential, among others. Those statements appear in a number of places and include statements regarding our intent, belief or current expectations with respect to:

our direction and future operation;

the implementation of our principal operating strategies, including our potential participation in acquisition, divestiture or joint venture transactions or other investment opportunities;

the implementation of our financing strategy and capital expenditure plans;

the exploration of mineral reserves and development of mining facilities;

the depletion and exhaustion of mines and mineral reserves;

trends in commodity prices and demand for commodities;

the future impact of competition and regulation;

the payment of dividends;

industry trends, including the direction of prices and expected levels of supply and demand;

other factors or trends affecting our financial condition or results of operations; and

the factors discussed under *Item 3. Key information Risk factors*.

We caution you that forward-looking statements are not guarantees of future performance and involve risks and uncertainties. Actual results may differ materially from those in forward-looking statements as a result of various factors. These risks and uncertainties include factors relating to (a) the countries in which we operate, mainly Brazil and Canada, (b) the global economy, (c) capital markets, (d) the mining and metals businesses and their dependence upon global industrial production, which is cyclical by nature, and (e) the high degree of global competition in the markets in which we operate. For additional information on factors that could cause our actual results to differ from expectations reflected in forward-looking statements, see *Item 3. Key information Risk factors*. Forward-looking statements speak only as of the date they are made, and we do not undertake any obligation to update them in light of new information or future developments. All forward-looking statements attributed to us or a person acting on our behalf are expressly qualified in their entirety by this cautionary statement, and you should not place undue reliance on any forward-looking statement.

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PART I

Item 1. ***Identity of directors, senior management and advisors***

Not applicable.

Item 2. ***Offer statistics and expected timetable***

Not applicable.

Item 3. ***Key information***

SELECTED FINANCIAL DATA

The tables below present selected consolidated financial information as of and for the periods indicated. You should read this information together with our consolidated financial statements appearing in this annual report.

Statement of income data

	For the year ended December 31,				
	2004	**2005**	**2006**	**2007**	**2008**
			(US$ million)		
Net operating revenues	8,066	12,792	19,651	32,242	37,426
Cost of products and services	(4,081)	(6,229)	(10,147)	(16,463)	(17,641)
Selling, general and administrative expenses	(452)	(583)	(816)	(1,245)	(1,748)
Research and development	(153)	(277)	(481)	(733)	(1,085)
Impairment of goodwill					(950)
Other expenses	(257)	(271)	(570)	(607)	(1,254)
Operating income	3,123	5,432	7,637	13,194	14,748
Non-operating income (expenses):					
Financial income (expenses)	(589)	(437)	(1,011)	(1,291)	(1,975)
Foreign exchange and monetary gains, net	65	299	529	2,553	364
Gain on sale of investments	404	126	674	777	80
Subtotal	(120)	(12)	192	2,039	(1,531)
Income before income taxes, equity results and minority interests	3,003	5,420	7,829	15,233	13,217
Income taxes charge	(749)	(880)	(1,432)	(3,201)	(535)
Equity in results of affiliates and joint ventures and change in provision for gains on equity investments	542	760	710	595	794
Minority interests	(223)	(459)	(579)	(802)	(258)

Net income	2,573	4,841	6,528	11,825	13,218
Total cash paid to shareholders(1)	787	1,300	1,300	1,875	2,850

(1) Consists of total cash paid to shareholders, whether classified as dividends or interest on shareholders equity, during the period.

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Basic and diluted earnings per share

	For the year ended December 31,(1)				
	2004	2005	2006	2007	2008(5)
	(US$, except as noted)				
Earnings per share(2):					
Basic					
Per common share	0.56	1.05	1.35	2.41	2.58
Per preferred share	0.56	1.05	1.35	2.41	2.58
Diluted					
Per common share				2.42	2.61
Per preferred share				2.42	2.61
Weighted average number of shares outstanding (in thousands)(3):					
Common shares	2,943,216	2,943,216	2,943,216	2,943,216	3,028,817
Preferred shares	1,662,864	1,662,864	1,908,852	1,889,171	1,946,454
Treasury common shares underlying convertible notes				34,510	56,582
Treasury preferred shares underlying convertible notes				18,478	30,295
Total	4,606,080	4,606,080	4,852,068	4,885,375	5,062,148
Distributions to shareholders per share(4):					
In US$	0.17	0.28	0.27	0.39	0.56
In *reais*	R$ 0.49	R$ 0.67	R$ 0.58	R$ 0.74	R$ 1.09

(1) We carried out two-for-one forward stock splits in September 2007 and in May 2006 and a three-for-one forward stock split in August 2004. Share and per-share amounts for all periods give retroactive effect to all forward stock splits.

(2) Diluted earnings per share for 2007 and 2008 include preferred shares and common shares underlying the mandatorily convertible notes due in 2010, which were issued in June 2007.

(3) Each common ADS represents one common share and each preferred ADS represents one preferred share.

(4) Our distributions to shareholders may be classified as either dividends or interest on shareholders equity. Since 2004, part of each distribution has been classified as interest on shareholders equity and part as dividends. For information about distributions paid to shareholders, see *Item 8. Financial information Distributions.*

(5) In July 2008, we issued 80,079,223 common ADSs, 176,847,543 common shares, 63,506,751 preferred ADSs and 100,896,048 preferred shares in a global equity offering. In August 2008, we issued an additional 24,660,419 preferred shares. In October 2008, our Board of Directors approved a share buy-back program. As of

December 31, 2008, we had acquired 18,355,859 common shares and 46,513,400 preferred shares, which are held in treasury. For more information see *Item 16E. Purchases of equity securities by the issuer and affiliated purchasers*.

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Balance sheet data

	At December 31,				
	2004	2005	2006	2007	2008
	(US$ million)				
Current assets	3,890	4,775	12,940	11,380	23,238
Property, plant and equipment, net	9,063	14,166	38,007	54,625	49,329
Investments in affiliated companies and joint ventures and other investments	1,159	1,672	2,353	2,922	2,408
Other assets	1,603	2,031	7,626	7,790	4,956
Total assets	15,715	22,644	60,926	76,717	79,931
Current liabilities	2,455	3,325	7,312	10,083	7,237
Long-term liabilities(1)	1,867	2,410	10,008	13,195	10,112
Long-term debt(2)	3,214	3,714	21,122	17,608	17,535
Total liabilities	7,536	9,449	38,442	40,886	34,884
Minority interest	788	1,218	2,811	2,555	2,491
Stockholders equity:					
Capital stock	3,209	5,868	8,119	12,306	23,848
Additional paid-in capital	498	498	498	498	393
Mandatorily convertible notes common ADSs				1,288	1,288
Mandatorily convertible notes preferred ADSs				581	581
Reserves and retained earnings	3,684	5,611	11,056	18,603	16,446
Total shareholders equity	7,391	11,977	19,673	33,276	42,556
Total liabilities and shareholders equity	15,715	22,644	60,926	76,717	79,931

(1) Excludes long-term debt.

(2) Excludes current portion of long-term debt.

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RISK FACTORS

Risks relating to our business

The global recession could lead to a significant reduction in our revenues, cash flow and profitability.

The global economy, and in particular global industrial production, is the primary driver of demand for minerals and metals. Global industrial production has been trending downward since the second half of 2008, resulting in a significant and widespread contraction in demand for minerals and metals, including an unprecedented decline in global demand for iron ore, our main product.

There is uncertainty about the depth and duration of the current global economic downturn and its continuing impact on the demand for minerals and metals. To avoid significant inventory accumulation, we have been reducing production of several products, which will have a negative impact on our cash generation and profitability.

Slowing economic growth in China could have a negative impact on our revenues, cash flow and profitability.

China has been the main driver of the global demand for minerals and metals over the last few years. In 2008, Chinese demand represented approximately 53% of global demand for seaborne iron ore, 29% of global demand for nickel, 34% of global demand for aluminum and 27% of global demand for copper. The percentage of our gross revenues attributable to sales to consumers in China was 17.4% in 2008. A contraction of China s economic growth could result in lower demand for our products, leading to lower revenues, cash flow and profitability.

Chinese economic growth has been decelerating sharply as a result of a tightening domestic credit market and slowing exports. The strong decline in credit growth from the last quarter of 2007 through the third quarter of 2008 significantly impeded growth in the real estate sector, one of the largest consumers of steel in China. Although the Chinese government is increasing expenditure on infrastructure and public housing, launching tax incentives, and taking measures to ease credit tightness, there is uncertainty about the extent and duration of the current growth deceleration.

A decline in demand for steel would adversely affect our business.

Demand for our most important products depends on global demand for steel. Iron ore and iron ore pellets, which together accounted for 57.3% of our 2008 gross revenues, are used to produce carbon steel. Nickel, which accounted for 15.5% of our 2008 gross revenues, is used mainly to produce stainless steel. Demand for steel depends heavily on global economic conditions, but it also depends on a variety of regional and sectoral factors. The prices of different steels and the performance of the global steel industry are highly cyclical and volatile, and these business cycles in the steel industry affect demand and prices for our products. In addition, vertical backward integration of the steel industry could reduce the global seaborne trade of iron ore. The global seaborne trade of iron ore could also suffer from competition from metallics, such as semi-finished steel and scrap. In certain cases, it may be more economical for steelmakers to charge more scrap in basic oxygen furnaces (BOF) and electric arc furnaces (EAF), instead of producing pig iron. Semi-finished products, such as billets and slabs, may also be available from fully-integrated steel mills at low cost, reducing overall demand for seaborne iron ore.

From 2003 to 2007, growing worldwide demand for carbon steel led to strong demand and rising prices for iron ore and iron ore pellets. However, the acceleration of the global financial crisis and the slowdown in Chinese demand since the second half of 2008 have resulted in sharp cuts in global carbon steel output, negatively affecting demand for

iron ore and iron ore pellets. Moreover, the global financial crisis has had a sharp impact on Europe and Brazil, our natural markets for iron ore and iron ore pellets. The European economy may recover more slowly than other regions, which would negatively affect the volume of our

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shipments of iron ore and iron ore pellets to this region. A sustained decline in prices or sales volumes for iron ore and iron ore pellets would have a material adverse effect on our revenues and earnings.

In response to high nickel prices, which reached record highs in the second quarter of 2007 as a result of high demand for stainless steel, producers and consumers of stainless steel started shifting from stainless steel with high nickel content (series 300) to stainless steels with either lower nickel content (series 200) or no nickel content (series 400). It is unclear whether this trend will continue or potentially reverse in the midst of lower nickel prices. Stainless steel production fell 2% in the first half of 2008, and declined 13% in the second half of 2008 relative to 2007, as a result of inventory de-stocking and the global financial crisis. A sustained decline in austenitic stainless steel production would have a material adverse effect on our revenues from nickel.

The prices of nickel, aluminum and copper, which are actively traded on world commodity exchanges, are subject to significant volatility.

Nickel, aluminum and copper are sold in an active global market and traded on commodity exchanges, such as the London Metal Exchange and the New York Mercantile Exchange. Prices for these metals are subject to significant fluctuations and are affected by many factors, including actual and expected global macroeconomic and political conditions, levels of supply and demand, the availability and cost of substitutes, inventory, investments by commodity funds and others and actions of participants in the commodity markets. Prices for these metals are more volatile than contractual prices for products such as iron ore, iron ore pellets and metallurgical coal, because they respond more quickly to actual and expected changes in market conditions.

Increased direct or indirect substitution of primary nickel could adversely affect our nickel business.

Demand for primary nickel may be negatively affected by the direct substitution of primary nickel with other materials in current applications. Scrap nickel competes directly with primary nickel as a source of nickel for use in the production of stainless steel, and the choice between them is largely driven by their relative prices and availability. In 2008, the stainless steel scrap ratio is estimated to have remained relatively unchanged compared to 2007, at 49%. Nickel pig iron, a product developed by Chinese steel and alloy makers that utilizes low-grade lateritic nickel ores, competes with other nickel sources in the production of stainless steel. In 2008, nickel pig iron production declined approximately 17%, given high production costs and lower nickel prices.

We may not be able to reduce our production volume in response to lower demand in a timely and cost-efficient manner.

Due to the slowdown in the global economy beginning in the second half of 2008, demand for our products has declined sharply. We have been taking measures to adjust our production volume to the lower demand level, such as shutting down mines, slowing down plant production, and undertaking maintenance ahead of schedule. However, operating at significant idle capacity may expose us to higher unit production costs, because a significant portion of our cost structure is fixed in the short-term due to the high capital intensity of mining operations. In addition, there could be limits to cost cutting due to certain labor regulations or previous labor or government agreements. During periods of high demand, conversely, our ability to rapidly increase production capacity is limited.

Regulatory, political, economic and social conditions in the countries in which we operate or have projects could adversely impact our business and the market price of our securities.

Our financial performance may be negatively affected by regulatory, political, economic and social conditions in countries in which we have significant operations or projects, particularly Brazil, Canada, Indonesia, Australia, New Caledonia and Mozambique.

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Our operations depend on authorizations from and concessions by governmental regulatory agencies of the countries in which we operate. For details about the authorizations and concessions upon which our operations activities depend, see *Item 4. Information on the company Regulatory matters*. We are subject to laws and regulations in many jurisdictions that can change at any time, and changes in laws and regulations may require modifications to our technologies and operations and result in unanticipated capital expenditures. For example, a mining law in Indonesia enacted in January 2009 may have important implications for current and future mining operations of PT International Nickel Indonesia Tbk (PT Inco). See *Item 4. Information on the company Regulatory matters Mining regulation.*

Actual or potential political changes and changes in economic policy may undermine investor confidence, result in economic slowdowns and otherwise adversely affect the economic and other conditions under which we operate in ways that could have a material adverse effect on our business. Governments in emerging economies such as Brazil, Indonesia and New Caledonia frequently intervene in the economy and occasionally make substantial changes in policy that could adversely affect exchange rates, inflation, interest rates, rates of taxes or royalties and the economic and regulatory environment in which we operate. For example, a planned referendum in 2014 may result in New Caledonia becoming fully independent from France, which may result in political and economic changes that could adversely affect our Goro project.

Protestors have taken actions to disrupt our operations and projects, and they may continue to do so in the future. In New Caledonia, protestors have in the past caused physical damage to our Goro project and have impeded the construction of the marine pipeline. Although we vigorously defend ourselves against illegal acts, while supporting the communities living near our operations, future attempts by protestors to harm our operations could adversely affect our business.

Our projects are subject to risks that may result in increased costs or delay or prevent their successful implementation.

We are investing to further increase our production capacity, logistics capabilities and to expand the scope of minerals we produce. Our expansion and mining projects are subject to a number of risks that may adversely affect our growth prospects and profitability, including the following:

- We may encounter delays or higher than expected costs in obtaining the necessary equipment or services to build and operate a project.
- Our efforts to develop projects according to schedule may be hampered by a lack of infrastructure, including a reliable power supply.
- We may fail to obtain, or experience delays or higher than expected costs in obtaining, the required permits to build a project.
- Changes in market conditions or regulations may make a project less profitable than expected at the time we initiated work on it.
- Adverse mining conditions may delay and hamper our ability to produce the expected quantities of minerals.
- Some of our development projects are located in regions where tropical diseases, AIDS, malaria, yellow fever and other contagious diseases are a major public health issue and pose health and safety risks to our employees. If we are unable to ensure the health and safety of our employees, our business may be adversely affected.

Our controlling shareholder has significant influence over Vale, and the Brazilian government has certain veto rights.

As of March 31, 2009, Valepar S.A. owned 52.7% of our outstanding common stock and 32.4% of our total outstanding capital. As a result of its share ownership, Valepar can control the outcome of some actions

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that require shareholder approval. For a description of our ownership structure and of the Valepar shareholders agreement, see *Item 7. Major shareholders and related party transactions Major shareholders*.

The Brazilian government owns 12 Vale golden shares, granting it limited veto power over certain company actions, such as changes to our name, the location of our headquarters and our corporate purpose as it relates to mining activities. For a detailed description of the Brazilian government s veto powers, see *Item 10. Additional information Common shares and preferred shares General*.

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

We operate in a global environment, and our activities straddle multiple jurisdictions and complex regulatory frameworks with increased enforcement activities worldwide. Our governance and compliance processes, which include the review of internal control over financial reporting, may not prevent future breaches of law, accounting or governance standards. We may be subject to breaches of our Code of Ethical Conduct, business conduct protocols and instances of fraudulent behavior and dishonesty by our employees, contractors or other agents. Our failure to comply with applicable laws and other standards could subject us to fines, loss of operating licenses and reputational harm.

Many of our operations depend on joint ventures or consortia, and our business could be adversely affected if our partners fail to observe their commitments.

We currently operate important parts of our pelletizing, nickel, bauxite, coal and steel businesses through joint ventures with other companies. Important parts of our electricity business are operated through consortia. Our forecasts and plans for these joint ventures and consortia assume that our partners will observe their obligations to make capital contributions, purchase products and, in some cases, provide managerial personnel. If any of our 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 we may have to increase the level of our investment to implement these plans. For more information about our joint ventures, see *Item 4. Information on the company Lines of business*.

Environmental, health and safety regulation may adversely affect our business.

Our operations often involve the use, handling, disposal and discharge of hazardous materials into the environment or the use of natural resources, and nearly all aspects of our operations and development projects around the world are subject to environmental, health and safety regulation. Such regulation requires us to obtain operating licenses, permits and other approvals and to conduct environmental assessments prior to initiating projects or undertaking significant changes to existing operations. Difficulties in obtaining permits may lead to construction delays or cost increases, and in some cases may lead us to postpone or even abandon a project. Environmental regulation also imposes standards and controls on activities relating to mining, exploration, development, production, reclamation, closure, monitoring and the refining, distribution and marketing of our products. Such regulation may give rise to significant costs and liabilities. In addition, community activist groups and other stakeholders may increase demands for environmentally-sustainable development, which could entail significant costs and reduce our profitability.

Environmental regulation in many countries in which we operate has become stricter in recent years, and it is possible that more regulation or more aggressive enforcement of existing regulations will adversely affect us by imposing restrictions on our activities, creating new requirements for the issuance or renewal of environmental licenses, raising our costs or requiring us to engage in expensive reclamation efforts. For more information on environmental, health and safety regulation applicable to our operations, see *Item 4. Information on the company Regulatory matters Environmental regulation* and *Item 8. Financial information Legal proceedings*.

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Our reserve estimates may materially differ from mineral quantities that we may be able to actually recover; our 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.

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

We may not be able to replenish our reserves, which could adversely affect our mining prospects.

We engage in mineral exploration, which is highly speculative in nature, involves many risks and frequently is non-productive. Our exploration programs, which involve significant capital expenditures, may fail to result in the expansion or replacement of reserves depleted by current production. If we do not develop new reserves, we will not be able to sustain our current level of production beyond the remaining lives of our existing mines.

Even if we discover mineral deposits, we remain subject to drilling and production risks, which could adversely affect the mining process.

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

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

If a project proves not to be economically feasible by the time we are able to exploit it, we may incur substantial write-offs. In addition, potential changes or complications involving metallurgical and other technological processes arising during the life of a project may result in cost overruns that may render the project not economically feasible.

We face rising extraction costs over time as reserves deplete.

Reserves are gradually depleted in the ordinary course of a given mining operation. As mining progresses, distances to the primary crusher and to waste deposits become longer, pits become steeper and underground operations become deeper. As a result, over time, we usually experience rising unit extraction costs with respect to each mine. Several of our mines have been operating for long periods, and we will likely experience rising extraction costs per unit in the future at these operations.

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We may face shortages of equipment, services and skilled personnel.

From 2003 to 2007, the mining industry faced worldwide shortages of mining and construction equipment, spare parts, contractors and other skilled personnel as a result of high demand for minerals and metals and the large number of projects under development. We have experienced longer lead-times for mining equipment and problems with the quality of contracted engineering, construction and maintenance services. We compete with other mining companies for highly skilled executives and staff with relevant industry and technical experience, and we may not be able to attract and retain such people. Shortages during peak periods could negatively impact our operations, resulting in higher production or capital expenditure costs, production interruptions, higher inventory costs, project delays and potentially lower production and revenues. While this risk may be mitigated in the short term by economic conditions, we believe it remains an issue in the medium-term upon the recovery of the global economy.

Labor disputes have disrupted our operations, and such disputes could recur.

A substantial number of our employees, and some of the employees of our subcontractors, are represented by labor unions and are covered by collective bargaining or other labor agreements, which are subject to periodic negotiation. Negotiation may become more difficult in times of higher prices and increased profits in the mining and metals industries, as labor unions may seek wage increases. Strikes or work stoppages have occurred in the past in Canada and Indonesia and could reoccur in connection with negotiations of new labor agreements or during other periods for other reasons, including the risk of layoffs during a downcycle. Moreover, we could be adversely affected by labor disruptions involving unrelated parties that may provide us with goods or services. Strikes and other labor disruptions at any of our operations could adversely affect the operation of facilities and the timing of completion and the cost of our capital projects.

Higher energy costs or energy shortages would adversely affect our business.

Energy costs are a significant component of our cost of production, representing 16.6% of our total cost of goods sold in 2008. To fulfill our energy needs, we depend on oil by-products, which represented 33.7% of total energy needs in 2008 in TOE (tons of oil equivalent), electricity (40.4% on the same basis), coal (12.4% on the same basis) and natural gas (13.5% on the same basis).

Fuel costs represented 10.4% of our cost of goods sold in 2008. Increases in oil and gas prices adversely affect margins in our logistics, mining, iron ore pellets, nickel and alumina businesses. Due to relatively high international oil prices, which increased by 38% in 2008, and low nickel prices recently, we have announced cuts in nickel production in Indonesia, where we use oil generators.

Electricity costs represented 6.1% of our total cost of goods sold in 2008. If we are unable to secure reliable access to electric energy at acceptable prices, we may be forced to curtail production or may experience higher production costs, either of which would adversely affect our results of operations. Due to relatively high electricity prices and low aluminum prices recently, we have announced a production curtailment at one of our aluminum smelters, which pays electricity at spot prices.

Electricity shortages have occurred in Brazil in the past and could reoccur in the future, and there can be no assurance that the Brazilian government s policies will succeed in encouraging growth in power generation capacity. Future shortages, and government efforts to respond to or prevent shortages, may adversely impact the cost or supply of electricity for our Brazilian aluminum and ferroalloy operations, which are electricity-intensive. Changes in the laws, regulations or governmental policies regarding the power sector or concession requirements could reduce our expected returns from our investments in power generation. See *Item 4. Information on the company Regulatory matters Electric energy regulation.*

Through our subsidiary PT Inco, we process lateritic nickel ores using a pyrometallurgical process, which is energy-intensive. Although PT Inco currently generates a majority of the electricity for its operations from its own hydroelectric power plants, hydrological factors, such as low rainfalls, could adversely affect electricity production at PT Inco s plants in the future, which could significantly increase the risk of higher costs or

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lower production volume. For more information on the regulations governing energy production, see *Item 4. Information on the company Regulatory matters Electric energy regulation.*

Price volatility of the currencies in which we conduct operations relative to the U.S. dollar could adversely affect our financial condition and results of operations.

We are affected by fluctuations in the prices of the currencies in which we conduct operations relative to the U.S. dollar. A substantial portion of our revenues and debt is denominated in U.S. dollars, and changes in exchange rates may result in losses or gains on our net U.S. dollar-denominated indebtedness and accounts payable. In 2008, 2007 and 2006, changes in exchange rates produced net foreign exchange gains (loss) of US$(1.011) billion, US$1.639 billion and US$452 million, respectively. In addition, the price volatility of the Brazilian *real*, the Canadian dollar, the Indonesian rupiah and other currencies against the U.S. dollar affect our results since most of our costs of goods sold are denominated in currencies other than the U.S. dollar, principally the *real* (62% in 2008) and the Canadian dollar (20% in 2008), while our revenues are mostly U.S. dollar-denominated. Currency fluctuations are expected to continue to affect our financial income, expense and cash flow generation.

Significant volatility in currency prices may also result in disruption of countries foreign exchange markets and may limit our ability to transfer or to convert such currencies into U.S. dollars and other currencies for the purpose of making timely payments of interest and principal on our indebtedness. The governments of countries in which we operate may institute restrictive exchange rate policies in the future.

We may not have adequate insurance coverage for some business risks.

Our businesses are generally subject to a number of risks and hazards, which could result in damage to, or destruction of, mineral properties, facilities and equipment. The insurance we maintain against risks that are typical in our business may not provide adequate coverage. Insurance against some risks (including liabilities for environmental pollution or certain hazards or interruption of certain business activities) may not be available at a reasonable cost, or at all. As a result, accidents or other negative developments involving our mining, production or transportation facilities could have a material adverse effect on our operations.

Risks relating to our American Depositary Shares

If ADR holders exchange ADSs for the underlying shares, they risk losing the ability to remit foreign currency abroad and Brazilian tax advantages.

The Brazilian custodian for the shares underlying our ADSs will maintain an electronic registration from the Central Bank of Brazil entitling it to remit U.S. dollars outside Brazil for payments of dividends and other distributions relating to the shares underlying our ADSs or upon the disposition of the underlying shares. If an ADR holder exchanges its ADSs for the underlying shares, it will be entitled to rely on the custodian s electronic registration for only five business days from the date of exchange. Thereafter, an ADR holder may not be able to obtain and remit U.S. dollars abroad upon the disposition of, or distributions relating to, the underlying shares unless it obtains its own electronic registration by registering the investment in the underlying shares under Resolution No. 2,689 of the National Monetary Council, which permits qualifying institutional foreign investors to buy and sell securities on the São Paulo Stock Exchange (the BOVESPA). For more information regarding these exchange controls, see *Item 10. Additional information Exchange controls and other limitations affecting security holders*. If an ADR holder attempts to obtain its own electronic registration, it may incur expenses or suffer delays in the application process, which could delay the receipt of dividends or distributions relating to the underlying shares or the return of capital in a timely manner.

We cannot assure ADR holders that the custodian s electronic registration or any certificate of foreign capital registration obtained by them will not be affected by future legislative changes, or that additional restrictions applicable to ADR holders, the disposition of the underlying shares or the repatriation of the proceeds from disposition will not be imposed in the future.

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ADR holders may be unable to exercise preemptive rights relating to the shares underlying their ADSs.

ADR holders may not be able to exercise preemptive rights, or exercise other types of rights, with respect to the underlying shares. The ability of ADR holders to exercise preemptive rights is not assured, particularly if the applicable law in the holder s jurisdiction (for example, the Securities Act in the United States) requires that either a registration statement be effective with respect to those rights or an exemption be available. We are not obligated to file a registration statement in the United States, or to make any other similar filing in any other jurisdiction, relating to preemptive rights with respect to the underlying shares or to undertake steps that may be needed to make exemptions from registration available, and we cannot assure ADR holders that we will file any registration statement or take such steps. For a more complete description of preemptive rights with respect to the underlying shares, see *Item 10. Additional information Common shares and preferred shares Preemptive rights*.

ADR holders may encounter difficulties in the exercise of voting rights.

ADR holders do not have the rights of shareholders. They have only the contractual rights set forth for their benefit under the deposit agreements. ADR holders are not permitted to attend shareholders meetings, and they may only vote by providing instructions to the depositary. In the event that we fail to provide the depositary with voting materials on a timely basis, or the depositary does not provide sufficient time for ADR holders to submit voting instructions, ADR holders will not be able to vote. With respect to ADSs for which instructions are not received, the depositary may, subject to certain limitations, grant a proxy to a person designated by us.

Brazilian securities markets are not as highly regulated as the securities markets in certain other jurisdictions.

ADR holders may be disadvantaged by the fact that the Brazilian securities markets are not as highly regulated and supervised as the securities markets in the United States or in certain other jurisdictions. Rules and policies against self-dealing and regarding the preservation of minority shareholder interests may be less well-developed and enforced in Brazil than in the United States or in certain other jurisdictions. For example, when compared to Delaware corporate law, Brazilian corporate law and practice have less detailed and well-established rules and judicial precedents relating to the review of management decisions against duty of care and duty of loyalty standards in the context of corporate restructurings, transactions with related parties, and sale-of-business transactions. Moreover, shareholders in Brazilian companies ordinarily do not have standing to bring a class-action lawsuit. As a foreign private issuer, we are not required to follow many of the corporate governance rules that apply to U.S. domestic issuers with securities listed on the New York Stock Exchange, and we are not subject to the U.S. proxy rules. For more information concerning our corporate governance policies, see *Item 16G. Corporate governance.*

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Item 4. ***Information on the company***

BUSINESS OVERVIEW

General

We are the second-largest metals and mining company in the world and the largest in the Americas, based on market capitalization. We are the world s largest producer of iron ore and iron ore pellets and the world s second-largest producer of nickel. We are one of the world s largest producers of manganese ore, ferroalloys and kaolin. We also produce bauxite, alumina, aluminum, copper, coal, cobalt, precious metals, potash and other products. To support our growth strategy, we are actively engaged in mineral exploration efforts in 22 countries around the globe. We operate large logistics systems in Brazil, including railroads, maritime terminals and a port, which are integrated with our mining operations. Directly and through affiliates and joint ventures, we have investments in the energy and steel businesses.

The following table presents the breakdown of our total gross revenues attributable to each of our main lines of business, each of which is described following the table.

	Year ended December 31,			
	2006	**2006(1)**	**2007**	**2008**
		(%)		
Ferrous minerals:				
Iron ore	49.2%	39.0%	36.0%	46.2%
Iron ore pellets	9.7	7.7	8.3	11.2
Manganese	0.3	0.2	0.2	0.7
Ferroalloys	2.5	2.0	2.1	3.1
Pig iron			0.2	0.4
Subtotal	61.7	48.9	46.8	61.6
Non-ferrous minerals:				
Nickel(2)	11.6	25.6	30.3	15.5
Aluminum	11.7	9.3	8.2	7.9
Copper	5.3	7.1	6.0	5.3
PGMs(2)	0.4	1.0	1.0	1.0
Other precious metals(2)	0.1	0.7	0.3	0.3
Other non-ferrous minerals	1.9	1.6	1.7	1.3
Subtotal	31.0	45.3	47.5	31.3
Coal			0.5	1.5
Logistics	6.8	5.4	4.6	4.2
Other investments	0.5	0.4	0.6	1.4
Total	100%	100%	100%	100%

(1) Including Vale Inco s 2006 gross revenues prior to its acquisition.

(2) Revenues included in the nickel product segment in our consolidated financial statements.

Ferrous minerals:

Iron ore and iron ore pellets. We operate three systems in Brazil for producing and distributing iron ore. The Northern and the Southeastern Systems are fully integrated, consisting of mines, railroads, a maritime terminal and a port. The Southern System consists of three mining complexes and two maritime terminals. We operate 10 pellet-producing facilities in Brazil, one of which is a joint venture. We also have a 50% stake in a joint venture that owns three pelletizing plants in Brazil and a 25% stake in a pellet company in China.

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Manganese and ferroalloys. We conduct our manganese mining operations through subsidiaries in Brazil, and we produce several types of manganese ferroalloys through subsidiaries in Brazil, France and Norway.

Non-ferrous minerals:

Nickel. Our principal nickel mines and processing operations are conducted by our wholly-owned subsidiary Vale Inco Limited (Vale Inco), which has mining operations in Canada and Indonesia. We own and operate, or have interests in, nickel refining facilities in the United Kingdom, Japan, Taiwan, South Korea and China.

Aluminum. We are engaged in bauxite mining, alumina refining, and aluminum metal smelting. In Brazil, we own a bauxite mine, an alumina refinery and two aluminum smelters. We have a 40% interest in Mineração Rio do Norte S.A. (MRN), a bauxite producer, operations of which are also located in Brazil.

Copper. We have copper mining operations in Brazil and Canada. In Brazil, we produce copper concentrates at Sossego in Carajás, in the state of Pará. In Canada, we produce copper concentrate, copper anode and copper cathode in conjunction with our nickel mining operations at Sudbury, Thompson and Voisey s Bay.

PGMs. We produce platinum-group metals as by-products of our nickel mining and processing operations in Canada. The PGMs are concentrated at our Port Colborne facilities, in the Province of Ontario, Canada, and refined at our precious metals refinery in Acton, England.

Other precious metals. We produce gold and silver as by-products of our nickel mining and processing operations in Canada. Some of these precious metals are upgraded at our facilities in Port Colborne, Ontario, and all are refined by unrelated parties in Canada.

Other non-ferrous minerals. We are the world s fourth-largest producer of kaolin for the paper industry and Brazil s sole producer of potash. We produce cobalt as a by-product of our nickel mining and processing operations in Canada and refine it at our Port Colborne facilities.

Coal. We produce metallurgical and thermal coal through Vale Australia Holdings (Vale Australia), which operates coal assets in Australia through wholly-owned subsidiaries and unincorporated joint ventures. We also have minority interests in Chinese coal and coke producers.

Logistics. We are a leading provider of logistics services in Brazil, with railroads, maritime terminals and a port. Two of our three iron ore systems incorporate an integrated railroad network linked to automated port and terminal facilities, which provide rail transportation for our mining products, general cargo and passengers, bulk terminal storage, and ship loading services for our mining operations and for customers. We also have a 31.3% interest in Log-In Logística Intermodal S.A. (Log-In), which provides container-based logistics services in Brazil, and a 41.5% interest in MRS Logística S.A. (MRS), which transports our iron ore products from the Southern System mines to our Guaíba Island and Itaguaí maritime terminals, in the state of Rio de Janeiro.

Business strategy

Our mission is to transform mineral resources into prosperity and sustainable development. Our vision is to become the largest mining company in the world and to surpass current standards of excellence in research, development, project implementation and business operations. Given the current economic environment, the following objectives have assumed paramount importance in the short term: cost minimization, operational and financial flexibility and the reconciliation of cash preservation with the pursuit of profitable growth options. However, we maintain our long-term growth strategy, and we aim to increase our geographical and product diversification and logistics capabilities. We continue to review opportunities to make strategic acquisitions,

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while focusing on disciplined capital management in order to maximize return on invested capital and total return to shareholders. Below we highlight our major business strategies.

Maintaining our leadership position in the global iron ore market

We continue to consolidate our leadership in the global iron ore market. In 2007 and 2008, we had an estimated market share of 32.5% and 30.2%, respectively, of the total volume traded in the seaborne market. We are committed to maintaining our position in the global iron ore market by strengthening relationships with customers, focusing our product line to capture industry trends, increasing our production capacity in line with demand growth, controlling costs and strengthening our logistics infrastructure of railroads, ports, shipping and distribution centers. We believe that our strong relationships with major customers, reinforced through long-term contracts, high quality products and a strong technical marketing strategy, will help us achieve this goal. We have also encouraged steelmakers to develop steel slab plants in Brazil, through joint ventures in which we may hold minority stakes, in order to create additional demand for our iron ore.

Achieving leadership in the nickel business

We are the world s second-largest nickel producer, with large-scale, long-life and low-cost operations, a substantial resource base, advanced technology and a robust growth profile. We are a leading producer of high-quality nickel products for non-stainless steel applications, such as plating, alloy steels, high nickel alloys and batteries, which represented 67% of our nickel sales in 2008. Our long-term goal is to strengthen our leadership in the nickel business. Given the challenges imposed by the near- and medium-term prospects for the balance between nickel supply and demand, we are exercising strong capital discipline while evaluating our growth projects and the ramp-up of our Goro and Onça Puma projects.

Expanding our aluminum activities

We are developing and increasing production capacity in our aluminum operations, focusing on the upstream portion of the production chain by developing low-cost bauxite and alumina projects. We have large, undeveloped high-quality bauxite reserves and opportunities for low-cost expansions in alumina refining. We are working on the development of these opportunities. We are also investing in mineral exploration to increase our bauxite resources.

Developing our copper resources

We believe that our Brazilian copper projects, which are all situated in the Carajás mineral province, in the Brazilian state of Pará, could be among the most competitive in the world in terms of investment cost per metric ton of ore. We are developing the Salobo project, and we are testing new technology that, if successful, could permit the development of other copper projects in this region. We expect these copper mines to benefit from our infrastructure facilities serving the Northern System. We are also engaged in mineral exploration in several countries to increase our reserve base.

Investing in coal

We are pursuing various opportunities to become a large global player in coal businesses. We have coal operating assets and a portfolio of exploration projects in Australia and two joint ventures in China. In addition, we recently acquired coal assets in Colombia. We intend to continue pursuing organic growth in the coal business through the development of the Moatize project in Mozambique, development of more advanced coal exploration projects in Australia and mineral exploration initiatives in several countries, including Colombia and Mongolia.

Investing in fertilizers

We are pursuing various opportunities to become a large producer of fertilizers in order to benefit from rising global consumption. Per capita income growth correlates with increased use of fertilizers. Recently, biofuels have emerged as another driver of demand for fertilizers. Ethanol is made from sugar cane in Brazil

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and corn in the United States, while biodiesel is made mainly from soybeans, palm and rapeseed. South America and emerging Asian countries are expected to be the major drivers of future growth in global potash consumption. Brazil is expected to play a key role, given its position as a global agricultural powerhouse where modernization has recently been taking place at a fast pace and large investments in logistics infrastructure are planned. We have a phosphate project in Peru under development, and we recently acquired two potash projects, in Argentina and Canada. Moreover, we are engaged in potash and phosphate mineral exploration in several countries.

Diversification and expansion of our resource base

We are engaged in an active mineral exploration program, with efforts in 22 countries around the globe. We are mainly seeking new deposits of bauxite, coal, copper, diamond, iron ore, manganese ore, nickel, phosphate, platinum group metals, potash and uranium. Mineral exploration is an important part of our organic growth strategy.

Enhancing our logistics capacity to support our iron ore business

We believe that the quality of our railway assets and our many years of experience as a railroad and port operator, together with the lack of efficient transportation for general cargo in Brazil, position us as a leader in the logistics business in Brazil. We have been expanding the capacity of our railroads primarily to meet the needs of our iron ore business.

To support our commercial strategy for our iron ore business, we are investing in a dedicated shuttle service from Brazil to Asia and in the development of distribution centers in Asia and the Middle East in order to minimize the freight-cost differential between Brazil and Australia to Asia and to increase the competitiveness of our iron ore business in these regions.

Developing power generation projects

Energy management and efficient supply have become a priority for us. As a large consumer of electricity, we believe that investing in power generation projects to support our operations will help protect us against volatility in the price of energy, regulatory uncertainties and the risk of energy shortages. Accordingly, we have developed hydroelectric power generation plants in Brazil, Canada and Indonesia, and we are using the electricity from these projects to supply our internal needs. In 2007, we began investing in natural gas exploration in Brazil through consortia. We are seeking to diversify and optimize our energy matrix through increased use of thermal coal, renewable fuels and natural gas.

Significant changes in our business

The scope of our operations has been enlarged by acquisitions, dispositions, the completion of major investment projects and production adjustments. We summarize below the major acquisitions, divestitures, investment projects and other developments having a significant effect on our financial performance since the beginning of 2008.

Production adjustments

Since November 2008, we have been taking steps to adjust our production plans given the change in the global economic outlook. We have shut down some mines in the Southern and Southeastern Systems, in the state of Minas Gerais, Brazil. In addition, we have reduced the production pace at other sites to adjust our output to anticipated lower sales volumes. Only three of our 10 pellet plants are currently operating. We have shut down five of the seven pellet plants located at the port of Tubarão, in the state of Espírito Santo, Brazil, a pellet plant in São Luís, in the state of Maranhão, and a pellet plant in Fábrica, in the state of Minas Gerais.

We stopped our manganese ore and ferroalloy operations in Brazil from December 2008 to January 2009. We will keep our Dunkerque ferroalloy plant in France idle until April 2009, and extend furnace maintenance

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at the plant in Mo I Rana, Norway, until June 2009. These changes will cut production by 600,000 metric tons of manganese ore and 90,000 metric tons of ferroalloys.

In December 2008, we shut down one of the two blast furnaces at our pig iron operation in Carajás, which is now operating at 40% of its nominal capacity.

In our nickel operations, we have discontinued the use of higher-cost thermal power generation, which will lead to a reduction of nickel-in-matte output by approximately 17,000 metric tons annually in Indonesia. In January 2009, we shut down the Copper Cliff South mine (CC South), located in the mining site of Sudbury, province of Ontario, Canada, for an undetermined period of time. CC South has an annual production capacity of 8,000 metric tons of finished nickel. We plan to shut down our Sudbury operation for a period of eight weeks, from June 1 to July 27, 2009, and our Voisey s Bay operation during the entire month of July 2009.

In October 2008, we reduced activities at one of our aluminum smelters, Valesul, located in the state of Rio de Janeiro, Brazil, to 40% of its nominal annual capacity of 95,000 metric tons, which was the level required to operate solely with energy produced by Valesul. In April 2009 Valesul shifted from aluminum smelting to being a producer of billets for extrusion using purchased primary ingots and scrap as raw materials.

In response to weak market demand for kaolin, we reduced the production by our subsidiary CADAM S.A., in the state of Amapá, Brazil, by 30% of its nominal production capacity. We reduced the kaolin production of our subsidiary PPSA by 200,000 metric tons per year at its sites in the state of Pará, Brazil, effective January 1, 2009.

Companhia Siderúrgica Vitória

We are acquiring the interest of our former joint venture partner Baosteel Group Corporation in Companhia Siderúrgica Vitória (CSV), which was established to construct an integrated steel slab plant in the Brazilian state of Espírito Santo.

Global offer

In the second half of 2008, Vale conducted a global equity offering of 256,926,766 common shares and 189,063,218 preferred shares, including ADSs. The aggregate proceeds of the global offering to Vale, after underwriting discounts and commissions, and including the proceeds from the exercise of the over-allotment option, were approximately US$12.2 billion, which we intend to use for capital expenditures and strategic acquisitions and to maximize our financial flexibility.

Pellet plant leases

In 2008, we leased four pelletizing plants located in Tubarão complex, in Vitória, in the Brazilian state of Espírito Santo, which are owned by joint ventures in which we have a stake. We have consolidated 100% of the sales and related costs of pellets produced by these pelletizing operations in our financial statements, which simplified and increased the transparency of our operational and financial reporting. These operating leases are consistent with our continuous search for opportunities to maximize shareholder value creation. They enabled us to increase our exposure to the iron ore business and capture synergies arising from operations at the Tubarão Port.

Investing in shipping

As part of our commercial strategy for our iron ore business, we are investing in the development of a maritime shuttle service between Brazil and Asia that is intended to minimize the freight-cost differential between Brazil and Australia

to Asia and to enhance our competitiveness in the Asian market, which we expect to account for most of the future growth in the global demand for iron ore. Accordingly, we have ordered the construction of 12 large ore carriers, bought used ships and entered into freight contracts. The

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investment in new large ore carriers amounted to US$1.6 billion, while we have spent US$74 million on the acquisition of used ships.

Acquisitions

Copper exploration assets in the African copperbelt

In December 2008, we entered into an agreement with African Rainbow Minerals Limited and its 65%-owned subsidiary, TEAL Exploration & Mining Incorporated (TEAL), to acquire a 50% interest in a joint venture company that will own TEAL s subsidiaries for CAD81 million, enhancing our strategic growth options in the copper business in Africa. The transaction was completed in the first quarter of 2009.

TEAL has three copper projects in the feasibility and approval stages in the African copperbelt, which together could represent a nominal production capacity of 65,000 metric tons of copper per year in the next few years, and an extensive and highly prospective copper exploration portfolio, which indicates a potential for more than 300 million metric tons of high grade ore (greater than 1.5% Cu).

Coal assets in Colombia

In December 2008, we agreed to acquire 100% of the export coal assets of Cementos Argos S.A. (Argos) in Colombia for US$300 million. Argos s coal assets consist of two mining concessions, a port and a minority stake in a railroad. Since Colombia is the world s third-largest exporter of high-quality thermal coal, given its low level of sulfur and high calorific value, we are seeking to build a coal asset platform in the country to enhance our growth options in the coal business. The acquisition was completed in the first quarter of 2009.

Potash deposits in Argentina and Canada

In the first quarter of 2009, we acquired from Rio Tinto Plc (Rio Tinto) 100% of the Rio Colorado project (Rio Colorado), in the provinces of Mendoza and Neuquén, Argentina, and 100% of the Regina project (Regina), in the province of Saskatchewan, Canada, for US$850 million. Rio Colorado includes the development of a mine with an initial nominal capacity of 2.4 Mtpy of potash, with potential for expansion of up to 4.35 Mtpy, construction of a 350-kilometer railway spur, port facilities and a power plant. Regina is still in the exploration stage, with potential to deliver an annual output of 2.8 Mt of potash. Existing infrastructure near the project will allow transportation of the final product to Vancouver, facilitating access to the fast-growing Asian market.

Corumbá iron ore assets

In January 2009, we agreed to acquire from Rio Tinto 100% of the Corumbá open-pit iron ore mining operations in Brazil, with associated logistics assets, for US$750 million. The Corumbá iron ore mine is a world-class asset, characterized by high grade and rich in direct-reduction lump ores. The logistics assets support 70% of the operations transportation needs. The acquisition of the Corumbá assets is subject to certain Brazilian government approvals.

Mining rights in Minas Gerais

In the second quarter of 2008, we acquired from Mineração Apolo iron ore mining rights located in the Rio Acima and Caeté districts, in the Brazilian state of Minas Gerais. We made payments amounting to US$128 million in 2008, and we will make remaining payments of R$7 million (approximately US$3 million).

Organic growth

We have a challenging program of investments in the organic growth of our businesses. Our main investment projects are summarized under *Capital expenditures*, and detailed in the discussion of each of

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our lines of business. The projects that have had the largest impact on our financial performance since the beginning of 2008 are summarized below:

In our iron ore business, Fazendão started up in the first quarter of 2008 and has an annual production capacity of 15.8 million metric tons of run-of-mine.

In iron ore pellets, we concluded two pellet projects in 2008, Zhuhai and Samarco III, and one in the first half of 2009, Vargem Grande (formerly Itabiritos). Vargem Grande s operations have a nominal annual production capacity of 7 million metric tons.

In our nickel business, we completed the Dalian nickel processing plant in 2008. Dalian, located in the province of Liaoning, China, began operations in April 2008 and will process the nickel oxide sinter produced by Goro, as well as other existing operations. Dalian has annual production capacity of 35,000 metric tons of finished nickel. Goro, in New Caledonia, is expected to start up in the first half of 2009 and to ramp up over a four-year period to a nominal annual production capacity of 60,000 metric tons of nickel and 4,600 metric tons of cobalt.

In our aluminum business, we completed the first expansion of Paragominas (Paragominas II), from 5.4 to 9.9 million metric tons per year, in the first half of 2008. We also completed the construction of stages 6 and 7 at our Alunorte alumina facility in Brazil, which started operating in the second half of 2008, adding 1.9 million metric tons to its nominal production capacity.

In copper, we started up a hydro-metallurgical plant in December 2008 to test the application of hydro-metallurgical technology for industrial-scale processing of more complex copper minerals to produce copper cathode. This plant processes copper concentrate produced at our Sossego mine, in the Carajás region of the Brazilian state of Pará. It has an annual production capacity of 10,000 metric tons of copper cathode.

Divestitures and asset sales

In line with our strategy, we have continued to reduce our holdings of non-strategic assets. We summarize below our key dispositions and asset sales since the beginning of 2008.

Jubilee Mines. In the first quarter of 2008, we sold our minority stake in Jubilee Mines, a nickel-producing company in Australia, for US$130 million.

Usiminas. In the second quarter of 2009, we sold our remaining 2.93% interest in Usinas Siderúrgicas de Minas Gerais S.A. (Usiminas) for R$595 million.

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LINES OF BUSINESS

Our principal lines of business consist of mining and logistics. We also invest in energy to supply part of our consumption. Below is an outline of the information provided in this section:

1. Ferrous minerals

1.1 Iron ore
1.1.1 Operations
1.1.2 Production
1.1.3 Projects and exploration

1.2 Iron ore pellets
1.2.1 Operations
1.2.2 Production
1.2.3 Projects

1.3 Iron ore and iron ore pellets
1.3.1 Customers, sales and marketing
1.3.2 Competition

1.4 Manganese ore

1.5 Ferroalloys

1.6 Manganese ore and ferroalloys competition

1.7 Pig iron

2. Non-ferrous minerals

2.1 Nickel
2.1.1 Operations
2.1.2 Production
2.1.3 Projects and exploration
2.1.4 Customers, sales and marketing
2.1.5 Competition

2.2 Aluminum
2.2.1 Bauxite
2.2.2 Alumina
2.2.3 Aluminum
2.2.4 Customers and sales
2.2.5 Competition
2.3 Copper
2.3.1 Operations

2.3.2 Production
2.3.3 Projects and exploration
2.3.4 Customers and sales
2.3.5 Competition

2.4 PGMs and other precious metals

2.5 Other non-ferrous minerals
2.5.1 Cobalt
2.5.2 Kaolin
2.5.3 Potash
2.5.4 Projects and exploration

3. Coal

3.1 Operations
3.2 Production
3.3 Projects and exploration
3.4 Customers and sales
3.5 Competition

4. Infrastructure

4.1 Logistics
4.1.1 Railroads
4.1.2 Ports and maritime terminals
4.1.3 Shipping
4.1.4 Projects

4.2. Energy
4.2.1 Operations
4.2.2 Projects

5. Other investments

5.1 Steel

The following map shows the locations of our operations worldwide.

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1. Ferrous minerals

Our ferrous minerals business segment includes:

- iron ore mining;
- iron ore pellet production;
- manganese ore mining; and
- ferroalloy production.

1.1 Iron ore

1.1.1 Operations iron ore

We conduct our iron ore business in Brazil, primarily at the parent-company level and through our subsidiary Urucum Mineração S.A. (Urucum). Our iron ore mining and related operations are concentrated in three systems: the Southeastern System, the Southern System and the Northern System, each with its own transportation capability.

Company	System	Our share of capital (%)		Partners
		Voting	Total	
Vale	Northern, Southeastern and Southern			
Urucum	Southeastern	100	100	

Southeastern System

The Southeastern System mines are located in the Iron Quadrangle region of the state of Minas Gerais, where they are divided into three mining complexes (Itabira, Minas Centrais, and Mariana), and in the state of Mato Grosso do Sul, where Urucum s mine is located.

The ore reserves in the three mining complexes have high ratios of itabirite ore relative to hematite ore. Itabirite ore has iron grade of 35-60% and requires concentration to achieve shipping grade, which is at least 63.5% average iron grade. The Urucum ore reserves have high ratios of hematite ore, which has an average grade of approximately 62.3%.

We conduct open-pit mining operations in the Southeastern System. At the three mining complexes, we generally process the run-of-mine by means of standard crushing, classification and concentration steps, producing sinter feed, lump ore and pellet feed in the beneficiation plants located at the mining sites. At Urucum s mine, we generally process the run-of-mine by means of standard crushing and classification steps, producing only lump ore. In 2008, we produced 99.4% of the electric energy consumed in the Southeastern System at our hydroelectric power plants (Igarapava, Porto Estrela, Funil, Candonga, Aimorés, Capim Branco I and Capim Branco II).

We own and operate integrated railroad and terminal networks in the three mining complexes, which are accessible by road or by spur tracks of our EFVM railroad. The EFVM railroad connects these mines to the Tubarão port in Vitória, in the state of Espírito Santo. For a more detailed description of the networks, see *Logistics*, below. We do not own or operate logistics facilities at the site of Urucum s mine. Urucum iron ore is delivered to customers by barges through the Paraguay River.

Southern System

The Southern System mines are located in the Iron Quadrangle region of the state of Minas Gerais in Brazil. The mines of Minerações Brasileiras Reunidas (MBR) have been incorporated into this system and

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are now operated at the parent-company level pursuant to an asset lease agreement. The Southern System has three major mining complexes: the Minas Itabirito complex (comprised of four mines, with two major beneficiation plants and three secondary beneficiation plants); the Vargem Grande complex (comprised of three mines and one major beneficiation plant); and the Paraopeba complex (comprised of four mines and three beneficiation plants).

We use wet beneficiation processes to convert run-of-mine obtained from open-pit mining operations into sinter feed, lump ore and pellet feed, in addition to *hematitinha*, a product used primarily by Brazilian pig-iron producers. In 2008, we produced 72% of the electric energy consumed in the Southern System at our hydroelectric power plants (Igarapava, Porto Estrela, Funil, Candonga, Capim Branco I and Capim Branco II).

We enter into freight contracts with our affiliate, MRS, a railway company, to transport our iron ore products at market prices from the mines to our Guaíba Island and Itaguaí maritime terminals in the state of Rio de Janeiro.

Northern System

The Northern System mines, located in the Carajás mineral province of the Brazilian state of Pará, contain some of the largest iron ore deposits in the world. The reserves are divided into northern and southern ranges situated approximately 35 kilometers apart. Since 1983, we have been conducting mining activities in the northern range, which is divided into four main mining bodies. The Northern System has open-pit mines and an ore-processing plant. The mines are located on public lands for which we hold mining concessions.

Because of the high grade (66.7% on average) of the Northern System deposits, we do not have to operate a concentration plant at Carajás. The beneficiation process consists simply of sizing operations, including screening, hydrocycloning, crushing and filtration. Output from the beneficiation process consists of sinter feed, pellet feed, special fines for direct reduction processes and lump ore. We obtain all of the electrical power for the Northern System at market prices from regional utilities.

We operate an integrated railroad and terminal network in the Northern System. After completion of the beneficiation process, our EFC railroad transports the iron ore to the Ponta da Madeira maritime terminal in the state of Maranhão. To support our Carajás operations, we have housing and other facilities in a nearby township. These operations are accessible by road, air and rail.

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1.1.2 Production iron ore

Mine/Plant	Type	Production for the year ended December 31, 2006 (million metric tons)	2007 (million metric tons)	2008 (million metric tons)	Nominal capacity(1)	Recovery rate (%)
Southeastern System						
Itabira complex						
Cauê(2)	Open pit	23.7	24.8	21.5	24.6	69.8
Conceição(2)	Open pit	23.3	21.9	20.3	22.0	74.7
Minas Centrais complex						
Água Limpa/Cururu(3)	Open pit	4.2	4.2	4.7	4.7	55.5
Gongo Soco	Open pit	6.7	6.5	5.0	6.1	80.0
Brucutu	Open pit	7.7	21.9	26.4	30.0	74.0
Andrade(4)	Open pit	1.4	1.3	1.4	1.4	100
Mariana complex						
Alegria	Open pit	12.9	13.5	12.3	12.4	72.3
Fábrica Nova(5)	Open pit	13.2	14.6	14.0	15.6	78.2
Fazendão(6)	Open pit	0.7	3.7	9.8	15.8	92.8
Timbopeba	Open pit	2.8	1.3			
Urucum	Open pit	1.4	1.1	1.0	2.0	60.0
Total Southeastern System		98.0	114.9	116.4	134.6	
Southern System(7)						
Minas Itabirito complex						
Segredo/João Pereira	Open pit	11.5	11.8	12.1	12.1	72.3
Sapecado/Galinheiro(8)	Open pit	17.1	17.4	15.1	18.8	76.8
Vargem Grande complex						
Tamanduá(9)	Open pit	10.0	10.2	9.8	10.0	81.6
Capitão do Mato(9)	Open pit	11.4	11.5	9.7	11.5	80.6
Abóboras	Open pit	4.3	6.0	4.2	6.1	100
Paraopeba Complex						
Jangada	Open pit	4.8	3.9	4.3	5.0	84.7
Córrego do Feijão	Open pit	8.2	9.3	8.4	8.4	84.7
Capão Xavier	Open pit	13.5	13.3	13.5	13.5	86.8
Mar Azul	Open pit	3.5	5.9	3.5	4.0	90.6
Total Southern System		84.3	89.3	80.5	88.8	
Northern System						
Serra Norte(10)						
N4W	Open pit	34.3	40.3	44.3	47.2	89.3
N4E	Open pit	19.2	15.4	13.2	15.1	89.3
N5-W	Open pit	15.2	30.4	34.7	34.7	89.3
N5E(11)	Open pit	13.1	5.6	4.4	5.0	89.3
Total Northern System		81.8	91.7	96.5	100.4	
Total Vale		264.2	295.9	293.4	323.8	

(1) These figures represent nominal capacity in 2008, which is equivalent to planned production for 2008.

(2) The run-of-mine from Minas do Meio is sent to the Cauê and Conceição concentration plants.

(3) Água Limpa/Cururu is owned by Baovale, in which we own 100% of the voting shares and 50% of the total shares. Production figures for Água Limpa/Curucu have not been adjusted to reflect our ownership interest.

(4) We lease the Andrade mine from Companhia Siderúrgica Belgo-Mineira pursuant to a 40-year contract.

(5) Fábrica Nova ore is sent to the Alegria and Fábrica Nova plants.

(6) Fazendão ore is sent to the Alegria plant and Samarco.

(7) Former MBR mines were included in other complexes in the Southern System.

(8) Galinheiro mine was separated from the Sapecado mine and includes the Pico mine.

(9) Tamanduá and Capitão do Mato ores are processed at the Vargem Grande plant.

(10) All Serra Norte ores are processed at the Carajás plant.

(11) Our former N5E-N mine was incorporated in the N5E reserve model.

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1.1.3 Projects and exploration iron ore

Carajás 130 mtpy. This brownfield project, located in the Northern System, will add 30 million metric tons per year to our capacity with the construction of a new composite primary crushing plant, beneficiation and classification units and significant investment in logistics (including car dumpers, stockyards and sideways terminals). Our estimated total investment in this project is US$2.478 billion. This project is currently scheduled to come on stream in the first half of 2011, subject to obtaining the required environmental licenses.

Carajás - additional 10 mtpy. This brownfield project, also located in the Northern System, is being developed to partially compensate for the delay of the Carajás project described above. Our estimated total investment in this project is US$290 million, representing a relatively low capital expenditure cost per ton of US$29, given the project s focus on increasing the capacity of iron ore beneficiation. Start-up is scheduled for the second half of 2009.

Serra Sul (mine S11D). This project, located in the Northern System, is the largest greenfield project in our history and in the history of the iron ore industry. We expect it to have an annual production capacity of 90 million metric tons of iron ore. Completion is currently scheduled for the first half of 2013, subject to obtaining the required environmental licenses. Our estimated total investment in this project is US$11.297 billion. This project is subject to approval by our Board of Directors.

Apolo (previously Maquiné - Baú). We expect this project, located in the Southeastern System, to have annual production capacity of 24 million metric tons. The estimated total cost of the project, which is subject to approval by our Board of Directors, is US$2.509 billion. Completion is scheduled for the first half of 2013, subject to market conditions.

We are currently engaged in mineral exploration efforts for iron ore deposits in several states in Brazil. We are also seeking iron ore exploration opportunities in Africa, Australia and India.

1.2 Iron ore pellets

1.2.1 Operations iron ore pellets

Directly and through joint ventures, we produce iron ore pellets in Brazil and in China, as set forth in the following table.

Company	Location	Our share of capital		Partners
		Voting (%)	Total	
	Brazil:			
Vale	Tubarão, Fábrica, Vargem Grande and São Luís			
Hispanobras	Tubarão	51.0	50.9	Arcelor Mittal
Samarco	Mariana and Anchieta	50.0	50.0	BHP Billiton
	China:			
Zhuhai YPM	Zhuhai, Guangdong	25.0	25.0	

Zhuhai Yueyufeng Iron and Steel Co., Ltd Pioneer Iron and Steel Group Co. Ltd.

In the Tubarão port area, in the Brazilian state of Espírito Santo, we operate our wholly-owned pelletizing plants, Tubarão I and II, four plants with respect to which we signed operating leases in 2008, and our jointly-owned plant, Hispanobras. We send iron ore from our Southeastern System mines to these plants and use our logistics infrastructure to distribute their final products.

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Our São Luís pelletizing plant, located in the Brazilian state of Maranhão, is part of the Northern System. We send Carajás iron ore to this plant and ship its production to customers through our Ponta da Madeira maritime terminal.

The Fábrica and Vargem Grande (formerly Itabiritos) pelletizing plants, located in the Brazilian state of Minas Gerais, are part of the Southern System. We send some of the iron ore from the Fábrica Nova mine to the Fábrica plant, and we send iron ore from the Pico mine to the Vargem Grande plant. We transport pellets from these plants using MRS.

Samarco operates a mine, Germano, and three pelletizing plants in two operating sites. The Germano mine is located in Mariana, Minas Gerais, close to our Southeastern System, and the pelletizing plants are located in the Ponta Ubu unit, in Anchieta, Espírito Santo. Iron ore from Germano and our Southeastern System mine Fábrica Nova is sent to the Samarco pelletizing plants using a 396-kilometer pipeline, the longest pipeline in the world for the conveyance of iron ore. Samarco has its own port facilities to transport its production.

The Zhuhai YPM pelletizing plant, in China, is part of the Yueyufeng Steelmaking Complex. It has port facilities, which we use to send feed from our mines in Brazil. Zhuhai YPM s main customer is Yueyufeng Iron & Steel (YYS), which is also located in the Yueyufeng Steelmaking Complex.

We sell pellet feed to our pelletizing joint ventures at market prices. Historically, we have supplied all of the iron ore requirements of our wholly-owned pelletizing plants and joint ventures, except for Samarco and Zhuhai YPM, to which we supply only a portion of their needs. Of our total 2008 pellet production, 68.3% was blast furnace pellets, and the remaining 31.7% was direct reduction pellets, which are used in steel mills that employ the direct reduction process rather than blast furnace technology.

The following table sets forth information regarding our iron ore sales to our pelletizing joint ventures for the periods indicated.

	Sales for the year ended December 31,		
	2006	**2007**	**2008**
	(million metric tons)		
Hispanobras	4.9	4.7	4.1
Itabrasco(1)	4.3	4.4	3.2
Kobrasco(2)	5.3	4.4	1.6
Nibrasco(3)	8.0	7.4	2.0
Samarco(4)	7.5	7.1	11.3
Zhuhai YPM(5)			0.8
Total	30.0	28.1	23.0

(1) Sales until September 2008, since we signed a 10-year operating lease contract for Itabrasco s pelletizing plant in October 2008.

(2) Sales until May 2008, since we signed a five-year operating lease contract for Kobrasco s pelletizing plant in June 2008.

(3) Sales until April 2008, since we signed a 30-year operating lease contract for Nibrasco s two pelletizing plants in May 2008.

(4) In 2006 we sold 1.9 million metric tons of concentrate and 5.6 million metric tons of run-of-mine; in 2007 we sold 1.9 million metric tons of concentrate and 5.2 million metric tons of run-of-mine; and in 2008 we sold 1.8 million metric tons of concentrate and 9.5 million metric tons of run-of-mine.

(5) Zhuhai YPM started operations in January 2008.

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1.2.2 Production iron ore pellets

Company	Production for the year ended December 31, 2006	2007	2008	Nominal capacity
	(million metric tons)			
Vale(1)	14.2	17.6	26.6	31.7
GIIC(2)	1.3			
Hispanobras	4.5	4.3	3.8	3.8
Itabrasco(3)	4.0	4.0	2.9	
Kobrasco(4)	4.8	5.0	2.1	
Nibrasco(5)	9.1	9.0	2.7	
Samarco	13.9	14.3	17.1	21.8
Total	51.8	53.7	55.2	58.5

(1) Figure includes actual production, including production from the four pellet plants we leased in 2008.

(2) We sold our interest in GIIC in May 2006.

(3) Production until September 2008, since we signed a 10-year operating lease contract for Itabrasco s pelletizing plant in October 2008.

(4) Production until May 2008, since we signed a five-year operating lease contract for Kobrasco s pelletizing plant in June 2008.

(5) Production until April 2008, since we signed a 30-year operating lease contract for Nibrasco s two pelletizing plants in May 2008.

1.2.3 Projects iron ore pellets

Tubarão VIII. We are building a new pelletizing plant at our existing seven-plant complex at the Tubarão Port. We expect the plant to have annual production capacity of 7.5 million metric tons. Completion is scheduled for the first half of 2011. The estimated total cost of this project is US$636 million. In response to market conditions for iron ore pellets, we have temporarily slowed down the project development.

Oman. In Oman, at the Sohar industrial complex, we are developing a pelletizing plant, a bulk terminal and a distribution center with capacity of 40 million metric tons. The plant will have annual nominal production capacity of 9 million metric tons of direct reduction pellets. The estimated total cost of this project is US$1.356 billion. Operations are scheduled to begin in the second half of 2010.

1.3 Iron ore and iron ore pellets

1.3.1 Customers, sales and marketing iron ore and iron ore pellets

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

In 2008, China accounted for 28.7% of our iron ore and iron ore pellet shipments, and Asia as a whole accounted for 47.8%. Europe accounted for 24.4%, followed by Brazil with 19.0%. Our 10 largest customers collectively purchased 143.5 million metric tons of iron ore and iron ore pellets from us, representing 48.5% of our 2008 iron ore and iron ore pellet shipments and 50.9% of our total iron ore and iron ore pellet revenues. With the exception of Arcelor Mittal, which accounted for 13.6% of our shipments of iron ore and iron ore pellets in 2008, no individual customer accounted for more than 10.0% of our shipments of iron ore and iron ore pellets for any of the three years ended December 31, 2008.

In 2008, the Asian market (primarily China and Japan) and the European market were the primary markets for our blast furnace pellets, while North America, the Middle East and North Africa were the primary markets for our direct reduction pellets.

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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 clients. 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, Muscat (Oman) and Shanghai (China), which support the sales made by our wholly-owned subsidiary located in Saint-Prex, Switzerland. These offices also allow us to stay in close contact with our customers, monitor their requirements and our contract performance, and ensure that our customers receive timely deliveries.

1.3.2 Competition iron ore and iron ore pellets

The global iron ore and iron ore pellet markets are highly competitive. The main factors affecting competition are price, quality, 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 and Rio Tinto Ltd. Although the transportation costs of delivering iron ore from Australia to Asian customers are generally lower than ours as a result of Australia s 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 can produce the intended final product in the most economic 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, improving productivity in blast furnaces, which is particularly important during periods of high demand.

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 clients to help determine the blend that best suits each particular customer.

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 are developing a dedicated shuttle service from Brazil to China, aimed at enhancing our ability to offer our products in the Chinese market at competitive prices and to increase our market share. To support this strategy, we will order new ships, purchase used vessels and enter into long-term freight contracts.

Our principal competitors in Europe are Kumba Iron Ore Limited; Luossavaara Kiirunavaara AB (LKAB); Société Nationale Industrielle et Minière (SNIM); Rio Tinto Ltd.; and BHP Billiton. We are competitive in the European market for the same reasons we are competitive in Asia, as well as the proximity of our port facilities to European customers.

The Brazilian iron ore market is also competitive. There are several small iron ore producers and new companies with developing projects, such as Anglo Ferrous Brazil, MMX, MHAG and Bahia Mineração. At the same time, there are vertically integrated steel companies such as CSN and Mannesmann. Usiminas has become partially integrated with the acquisition of an iron ore company. Although pricing is relevant, quality and reliability are important competitive factors as well. We believe that our integrated transportation systems, high-quality ore and technical services make us a strong competitor in the Brazilian market.

With respect to pellets, our major competitors are Luossavaara Kiirunavaara AB (LKAB), Cleveland-Cliffs Inc., Quebec Cartier Mining Co., Iron Ore Company of Canada (a subsidiary of Rio Tinto Ltd.) and Gulf Industrial Investment Co.

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1.4 Manganese ore

We conduct our manganese mining operations in Brazil through our subsidiaries Vale Manganês S.A. (Vale Manganês) and Urucum.

Company	Location	Our share of capital Voting (%)	Our share of capital Total (%)
	Brazil:		
Vale Manganês(1)	Pará and Minas Gerais	100	100
Urucum	Mato Grosso do Sul	100	100

(1) Vale Manganês s mines are Azul and Morro da Mina.

Our mines produce three types of manganese ore products:

metallurgical ore, used primarily for the production of ferroalloys;

natural manganese dioxide, suitable for the manufacture of electrolytic batteries; and

chemical ore, used in several industries for the production of fertilizer, pesticides and animal feed, and used as a pigment in the ceramics industry.

We operate on-site beneficiation plants at our Azul mine and at the Urucum mines, which are accessible by road. The Azul and Urucum mines have high-grade ores (at least 40% manganese grade), while our Morro da Mina mine has low-grade ores. All of these mines obtain electrical power at market prices from regional electric utilities.

The following table sets forth information about our manganese production.

Mine	Type	Production for the year ended December 31, 2006	2007	2008	Nominal capacity	Recovery rate
		(million metric tons)				
Azul(1)	Open pit	1.7	0.9	2.0	2.5	63.3
Morro da Mina	Open pit	0.2	0.1	0.1	0.3	93.2
Urucum(2)	Underground	0.4	0.3	0.2	0.5	83.0
Total		2.3	1.3	2.4	3.3	

(1) Given the need to prioritize iron ore transportation through the EFC railroad, we shut down the Azul mine from July to December 2007.

(2) Urucum has a five-year renewable lease agreement with CPFL for its plant in Corumbá, in the Brazilian state of Mato Grosso do Sul.

We are seeking opportunities for mineral exploration and development of manganese deposits mainly in Africa and Brazil.

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1.5 Ferroalloys

The following table sets forth the subsidiaries through which we conduct our ferroalloys business.

Company	Location	Our share of capital Voting (%)	Our share of capital Total (%)
Vale Manganês	Minas Gerais and Bahia, Brazil	100	100
Urucum	Mato Grosso do Sul, Brazil	100	100
Vale Manganèse France	Dunkerque, France	100	100
Vale Manganese Norway AS	Mo I Rana, Norway	100	100

We produce several types of manganese ferroalloys, such as high carbon and medium carbon ferro-manganese and ferro-silicon manganese. The production of ferroalloys consumes significant amounts of electricity, representing 7% of our total consumption in 2008. The electricity supply for our ferroalloy plant in Dunkerque, France and Mo I Rana, Norway are provided through a long-term contract. For information on the risks associated with potential energy shortages, see *Item 3. Key information Risk factors*.

The following table sets forth information about our ferroalloys production.

Company	Production for the year ended December 31, 2006	2007	2008	Nominal capacity
	(thousand metric tons)			
Vale Manganês(1)	260	288	288	368
Urucum(2)	21	22	20	20
Vale Manganèse France(3)	146	103	55	140
Vale Manganese Norway AS	107	129	112	120
NES(4)	6			
Total	540	542	475	648

(1) Vale Manganês has five plants in Brazil: Santa Rita, Barbacena and Ouro Preto in the state of Minas Gerais; and Simões Filho in the state of Bahia. We sold Vale Manganês s São João del-Rei plant in June 2007. From January 2006 to October 2007, we reduced capacity at Simões Filho due to weak demand for ferroalloys.

(2) Urucum has one plant in Corumbá in the Brazilian state of Mato Grosso do Sul.

(3)

From August to October 2007, we shut down our furnace at Vale Manganèse France due to technical problems. We shut it down again in August 2008 due to technical problems, and it is currently undergoing repairs.

(4) We sold our interest in NES (Nova Era Silicon S.A.) in February 2006.

1.6 Manganese ore and ferroalloys 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, electricity and logistics and reductants. We compete both with stand-alone producers and integrated producers that also mine their own ore. Our competitors are located principally in countries that produce manganese ore or steel.

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1.7 Pig iron

We conduct a pig iron operation in northern Brazil. This operation was conducted through our subsidiary Ferro-Gusa Carajás S.A. (FGC) until April 2008, when FGC was merged into Vale.

We utilize two conventional mini-blast furnaces to produce approximately 350,000 metric tons of pig iron per year, using iron ore from our Carajás mines in northern Brazil. The charcoal source is exclusively from eucalyptus trees grown in a cultivated forest of 82,000 acres, with the total project encompassing approximately 200,000 acres.

2. Non-ferrous minerals

2.1 Nickel

2.1.1 Operations nickel

We conduct our nickel operations primarily through our wholly-owned subsidiary Vale Inco. Vale Inco operates two nickel production systems, one in North America and Europe and the other in Asia and the South Pacific, as set forth in the following table.

System	Location	Operations
North America & Europe	Canada Sudbury, Ontario	Fully integrated mines, mill, smelter and refinery (producing intermediates and finished nickel and by-products)
	Canada Thompson, Manitoba	Fully integrated mines, mill, smelter and refinery (producing finished nickel and by-products)
	Canada Voisey s Bay, Newfoundland and Labrador	Mine and mill (producing nickel concentrate and by-products)
	U.K. Clydach, Wales	Stand-alone nickel refinery (producing finished nickel)
Asia & the South Pacific	Indonesia Sorowako, Sulawesi(1)	Mining and processing operations (producing nickel matte, an intermediate product)
	Japan Matsuzaka(2)	Stand-alone nickel refinery (producing finished nickel)
	Taiwan Kaoshiung(3)	Stand-alone nickel refinery (producing finished nickel)
	China Dalian, Liaoning(4)	Stand-alone nickel refinery (producing finished nickel)
	South Korea Onsan(5)	Stand-alone nickel refinery (producing finished nickel)

(1) Operations conducted through our 61%-owned subsidiary PT International Nickel Indonesia Tbk.

(2) Operations conducted through our 67%-owned subsidiary Vale Inco Japan Limited.

(3) Operations conducted through our 49.9%-owned subsidiary Taiwan Nickel Refining Corporation.

(4) Operations conducted through our 98%-owned subsidiary Vale Inco New Nickel Materials (Dalian) Co. Ltd.

(5) Operations conducted through our 25% interest in Korea Nickel Corporation.

North America & Europe

Sudbury operations

Our long-established mines in Sudbury, Ontario, are primarily underground operations with nickel sulfide ore bodies. These ore bodies also contain co-deposits of copper, cobalt, platinum-group metals, gold and silver. We have integrated mining, milling, smelting and refining operations to process ore into finished nickel at Sudbury. We also smelt and refine an intermediate product, nickel concentrate, from our Voisey s Bay operations. We ship a nickel intermediate product, nickel oxide, from our Sudbury smelter to our nickel refineries in Wales, Taiwan, China and South Korea for processing into finished nickel. In 2008, we produced

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19.1% of the electric energy consumed in Sudbury at our hydroelectric power plants there. The remaining electricity was purchased from Ontario s provincial electricity grid.

Thompson operations

Our long-established mines in Thompson, Manitoba, are primarily underground operations with nickel sulfide ore bodies. The ore bodies also contain co-deposits of copper and cobalt. We have integrated mining, milling, smelting and refining operations to process ore into finished nickel at Thompson. We also smelt and refine an intermediate product, nickel concentrate, from our Voisey s Bay operations. Low-cost energy is available from purchased hydroelectric power at our Thompson operations.

Voisey s Bay operations

Our Voisey s Bay mine, in Newfoundland and Labrador, is an open-pit operation with the potential for underground operations at a later stage. We mine nickel sulfide ore bodies here, which also contain co-deposits of copper and cobalt. We mill Voisey s Bay ore on site and ship it as an intermediate product (nickel concentrates) primarily to our Sudbury and Thompson operations for final processing (smelting and refining). A portion of our Voisey s Bay nickel concentrate is also toll-smelted and toll-refined by unrelated parties in Europe. The electricity requirements of our Voisey s Bay mine are supplied through diesel generators.

Clydach operations

Clydach is a stand-alone nickel refinery in the U.K. that processes a nickel intermediate product, nickel oxide, supplied from our Sudbury operations to produce finished nickel.

Asia & the South Pacific

Sulawesi operations

Our subsidiary PT Inco operates an open cast mining area and related processing facility in Sorowako on the Island of Sulawesi, Indonesia. PT Inco mines nickel laterite saprolite ore and produces an intermediate product (nickel matte), which is shipped primarily to our nickel refinery in Japan. Pursuant to life-of-mine off-take agreements, PT Inco sells 80% of its production to Vale Inco and 20% of its production to Sumitomo Metal Mining Co., Ltd. (Sumitomo). PT Inco is a public company whose shares are traded on the Indonesia Stock Exchange. We hold 61% of its share capital, Sumitomo holds 20% and the remaining 19% is publicly held.

Energy costs are a significant component of our nickel production costs for the processing of lateritic ores at our PT Inco operations in Indonesia. A major part of the electric furnace power requirements of PT Inco is supplied at low cost by its two hydroelectric power plants on the Larona River, Larona and Balambano. PT Inco has thermal generating facilities in order to supplement its hydroelectric power supply with a source of energy that is not subject to hydrological factors. Since October 2008, all thermal generating facilities have been shut down in order to decrease operational costs. In 2008, the hydroelectric power plants provided 81% of the electric energy consumed at our Indonesian operations, and the oil generators provided the remainder.

Asian refinery operations

Our 67%-owned subsidiary Vale Inco Japan Limited operates a refinery in Matsuzaka, which produces intermediate and finished nickel products, primarily using nickel matte sourced from PT Inco. Vale Inco Japan is a private company. The minority interest is held by Sumitomo (13%), Daido Steel Co., Ltd. (9%), Mitsui & Co., Ltd. (7%) and

other Japanese companies (5%).

We also operate or have investments in nickel refining operations in Taiwan, China and South Korea, through our 49.9% stake in Taiwan Nickel Refining Corporation (TNRC), our 98% interest in Vale Inco New Nickel Materials (Dalian) Co. Ltd. (VINNM) and our 25% stake in Korea Nickel Corporation

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(KNC). TNRC, INNM and KNC produce finished nickel for the local stainless steel industry in Taiwan, China and South Korea, primarily using intermediate products containing about 75% nickel (in the form of nickel oxide) from Vale Inco Japan and our Sudbury operations. Dalian is expected to start receiving nickel oxide from Goro in late 2009.

Other operations

Our 65%-owned joint venture Jinco Nonferrous Metals Co., Ltd (Jinco) operates a nickel salts operation in China (Kunshan, province of Jiangsu). Jinco produces nickel sulphate and chloride, which are used in the nickel plating industry. The remaining 35% of Jinco is held by Jinchuan Group Limited.

Through our wholly-owned subsidiary The International Metals Reclamation Company, Inc., or INMETCO, in the United States (Ellwood City, Pennsylvania), we process stainless steel waste, end-of-life batteries and other waste products primarily containing nickel, chromium, iron and cadmium. We sell the resulting recovered metals as a remelt alloy ingot to the stainless steel industry.

Through our wholly-owned subsidiary Novamet Specialty Products Corporation, in the United States (Wyckoff, New Jersey), we process and sell nickel powders.

Through our 77%-owned subsidiary Inco Advanced Technology Materials (Shenyang) Co. Ltd. and our 76.7% subsidiary Inco Advanced Technology Materials (Dalian) Co. Ltd., both in China, we produce and sell nickel foam.

2.1.2 Production nickel

The following table sets forth our annual mine production by operating mine (or on an aggregate basis for PT Inco because it has mining areas rather than mines) and the average percentage grades of certain metals (nickel and copper). 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 mine production at PT Inco represents the product from PT Inco s dryer kilns delivered to PT Inco s smelting operations and does not include nickel losses due to smelting. The following table sets forth information about ore production at our nickel mining sites.

	2006			2007			2008		
	Production	% Copper	% Nickel	Production	% Copper	% Nickel	Production	% Copper	% Nickel
	(thousands of metric tons, except percentages)								
Ontario operating mines									
Copper Cliff North	1,341	1.19	0.96	1,078	0.92	0.84	1,165	1.01	1.01
Copper Cliff South(1)	879	1.94	1.63	883	1.71	1.46	771	1.67	1.48
Creighton	997	1.55	2.09	963	1.62	2.08	1,001	1.56	2.14
Stobie	2,808	0.68	0.75	2,850	0.68	0.72	2,892	0.65	0.72
Garson	721	1.19	1.60	692	1.58	1.59	840	1.72	1.69
Coleman	1,348	2.40	1.65	1,408	2.75	1.74	1,425	2.66	1.62
Gertrude	207	0.27	0.70	12	0.25	0.66	124	0.29	0.72

Total Ontario operations	8,301	1.32%	1.25%	7,887	1.39%	1.25%	8,219	1.36%	1.26%
Manitoba operating mines									
Thompson	1,214		2.08	1,380		1.83	1,320		1.77
Birchtree	1,069		1.62	1,164		1.52	971		1.51
Total Manitoba operations	2,283		1.86%	2,545		1.69%	2,291		1.66%
Voisey s Bay operating mines									
Ovoid	1,507	2.22	3.77	2,147	2.47	3.74	2,385	2.38	3.50
Total Voisey s Bay operations	1,507	2.22%	3.77%	2,147	2.47%	3.74%	2,385	2.38%	3.50%

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	2006			2007			2008		
	Production	% Copper	% Nickel	Production	% Copper	% Nickel	Production	% Copper	% Nickel
	(thousands of metric tons, except percentages)								
Sulawesi operating mining areas									
Sorowako	4,459		1.95	4,615		2.03	4,258		2.08
Pomalaa(2)	685		2.30	645		2.30	417		2.29
Total Sulawesi operations	5,144		2.00%	5,260		2.06%	4,675		2.10%

(1) This mine has been closed indefinitely since January 2009.

(2) This mine has been closed indefinitely since May 2008.

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

Mine	Type	Production for the year ended December 31, 2006	2007	2008	Nominal capacity(1)
		(thousand metric tons)			
Sudbury(2)	Underground	82.0	70.7	85.3	91.5
Thompson(2)	Underground	30.3	29.8	28.9	38.3
Voisey s Bay(3)	Open pit	35.5	58.9	77.5	77.5
Sorowako(4)	Open cast	70.0	75.8	68.3	78.9
External(5)		17.1	12.7	15.4	18.3
Total(6)		234.9	247.9	275.4	304.5

(1) These figures represent nominal capacity in 2008, which is equivalent to planned production for 2008 (except for Voisey s Bay, for which nominal capacity is equivalent to actual production for 2008).

(2) Figures for 2006 and 2007 were revised to exclude finished nickel we produced using feeds purchased from unrelated parties. Primary nickel production only (does not include secondary nickel from INMETCO).

(3) 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.

(4) We have a 61% interest in PT Inco, which owns the Sorowako mines, and these figures include the minority interests.

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

(6) Excludes finished nickel produced under toll-smelting and refining arrangements covering purchased intermediates with unrelated parties. Unrelated-party tolling of purchased intermediates was 16.1 thousand metric tons in 2006, 14.2 thousand metric tons in 2007 and 7.5 thousand metric tons in 2008.

2.1.3 Projects and exploration nickel

Goro. Located in New Caledonia, in the South Pacific, Goro has one of the largest deposits of lateritic nickel in the world. We expect it to reach nominal annual production capacity of 60,000 metric tons of nickel in the form of nickel oxide sinter and 4,600 metric tons of cobalt. Our estimated total investment in this project is US$4.083 billion. Operations are scheduled to begin in the first half of 2009 and to ramp up over a four-year period in order to mitigate operational risks.

Onça Puma. Onça Puma is a nickel mine built on deposits of nickel laterite (saprolite) in the Brazilian state of Pará. We expect it to reach nominal annual production capacity of 58,000 metric tons of nickel in ferro-nickel, its final product. The total estimated investment in this project is US$2.297 billion.

Totten. Totten is a nickel mine in Sudbury, Ontario. The estimated total cost of Totten is US$362 million, and completion is scheduled for the first half of 2011, subject to market conditions. The new mine will have annual production capacity of 8,200 metric tons of nickel, with copper and precious metals (platinum, gold and silver) as by-products.

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Voisey s Bay processing facility. Pursuant to an agreement with the government of the Province of Newfoundland and Labrador, we are required to construct a commercial nickel processing facility in Newfoundland and Labrador to produce approximately 50,000 metric tons of finished nickel per year together with up to 5,000 metric tons of copper and 2,500 metric tons of cobalt, utilizing the ore from the Ovoid mine at our Voisey s Bay mining site. The most recent budget approved by our Board of Directors for this project was US$2.177 billion. We are contractually obligated to complete the construction of the facility by the first quarter of 2013. The total investment for this project is subject to board approval.

Clarabelle Mill expansion. The expansion of Clarabelle Mill, a processing plant in Sudbury, consists of increasing ore beneficiation capacity, while improving recovery rates for nickel and copper. The estimated total cost is US$1.272 billion. Completion of the project, which is subject to board approval and to market conditions, is scheduled for the second half of 2011.

We are engaged in greenfield exploration for nickel, with several active programs and projects in Australia, Brazil, Canada, China, Yemen, Mongolia and the Philippines. We are engaged in brownfield exploration for nickel in Canada and Indonesia.

2.1.4 Customers, sales and marketing nickel

Our customers are broadly distributed on a global basis. In 2008, 56.2% of our total nickel sales were delivered to customers in Asia, 27.2% to North America, 11.6% to Europe and 5.0% to other locations. We have short-term fixed-volume contracts with customers for the majority of our expected annual nickel sales. These contracts, together with our sales of proprietary and multi-use nickel products, 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 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 in terms of the following characteristics, which determine the product price level and the suitability for various end-use applications:

- nickel content and purity level: (i) intermediates with various levels of nickel content, (ii) nickel pig iron has 1.5-6% nickel, (iii) ferro-nickel has 20-40% nickel, (iv) standard LME grade nickel has a minimum of 99.8% nickel, and (v) 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 2008, the principal end-use applications for nickel were:

- austenitic stainless steel (55-60% of global nickel consumption);
- non-ferrous alloys, alloy steels, and foundry applications (20-25% of global nickel consumption);
- nickel plating (10% of global nickel consumption); and

specialty applications, such as batteries, fuel cells, powder metallurgy and automotive parts (5-10% of global nickel consumption).

In 2008, 67% of our refined nickel sales were made into non-stainless steel applications, compared to the industry average for primary nickel producers of approximately 12%. As a result of our focus on such higher-

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value segments, our average realized nickel prices for refined nickel have consistently 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 finished nickel, based at our head office in Toronto, Canada. We also have sales offices in Saddle Brook, New Jersey, and San Antonio, Texas in the United States, in London, England, in Tokyo, Japan, in Hong Kong and Shanghai, China, in Kaohsiung, Taiwan, in Bangkok, Thailand and in Bridgetown, Barbados.

2.1.5 Competition nickel

The global nickel market is highly competitive. We believe that our key competitive strengths include our long-life mines, our low cash costs of production relative to other nickel producers, and sophisticated exploration and processing technologies. 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.

In 2008, our nickel deliveries represented approximately 21% of global consumption for primary nickel. In addition to us, the largest suppliers in the nickel industry (each with its own integrated facilities, including nickel mining, processing, refining and marketing operations) are Mining and Metallurgical Company Norilsk Nickel, BHP Billiton plc, Xstrata plc and Jinchuan Nonferrous Metals Corporation. Together with us, these companies accounted for about 61% of global finished primary nickel production in 2008.

While stainless steel production is a major driver of global nickel demand, stainless steel producers can use nickel products with a wide range of nickel content, including secondary nickel (scrap). The choice between primary and secondary nickel is largely based on their relative prices and availability. In recent years, secondary nickel has accounted for about 44-49% of total nickel used for stainless steels, and primary nickel has accounted for about 51-56%. In 2006, a new primary nickel product entered the market, known as nickel pig iron. This is a low-grade nickel product made in China from imported lateritic ores (primarily from the Philippines, Indonesia and New Caledonia) that is suitable primarily for use in stainless steel production. In 2008, nickel pig iron production totaled an estimated 75,000 metric tons, representing 5.4% 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.

Given the competitive advantages described above, we were able to increase our sales in 2008 despite a decline in worldwide demand of 1% from 2006 to 2007 and of 4% from 2007 to 2008. Our global deliveries (including intermediates and purchased nickel) increased, as a percentage of total deliveries in the global nickel market, from 20% in 2006 to 21% in 2008.

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2.2 Aluminum

We operate our aluminum businesses at the parent-company level and through subsidiaries and joint ventures, as set forth in the following table.

Company	Business	Our share of capital (%)		Partners
		Voting	Total	
Vale	Bauxite			
MRN	Bauxite	40.0	40.0	Alcan Participações Ltda., BHP Billiton Metais S.A., Companhia Brasileira de Alumínio, Alcoa Alumínio S.A., Alcoa World Alumina Brasil Participações Ltda. and Norsk Hydro Brasil Ltda
Alunorte	Alumina	59.0	57.0	Hydro Aluminium Brasil Investment BV, Companhia Brasileira de Alumínio, Nippon Amazon Aluminium Co., Ltd, Japan Alunorte Investment Co., Ltd, Mitsui & Co., Ltd. and Mitsubishi Corporation
Albras	Aluminum	51.0	51.0	Nippon Amazon Aluminium Co., Ltd
Valesul	Aluminum	100	100	

2.2.1 Bauxite

We conduct our bauxite operations through our joint venture Mineração Rio do Norte S.A. (MRN) and at the parent company level.

MRN. MRN, which is located in the northern region of the Brazilian state of Pará, is one of the largest bauxite operations in the world, operating four open-pit bauxite mines that produce high quality bauxite. In addition, MRN controls substantial additional high quality bauxite resources. MRN also operates ore beneficiation facilities at its mines, which are connected by rail to a loading terminal and port facilities on the Trombetas River, a tributary of the Amazon River, that can handle vessels of up to 60,000 deadweight tons (DWT). MRN owns and operates the rail and the port facilities serving its mines. The MRN mines are accessible by road from the port area and obtain electricity from their own thermal power plant.

Paragominas mine. Operations at our Paragominas mine, in the Brazilian state of Pará, began in the first quarter of 2007 to supply Alunorte s alumina refinery. The first expansion of Paragominas (Paragominas II) was concluded in the second quarter of 2008. The mine has a nominal annual production capacity of 9.9 million metric tons of wet 12% moisture bauxite, and the bauxite quality is similar to that of MRN. The Paragominas site has a beneficiation plant with milling and a 244-kilometer slurry pipeline. We obtain electricity from Eletronorte.

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The following table sets forth information about ore production at our mining sites.

Mine(1)	Type	Production for the year ended December 31, 2006	2007	2008	Nominal capacity	Recovery rate (%)
		(million metric tons)				
MRN						
Almeidas	Open pit	8.4	4.8	3.6		
Aviso	Open pit	12.0	14.4	14.5		
Saracá V	Open pit	1.6	2.1	2.3		
Saracá W	Open pit	3.2	3.5	3.9		
Total MRN		25.2	24.8	24.2	25.1	72-75
Paragominas						
Miltonia 3	Open pit	0.3	4.4	7.3		70
Total Paragominas		0.3	4.4	7.3		

(1) These figures represent run-of-mine production.

The following table sets forth information about our final bauxite production.

Mine	Type	Production for the year ended December 31, 2006	2007	2008	Nominal capacity	Recovery rate (%)
		(million metric tons)				
MRN	Open pit	17.8	18.1	18.1	18.0	72
Paragominas	Open pit	0.0	1.9	4.4	9.9	70

We are developing the Paragominas III bauxite project. Paragominas III, which will increase production capacity by 4.95 million metric tons per year, has an estimated cost of US$487 million. We intend to supply the first stage of a new alumina refinery, Companhia de Alumina do Pará, with production from Paragominas III. The project is scheduled for completion in the second half of 2012.

We are engaged in greenfield exploration for bauxite in Brazil and Guinea.

2.2.2 Alumina

We conduct our alumina operations in Brazil, through our subsidiary Alunorte Alumina do Norte do Brasil S.A. (Alunorte), which produces alumina by refining bauxite supplied by MRN and the Paragominas mine. The Alunorte plant is the largest alumina refinery in the world, with a nominal production capacity of 6.3 million metric tons per year, after the last expansion concluded in the second quarter of 2008.

Alunorte sells alumina to our subsidiary Albras Alumínio Brasileiro S.A. (Albras), its principal customer, as well as to our subsidiary Valesul and unaffiliated customers. Albras aluminum production facilities are located nearby, in the city of Barcarena in the state of Pará, and Alunorte and Albras share infrastructure and other resources.

The following table sets forth information on our alumina production.

Company	Production for the year ended December 31, 2006	2007	2008	Nominal capacity
	(million metric tons)			
Alunorte	3.9	4.3	5.0	6.3

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We are developing the Companhia de Alumina do Pará (CAP) alumina project. The CAP refinery is 61% owned by us, 20% by Hydro Aluminum S.A. and 19% by Dubai Aluminium Company Limited (DUBAL). The initial production capacity of this refinery, located in Barcarena, close to Alunorte s alumina refinery, will be 1.86 million metric tons per year of alumina through two lines each of 930,000 tons per year. Future capacity expansions at this refinery has the potential to reach up to 7.4 million metric tons per year. The estimated total cost for the first phase of CAP is US$2.200 billion. The start-up of the first phase is scheduled for the end of 2012, subject to approval by our Board of Directors and to market conditions.

2.2.3 Aluminum

We conduct our aluminum smelting operations in Brazil through our subsidiaries Albras and Valesul Alumínio S.A. (Valesul).

Albras. The Albras smelter, located in Barcarena, in the state of Pará, is one of the largest aluminum plants in the Americas, with a nominal capacity of 455,000 metric tons per year. Albras produces aluminum using alumina supplied by Alunorte. Alunorte supplied 100% of Albras alumina requirements in 2008. Albras produces pure metal ingots.

Aluminum is produced from alumina by means of a continuous electro-chemical process, which requires substantial amounts of electricity. Albras purchases electric power from Eletronorte. Eletronorte generates electricity at the Tucuruí hydroelectric power plant located on the Tocantins River. This plant is the sole source of electrical power in the region in the quantities required for Albras operations. Albras consumes approximately one-fifth of the non-peak period output of the Tucuruí plant.

Valesul. Valesul operates a smelter located in the state of Rio de Janeiro with a nominal capacity of 95,000 metric tons per year. Valesul produces primary aluminum and aluminum alloys in the form of ingots and billets. Valesul produces aluminum using alumina provided by Alunorte, which supplied 53.6% of Valesul s alumina requirements in 2008 and the remaining 46.4% was supplied by external sources. In 2008, Valesul obtained 94% of its electrical energy requirements from: (a) four wholly-owned small hydroelectric power plants located in the state of Minas Gerais, (b) Aimorés, in the state of Minas Gerais, in which Valesul has a 51% stake as of March 2009, and (c) the Machadinho hydroelectric power plant, in the state of Santa Catarina, in which Valesul has a 8.29% stake. Its remaining electrical energy requirements are obtained from unrelated parties at market prices. The 51% stake in Aimorés is being transferred back to Vale, pending approval from ANEEL, the Brazilian electricity regulatory agency.

Valesul is engaged in litigation regarding the prices charged by an electricity utility in the state of Rio de Janeiro for the transmission of electricity. See *Item 8. Financial information Legal proceedings.* The following table sets forth information on our aluminum and aluminum alloys production.

Company	Production for the year ended December 31, 2006	2007	2008	Nominal capacity
	(thousand metric tons)			
Albras	456	455	455	455
Valesul(1)	95	95	87	95
Total	551	551	543	540

(1) In 2006, 2007 and 2008, Valesul also recycled 13,000, 13,000 and 15,000 metric tons, respectively, of aluminum scrap from unrelated parties.

2.2.4 Customers and sales aluminum

Bauxite. MRN produces bauxite for sale on a take-or-pay basis to the joint venture partners. Excess production may be sold to customers. The joint venture partners pay a price that is determined by a formula linked to the price of aluminum for three-month futures contracts on the London Metal Exchange and to the

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price of alumina FOB Australia. In 2008, our subsidiary Alunorte purchased 64.7% of its bauxite requirements from MRN. Paragominas sells all of its production to our subsidiary Alunorte, which corresponds to 35.3% of its bauxite requirements in 2008.

Alumina. Each Alunorte partner must purchase on a take-or-pay basis all alumina produced by Alunorte in proportion to its respective interest. The partners pay the same price, which is determined by a formula based on the price of aluminum for three-month futures contracts on the London Metal Exchange. We usually use a portion of our share of Alunorte s alumina production to supply Albras and Valesul, and we sell the remainder to customers in Argentina, Canada, Egypt, Norway, the United States and other countries.

Aluminum. The Albras partners must purchase on a take-or-pay basis all aluminum produced by Albras in proportion to their ownership interests. We generally market our aluminum in the global markets, mainly Asia and Europe, to clients in the aluminum industry. Valesul s aluminum products are sold primarily in the Brazilian market.

2.2.5 Competition alumina and aluminum

Alumina. The alumina market is competitive, but small compared to the primary aluminum market, because many of the major aluminum-producing companies have integrated bauxite, alumina and aluminum operations. Competition in the alumina market is based primarily on quality, reliability of supply and price, which is directly related to lower costs and logistics. We believe that Alunorte is competitive in the alumina market because of the high quality of its alumina, its advantages in scale and technology, lower conversion costs relative to other refineries in the Atlantic, its efficient port facilities, and the ongoing commitment of its shareholders to purchase a substantial portion of its annual production to place it both in Brazilian and other markets.

Aluminum. The global aluminum market is highly competitive. The world s largest producers are subsidiaries and affiliates of Alcoa, Rusal, Rio Tinto, Chalco, Norsk Hydro and BHP Billiton. As primary aluminum is a commodity, competition in the aluminum market is based primarily on the economics of transportation and the costs of production. We believe that Albras is competitive in the global aluminum market because of its relatively efficient and accessible port facilities and its generally prevailing lower cost of production.

2.3 Copper

2.3.1 Operations copper

We conduct our copper operations at the parent-company level in Brazil and through our subsidiary Vale Inco in Canada.

Company	Location	Our share of capital	
		Voting (%)	Total
Vale	Brazil	–	–
Vale Inco	Canada	100	100

Brazilian operations

Our Sossego copper mine in Carajás, in the state of Pará, has two main copper ore bodies, Sossego and Sequeirinho. Its annual operating capacity is 14 million metric tons of run-of-mine, averaging 120,000 metric tons of copper contained in concentrate (30% grade) and 104,000 ounces of gold in concentrate. The copper ore is mined by open-pit method, and the run-of-mine is processed by means of standard primary crushing and conveying, SAG milling (a semi-autogenous mill that uses a large rotating drum filled with ore, water and steel grinding balls to transform the ore into a fine slurry), ball milling, copper concentrate flotation, tailings disposal, concentrate thickening, filtration and load out. We truck the concentrate to a storage terminal in

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Parauapebas and then transport it via the EFC railroad to the Ponta da Madeira maritime terminal in São Luís, in the state of Maranhão.

We constructed an 85-kilometer road to link Sossego to the Carajás air and rail facilities and a power line that allows us to purchase electrical power at market prices. We have a long-term energy supply contract with Eletronorte.

In December 2008, we concluded the construction of the Usina Hidrometalúrgica de Carajás plant (UHC), located at the Sossego mining site, to test the application of hydro-metallurgical technology for the industrial-scale processing of more complex copper ores to produce copper cathode. This plant uses copper concentrate from our Sossego mine. It has an annual production capacity of 10,000 metric tons of copper cathode. If proven to be efficient after the estimated 21-month testing period, we believe this technology could be used to process the sulfide ore produced at the mines in the Carajás mineral province at a relatively low cost.

Canadian operations

In Canada, we recover copper in conjunction with our nickel operations, principally at Sudbury and Voisey s Bay. At Sudbury, we produce two intermediate copper products, copper concentrate and copper anodes, and we also produce electrowon copper cathode as a by-product of our nickel refining operations. At Voisey s Bay, we produce copper concentrates.

2.3.2 Production copper

Mine	Type	Production for the year ended December 31, 2006	2007	2008	Nominal capacity(1)
		(thousand metric tons)			
Brazil:					
Sossego	Open pit	117	118	126	120
Canada:					
Sudbury	Underground	109	113	115	115
Voisey s Bay	Open pit	28	42	55	55
Thompson	Underground	1	1	1	2
External(2)	–	11	9	14	17
Total		267	284	312	309

(1) These figures represent nominal capacity in 2008, which is equivalent to planned production for 2008 (except for Sudbury and Voisey s Bay, for which nominal capacity is equivalent to actual production for 2008).

(2) We process copper at our facilities using feed purchased from unrelated parties.

2.3.3 Projects and exploration copper

Tres Valles (formerly Papomono). We are investing in the Tres Valles project in the Coquimbo region of Chile, which has an estimated nominal production capacity of 18,000 metric tons per year of copper

cathode. The estimated total cost of the project is US$102 million. The completion of this project is scheduled for the first half of 2010.

Salobo. In the first phase of development of the Salobo copper deposit in Carajás, annual nominal capacity will be 127,000 metric tons of copper in concentrates, with 130,000 troy ounces of gold in concentrate as a by-product. The concentrate will be processed using conventional smelting technology. The total estimated cost for this project is US$1.152 billion. Subject to market conditions, it is scheduled to be completed by the first half of 2011.

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Salobo expansion. The project will expand the Salobo mine s annual production capacity from 127,000 to 254,000 metric tons of copper in concentrates. The scope of the project contemplates the expansion of the industrial and support facilities, raising the height of the tailing dam and increasing mine movement. The total estimated cost for this project is US$855 million. Subject to market conditions, it is scheduled to be completed by the second half of 2013.

Totten. The Totten nickel mine in Sudbury, Ontario, is expected to produce 11,200 metric tons of copper per year as a co-product of nickel production. Subject to market conditions, completion is scheduled for the first half of 2011. The estimated total cost of the project is US$362 million.

We are engaged in copper mineral exploration primarily in Argentina, Australia, Brazil, Canada, Chile, Democratic Republic of Congo, Kazakhstan, Mongolia, Peru and the Philippines.

2.3.4 Customers and sales copper

Copper concentrates from Sossego are sold under medium- and long-term contracts to copper smelters in South America, Europe and Asia. We have a long-term off-take agreement to sell the majority of copper concentrate from Salobo to smelters. Vale Inco has long-term copper supply agreements with Xstrata Copper Canada for the sale of copper anodes and copper concentrates produced in Sudbury. Copper in concentrates from Voisey s Bay are sold under medium-term contracts to customers in Europe. Electrowon copper from Sudbury is sold in North America under short-term sales agreements.

2.3.5 Competition copper

The global copper cathode market is highly competitive. Producers are integrated mining companies and custom smelters, covering all regions of the world, while consumers are principally wire, rod and copper-alloy producers. Competition occurs mainly on a regional level and is based primarily on production costs, quality, reliability of supply and logistics costs. The world s largest copper cathode producers are Codelco, Freeport, BHP Billiton and Xstrata, operating at the parent-company level or through subsidiaries. Our participation in the global copper cathode market is marginal.

Copper concentrate and copper anode are intermediary products in the copper production chain. Both the concentrate and anode markets are competitive, having numerous producers but fewer participants and smaller volumes than in the copper cathode market due to high levels of integration by the major copper producers.

In the copper concentrate market, the main producers are mining companies located in South America, Indonesia and Australia, while consumers are custom smelters located in Europe and Asia. Competition in the copper concentrate market occurs mainly on a global level and is based on production costs, quality, logistics costs and reliability of supply. The largest competitors in the copper concentrate market are BHP Billiton, Rio Tinto, Freeport and Xstrata, operating at the parent-company level or through subsidiaries. Our market share in 2008 was about 3% of the total custom copper concentrate market.

The copper anode/blister market has very limited trade within the copper industry; generally, anodes are produced to supply each company s integrated refinery. The trade in anodes/blister is limited to those facilities that have more smelting capacity than refining capacity or to those situations where logistics cost savings provide an incentive to source anodes from outside smelters. The largest competitors in the copper anode market are Codelco, Anglo American and Xstrata, operating at the parent-company level or through subsidiaries.

2.4 PGMs and other precious metals

As by-products of our Sudbury nickel operations in Canada, we recover significant quantities of platinum-group metals, as well as small quantities of gold and silver. 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 materials. In 2008, PGM concentrates from our Sudbury operations supplied about 33% of our PGM

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production. The remaining portion was supplied by feed from unrelated parties (including purchased and toll-refined materials). Vale Inco s global marketing department sells our own PGMs and other precious metals, as well as products from unrelated parties and toll-refined products, on a sales agency basis. The following table sets forth information on our precious metals production.

Mine(1)	Type	2006	2007	2008	Nominal capacity(2)
			(thousand troy ounces)		
Sudbury:					
Platinum	Underground	153	140	166	180
Palladium	Underground	209	191	231	231
Gold	Underground	78	75	85	85

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

(2) These figures represent nominal capacity in 2008, which is equivalent to planned production for 2008, (except for palladium and gold, for which nominal capacity is equivalent to actual production for 2008).

2.5 Other non-ferrous minerals

2.5.1 Cobalt

We recover significant quantities of cobalt as a by-product of our Canadian nickel operations. In 2008, we produced 1,472 metric tons of refined cobalt metal at our Port Colborne refinery and 728 metric tons of cobalt hydrate at our Thompson nickel operations in Canada. Our remaining cobalt production consisted of 773 metric tons of cobalt contained in intermediate products (such as nickel concentrates). We expect to increase our production of cobalt as we increase nickel production in New Caledonia at the Goro mine, because the nickel laterite ore at this location contains significant co-deposits of cobalt.

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%) and consequently commands a price premium in the market. Cobalt metal is used in the production of various alloys, particularly for aerospace applications, as well as the manufacture of cobalt-based chemicals. Our cobalt hydrate is used by chemical producers to make cobalt-based chemicals.

The following table sets forth information on our cobalt production.

Mine	Type	Production for the year ended December 31, 2006	2007	2008	Nominal capacity(1)
			(metric tons)		
Sudbury	Underground	665	727	804	1,003
Thompson	Underground	411	179	168	242
Voisey s Bay	Open pit	680	1,239	1,695	1,695
External(2)	–	221	379	161	169

Total	1,977	2,524	2,828	3,109

(1) These figures represent nominal capacity in 2008, which is equivalent to planned production for 2008 (except for Voisey s Bay, for which nominal capacity is equivalent to actual production for 2008).

(2) These figures do not include unrelated-party tolling of feeds purchased from unrelated parties.

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2.5.2 Kaolin

We conduct our kaolin business in Brazil, through the subsidiaries set forth in the following table:

Company	Location	Our share of capital (%)		Partners
		Voting	Total	
CADAM	Vitória do Jari, Amapá	100	61.5	Banco do Brasil and BNDES
PPSA	Barcarena, Pará	85.6	86.2	Mitsubishi Corporation

CADAM S.A. (CADAM) and Pará Pigmentos S.A. (PPSA) produce kaolin for paper coating. They also conduct research into other uses for kaolin products in order to develop a more diversified portfolio.

CADAM is located on the border of the states of Pará and Amapá, in the Amazon area in northern Brazil. CADAM s reserves are principally concentrated in the open-pit Morro do Felipe mine, in Vitória do Jari, in the state of Amapá. The beneficiation plant and private port facilities are situated on the west bank of the Jari River, in Munguba, in the state of Pará. CADAM produces the following products: Amazon SB, Amazon Premium and Amazon Plus. They are sold mainly in the European, Asian and Latin American markets.

PPSA operates an open-pit mine, Rio Capim, and a beneficiation plant. These operations are linked to the land and port facilities in Barcarena, via a 180-kilometer pipeline. The beneficiated kaolin is pumped through a slurry pipeline. PPSA produces the following products: Century, Century S, Paraprint, Paraplate and Paralux. They are sold mainly in the European, Asian and North American markets.

CADAM obtains electricity from its own thermal power plant, whose nominal capacity is 22.5 MW. PPSA has an energy supply contract with Rede Celpa.

The following table sets forth information on our kaolin production.

Mine	Type	Production for the year ended December 31, (thousand metric tons)			Nominal capacity	Recovery rate(1) (%)
		2006	2007	2008		
CADAM						
Morro do Felipe(2)	Open pit	755	714	602	645	48.8
PPSA						
Rio Capim	Open pit	597	639	528	672	28.8
Total		1,352	1,354	1,129	1,317	

(1) Total recovery rate.

(2) The reduction in nominal capacity was due to deactivation of the lump production line.

2.5.3 Potash

We conduct potash operations in Brazil at the parent-company level. We lease the only potash mine in Brazil (in Rosario do Catete, in the state of Sergipe) from Petrobras Petróleo Brasileiro S.A., the Brazilian state-owned oil company. The lease, signed in 1991, became effective in 1992 for a period of 25 years. All sales from the Taquari-Vassouras mine are to the Brazilian market. The following table sets forth information on our potash production.

Mine	Type	Production for the year ended December 31, 2006	2007	2008	Nominal capacity	Recovery rate (%)
		(thousand metric tons)				
Taquari-Vassouras	Underground	731	671	607	850	87.8

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2.5.4 Projects other non-ferrous minerals

We are developing the Bayovar project, in Bayovar, Peru, which consists of an open-pit phosphate mine with nominal production capacity of 3.9 million metric tons per year and a maritime terminal. Completion is expected in the second half of 2010. The estimated total cost of this project is US$479 million.

We are engaged in potash mineral exploration in Argentina, Brazil and Canada and in phosphate mineral exploration in Brazil, Mozambique and Peru.

3. Coal

3.1 Operations coal

We produce thermal and metallurgical coal through our subsidiary Vale Australia, which operates coal assets in Australia through wholly-owned companies and unincorporated joint ventures, and we have minority interest in two Chinese companies, Henan Longyu Energy Resources Co., Ltd. (Longyu) and Shandong Yankuang International Coking Company Ltd. (Yankuang), as set forth in the following table.

Company	Business	Location	Our share of capital (%)	Partners
Vale Australia				
		Australia:		
Integra Coal	Thermal and metallurgical coal	Hunter Valley, New South Wales	61.2	NSC, JFE, Posco, Toyota
Carborough Downs	Metallurgical coal	Bowen Basin, Queensland	80.0	NSC, JFE, Posco, Tata
Isaac Plains	Thermal and metallurgical coal	Bowen Basin, Queensland	50.0	Aquila
Broadlea	Thermal and metallurgical coal	Bowen Basin, Queensland	100	
		China:		
Longyu	Coal and other related products	Henan Province	25.0	Yongcheng Coal & Electricity (Group) Co. Ltd., Shanghai Baosteel International Economic & Trading Co., Ltd. and other minority shareholders
Yankuang	Metallurgical coke and methanol	Shandong Province	25.0	Yankuang Group Co. Limited, Itochu Corporation

Integra Coal Operations (*underground and open-cut*). The Integra Coal Operations are located 10 kilometers north-west of Singleton in the Hunter Valley of New South Wales. The operations comprise an underground coal mine that produces coal by longwall methods, and an open-cut pit. Coal from the mine is processed at a coal handling and processing plant (CHPP) with a capacity of 1,200 metric tons per hour, loaded onto trains at a purpose-built rail loadout facility for transport to the Port of Newcastle.

Carborough Downs. Carborough Downs is located in the Central Bowen Basin in central Queensland, approximately 15 kilometers east of the township of Moranbah and approximately 180 kilometers southwest of the coastal city of Mackay. Carborough Downs mining leases overlie the Rangal Coal Measures of the Bowen Basin with the economic seams of Leichardt and Vermont. Both seams have coking properties and can be beneficiated to produce coking and PCI products. Carborough Downs coal is processed at the Carborough Downs CHPP, which is capable of processing 500 metric tons per hour, and which operates seven days per week. The product is loaded onto trains at a rail loadout facility and transported 160 kilometers to the Dalrymple Bay Coal Terminal.

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Isaac Plains. The Isaac Plains open-cut mine is located close to Carborough Downs in central Queensland. The mine is managed by Isaac Plains Coal Management on behalf of the joint venture parties. The coal is classified as a medium volatile bituminous coal with low ash and sulfur contents. Isaac Plain s product split is 75% metallurgical coal and 25% thermal coal. Coal is processed at the Isaac Plains CHPP and railed 172 kilometers to the Dalrymple Bay Coal Terminal.

Broadlea. Broadlea is an open-cut operation located just north of Carborough Downs s underground mine, consisting of a collection of small economic coal deposits. Broadlea is mined using the truck-and-shovel method, and product coal is toll-washed at the Carborough Downs CHPP and railed 172 kilometers to the Dalrymple Bay Coal Terminal.

3.2 Production coal

The following table sets forth information on our coal production.

Joint venture	**Mine type**	**Production for the year ended December 31,(1)**	
		2007	**2008**
		(thousand metric tons)	
Thermal coal:			
Integra Coal(2)	Opencut	255	557
Isaac Plains(3)	Opencut	171	147
Broadlea	Opencut	14	582
Total thermal coal		440	1,286
Metallurgical coal:			
Integra Coal(2)	Underground and opencut	1,214	1,747
Isaac Plains(3)	Opencut	249	382
Carborough Downs(4)	Underground	269	429
Broadlea	Opencut	32	249
Total metallurgical coal		1,764	2,808

(1) We acquired AMCI HA, the previous owner of these mines, in April 2007. 2007 figures include production from May to December 2007.

(2) We own 61.2% of Integra Coal and these figures relate to our equity.

(3) We own 50% of Isaac Plains and these figures relate to our equity.

(4) We own 80% of Carborough Downs and these figures relate to our equity.

Joint venture	**Mine type**	**Nominal capacity (million metric tons)**

Integra Coal(1)	Underground and opencut	2.75
Isaac Plains(2)	Opencut	1.4
Carborough Downs(3)	Underground	3.84
Broadlea	Opencut	0.8
Total		8.79

(1) We own 61.2% of Integra Coal and these figures relate to our equity.

(2) We own 50% of Isaac Plains and these figures relate to our equity.

(3) We own 80% of Carborough Downs and these figures relate to our equity.

Longyu has annual production capacity of 5.85 million metric tons of coal and other related products, and Yankuang, a metallurgical coke plant, has annual production capacity of 2.0 million metric tons of coke and 200,000 metric tons of methanol.

3.3 Projects and exploration coal

Moatize. We have obtained all of the required licenses from the Mozambique government for the construction of the Moatize mine, which will have nominal production capacity of 11 million metric tons per year, of which 8.5 million metric tons per year will be metallurgical coal and 2.5 million

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metric tons per year will be thermal coal. In 2008, we signed a memorandum of understanding with the government of Mozambique establishing a railroad tariff. The port construction is subject to a bidding process. The estimated total cost of this project is US$1.322 billion, and start-up is expected in the second half of 2010.

Carborough Downs. This project will increase the nominal capacity of the Carborough Downs mine to 4.8 million metric tons per year. The longwall operations are scheduled to start in the second half of 2009. Meanwhile, the mine is producing up to 1.0 million metric tons per year via continuous miners in the development of gate roads and inventory of longwall panels. The project requires an estimated total investment of US$330 million.

We are currently seeking opportunities for greenfield mineral exploration for coal in Australia, Brazil, Colombia, Mongolia and Mozambique.

3.4 Customers and sales coal

Our coal sales are primarily focused in East Asia. In 2008, 43% of our coal sales were made to Japanese steel mills and power utilities. We also sell coal to customers in South Korea, India, Taiwan, China, Pakistan and Brazil. In 2008, our Chinese coal joint ventures directed their sales mainly to the Chinese domestic market.

Our Integra Operations in New South Wales are similar to many Hunter Valley operations in that the vast majority of production is consumed in Japan, and the remaining amounts are delivered to Korea and Taiwan. Our Queensland operations commenced production in late 2006. Aided by a strong market for metallurgical coal, we were able to market various types of coal from our Carborough Downs, Broadlea and Isaac Plains mines in a number of target markets, predominantly those mentioned above, as well as a trial shipment to Germany.

3.5 Competition coal

The global coal industry, which is primarily comprised of the markets for hard coal (metallurgical coal and thermal coal) and brown coal/lignite, is highly competitive. Growth in steel demand, especially in Asia, may underpin strong demand for metallurgical coal. Major port (and often rail) constraints in some of the countries in which major suppliers are located could lead to limited availability of incremental metallurgical coal production.

The global seaborne thermal coal market has significantly expanded in recent years. Growth in thermal coal demand is closely related to growth in electricity consumption, which will continue to be driven by global economic growth, particularly from emerging markets economies. Large existing fleets of coal-fired power plants with long life cycles take decades to replace or upgrade, keeping the share of thermal coal in the electricity matrix very high in countries with high consumption. The cost of fuel is typically the largest variable cost involved in electricity generation and coal is currently the most competitively priced fossil fuel for this purpose.

Competition in the coal industry is based primarily on the economics of production costs, coal quality and transportation costs. We believe that our operations and project pipeline are competitive, and our key competitive strengths include the strategic geographic location of our current and future supply bases and our production cash costs relative to several other coal producers.

Major participants in the coal seaborne market are subsidiares and affiliates of Xstrata plc, BHP Billiton plc, PT Bumi Resources Tbk., Anglo Coal, Drummond Company, Inc., Rio Tinto Ltd., Teck Cominco, Peabody and the Shenhua Group.

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4. Infrastructure

4.1 Logistics

We have developed our logistics business based on the transportation needs of our mining operations, mainly iron ore, and it also provides transportation services for customers products and for passengers. We conduct logistics businesses at the parent-company level, through subsidiaries and through joint ventures, as set forth in the following table.

Company	Business	Location	Our share of capital (%)		Partners
			Voting	Total	
Vale	Railroad (EFVM, EFC, FNS), port and maritime terminal operations	Brazil			
FCA	Railroad operations	Brazil	100	99.9	Former employees of Rede Ferroviária Federal S.A.
MRS	Railroad operations	Brazil	37.9	41.5	CSN, Usiminas and Gerdau
CPBS	Port and maritime terminal operations	Brazil	100	100	
Log-In	Port and maritime terminal operations and shipping activities	Brazil	31.3	31.3	Mitsui & Co. and several institutional investors
PT Inco	Port and maritime terminal operations	Indonesia	61.0	61.0	Sumitomo and several institutional investors

4.1.1 Railroads

Vitória a Minas railroad (EFVM). The EFVM railroad links our Southeastern System mines in the Iron Quadrangle region in the Brazilian state of Minas Gerais to the Tubarão Port, in Vitória, in the Brazilian 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. Industrial manufacturers 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 2008, the EFVM railroad carried a total of 75.8 billion ntk of iron ore and other cargo, of which 17.3 billion ntk, or 23%, consisted of cargo transported for customers, including iron ore for Brazilian customers. The EFVM railroad also carried approximately 1 million passengers in 2008. In 2008, we had a fleet of 326 locomotives and 19,743 wagons at EFVM.

Carajás railroad (EFC). We operate the EFC railroad under a 30-year renewable concession, which expires in 2027. This railroad, located in the Northern System, starts at our Carajás iron ore mines in the Brazilian state of Pará, and extends 892 kilometers to our Ponta da Madeira maritime terminal complex facilities located near the São Luís Port in the Brazilian state of Maranhão. The EFC railroad consists of one line of track, with crossing yards and turnouts to permit the passage of trains in opposite directions. The EFC railroad has a daily capacity of 301,000 metric tons of iron ore. In 2008, the EFC railroad carried a total of 88.7 billion ntk of iron ore and other cargo. In 2008, the EFC railroad transported a total of 6.4 billion ntk of cargo for customers, including iron ore for Brazilian customers. The EFC railroad also carried approximately 330,000 passengers in 2008. The main cargo of the EFC railroad consists of

iron ore, principally carried for us. In 2008, we had a fleet of 211 locomotives and 12,084 wagons at EFC. In May 2008, we began operations of the largest capacity train in Latin America. This train has 330 cars, measures 3.4 kilometers and weighs 42,300 gross metric tons when loaded.

Ferrovia Centro-Atlântica (FCA). Our subsidiary FCA operates the 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 approximately 8,023 kilometers of track 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

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provides access to the Santos Port in the state of São Paulo. In 2008, the FCA railroad transported a total of 11.3 billion ntk of cargo for customers. In 2008, FCA had a fleet of 495 locomotives and 11,881 wagons.

Ferrovia Norte-Sul railroad (FNS). In October 2007, we won the auction for the subconcession for commercial operation for 30 years of a 720-kilometer segment 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. A state-owned company is required to complete a new 268-kilometer segment by December 2009. In 2008, the FNS railroad transported a total of 0.9 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 2008, FNS had a fleet of six locomotives and 370 wagons.

The principal items of cargo of the EFVM, EFC, FCA and FNS railroads are:

- iron ore and iron ore pellets, carried for us and customers;
- steel, coal, pig iron, limestone and other raw materials carried for customers with steel mills located along the railroad;
- agricultural products, such as soybeans, 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 a 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 2008, the MRS railroad carried a total of 55.5 billion ntk of cargo, including 32.4 billion nkt of iron ore and other cargo from Vale.

4.1.2 Ports and maritime terminals

Brazil

We operate a port and six maritime terminals principally as a means to complete the delivery of our iron ore and iron ore pellets to bulk carrier vessels serving the seaborne market. See *Item 4. Information on the company Lines of business Ferrous minerals Operations Iron ore pellets*. We also use our port and terminals to handle customers cargo. In 2008, 10.8% of the cargo handled by our port and terminals represented cargo handled for customers.

Tubarão Port. The Tubarão Port, which covers an area of approximately 18 square kilometers, is located near the Vitória Port in the Brazilian state of Espírito Santo and contains four maritime terminals: (i) the iron ore maritime terminal, (ii) Praia Mole Terminal, (iii) Terminal de Produtos Diversos, and (iv) Terminal de Granéis Líquidos.

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 365,000 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 14,000 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 2008, 93.9 million metric tons of iron ore and iron ore pellets were shipped through the terminal for us. The iron ore maritime terminal has a stockyard capacity of 2.8 million metric tons.

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Praia Mole terminal is principally a coal terminal and handled 13.6 million metric tons in 2008. See *Item 8. Financial information Legal proceedings Praia Mole suit.*

Terminal de Produtos Diversos handled 5.3 million metric tons of grains and fertilizers in 2008.

Terminal de Granéis Líquidos handled 1.1 million metric tons of bulk liquid in 2008.

Ponta da Madeira maritime terminal. The Ponta da Madeira maritime terminal is located near the Itaqui Port in the Brazilian state of Maranhão. The terminal facilities can accommodate three vessels. Pier I can accommodate vessels displacing up to 420,000 DWT. Pier II can accommodate vessels of up to 155,000 DWT. Pier I has a maximum loading rate of 16,000 tons per hour. Pier II has a maximum loading rate of 8,000 tons per hour. Pier III, which has two berths and three shiploaders, can accommodate vessels of up to 220,000 DWT and has a maximum loading rate of 8,000 metric tons per hour in each shiploader. Cargo shipped through our Ponta da Madeira maritime terminal consists principally of our own iron ore production. Other cargo includes manganese ore, copper concentrate and pig iron produced by us and pig iron and soybeans for unrelated parties. In 2008, 85.7 million metric tons were handled through the terminal for us and 6.0 million metric tons for customers. The Ponta da Madeira maritime terminal has a stockyard capacity of 5.4 million metric tons.

Itaguaí maritime terminal Cia. Portuária Baía de Sepetiba (CPBS). CPBS is a wholly-owned subsidiary that operates the Itaguaí terminal, in the Sepetiba Port, in the Brazilian state of Rio de Janeiro. Itaguaí s maritime terminal has a pier that allows the loading of ships up to 18.1 meters and up to 230,000 DWT. In 2008, the terminal uploaded approximately 22.8 million metric tons of iron ore. From December 2007 to February 2008, Itaguaí operated with limited capacity as a result of an accident with a ship in the terminal.

Guaíba Island maritime terminal. We operate a maritime terminal on Guaíba Island in the Sepetiba Bay, in the Brazilian state of Rio de Janeiro. The iron ore terminal has a pier that allows the loading of ships of up to 300,000 DWT. In 2008, the terminal uploaded approximately 40.6 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 entered into an agreement in December 2002, which allows Vale to operate this terminal for a period of 10 years. In 2008, 1.1 metric tons of fuel and agricultural and steel products were shipped through TMIB.

Indonesia

PT Inco 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 a pier that can accommodate vessels displacing up to 6,000 DWT.

The Harapan Tanjung Mangkasa Village is located in Harapan Tanjung Mangkasa Village, South Sulawesi, and has a pier that can accommodate vessels displacing up to 39,000 DWT.

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4.1.3 Shipping

We operate in two distinct shipping areas: seaborne dry bulk shipping and tug boat services. The following table sets forth information on the volume of cargo that our seaborne dry bulk shipping service carried for the periods indicated.

	Year ended December 31,		
	2006	2007	2008
	(thousand metric tons)		
Iron ore:			
Vale	160	1,324	1,884
Customers	148		
Coal	0	147	
Other	2,243		
Total	2,551	1,471	1,884

We operate three capesize vessels, which have been fully dedicated to perform shuttle services from Brazil to China since May 2007. We have entered into long-term freight contracts, are building 12 large ore carriers, each with a capacity of 400,000 DWT, and have bought four used capesize vessels to develop a dedicated shuttle service from Brazil to China using these vessels. We expect this service to enhance our ability to offer our products in the Chinese market at competitive prices and to increase our market share in China and the global seaborne market.

We have also entered into a long-term freight contracts to transport pellet feed from Brazil to Oman, where we are building a pelletizing plant with nominal capacity of 9 million metric tons of direct reduction iron ore pellets per year and a distribution center with capacity to handle 40 million tons of iron ore or iron ore pellets.

We conduct our intermodal shipping business through Log-In. Log-In offers port handling and container transportation services, by sea or rail, as well as container storage. It has a fleet of seven ships for coastal shipping, a container terminal (*Terminal Vila Velha*, or TVV) and two multimodal terminals. In 2008, Log-In s coastal shipping service transported 119,918 twenty-foot equivalent units (teus), TVV handled 283,660 teus and its express train service moved 45,202 teus.

We also operate a fleet of 24 tug boats (13 owned and 11 chartered) in maritime terminals in Brazil, in Vitória (state of Espírito Santo), Trombetas (state of Pará), São Luís (state of Maranhão) and Aracaju (state of Sergipe).

4.1.4 Projects logistics

Southeastern Corridor project. We are investing in the EFVM railroad and Tubarão Port in order to increase our logistics capacity in our Southeastern System for iron ore. The estimated total cost is US$553 million, and the conclusion of the project is scheduled for the second half of 2009.

Litorânea Sul railroad. The Litorânea Sul railroad will be 165-kilometers long and will serve the Anchieta Industrial complex and a new port to be built in Ubu, both in the Brazilian state of Espírito Santo. This project is still subject to board approval. The estimated total cost of this project is US$935 million. Its conclusion has been preliminarily scheduled for the first half of 2012.

4.2 Energy

4.2.1 Operations energy

We have developed our energy assets based on the current and projected energy needs of our mining operations, with the goal of reducing our energy costs and minimizing the risk of energy shortages.

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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 and electric energy shortages (as experienced in Brazil in the second half of 2001). We currently have seven hydroelectric power plants in operation. In 2008, our total energy capacity in Brazil was 4.152 GWh. We use the electricity produced by these plants for our internal needs. As a large consumer of electricity, we expect that investing in power projects will help us reduce costs and will protect us against energy price volatility. However, we may experience delays in the construction of certain generation projects due to environmental and regulatory issues, which may lead to higher costs.

Canada

In 2008, our wholly-owned and operated hydroelectric power plants in Sudbury generated 19.1% of the electricity requirements of our Sudbury operations. The power plants consist of five separate generation stations with an installed generator nameplate capacity of approximately 56 MW. The output of the plants is limited by water availability, as well as constraints imposed by a water management plan regulated by the provincial government. Over the course of 2008, the power system operator distributed electrical energy at the rate of approximately 211.5 MW to all surface plants and mines in the Sudbury area.

In 2008, diesel generation generated 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 approximately 25 MW.

Indonesia

Energy costs are a significant component of our nickel production costs for the processing of lateritic ores at our PT Inco operations in Indonesia. A major portion of PT Inco s electric furnace power requirements are supplied at low-cost by its two hydroelectric power plants on the Larona River: (i) the Larona plant, which generates an average of 165 MW, and (ii) the Balambano plant, which generates an average of 110 MW. PT Inco has thermal generating facilities which include 24 cat-type diesel generators, with capacity of 1 MW each, five Mirless Black diesel generators being converted from diesel to fuel oil, and one oil burning steam turbine generator. These generators have the capacity to provide 80 MW of power. Since October 2008, all thermal facilities have been shut down in order to reduce operational costs.

4.2.2 Projects energy

We are developing the following energy projects:

Barcarena thermal power plant. We plan to start the construction of a coal-fired thermal power plant in Brazil with 600 MW of capacity in the second half of 2009, subject to obtaining required environmental licenses. Completion is scheduled for the second half of 2011. Our estimated total investment in the project is US$898 million.

Estreito hydroelectric power plant. In the second half of 2007, we began construction of the Estreito hydroelectric power plant, located on the Tocantins River, on the border of the Brazilian states of Maranhão and Tocantins. The plant will have an installed capacity of 1,087 MW. Completion is targeted for the second half of 2010. We have a 30% stake in the consortium that will build and operate the plant. Our estimated share of the total investment is US$514 million.

Karebbe hydroelectric power plant. Karebbe will be the third hydroelectric power plant built by PT Inco in Sulawesi, Indonesia. It is intended to reduce production costs and to produce enough energy to enable the potential expansion of production to 90,000 metric tons per year of nickel in matte. The estimated total cost is US$410 million, and start-up is scheduled for the first half of 2011.

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We also hold 58.08% of a consortium that has a concession to build the Santa Isabel hydroelectric power plant on the Araguia River in Brazil. We continue our efforts to obtain the necessary environmental licenses to begin construction.

We are participating, through joint ventures, in natural gas exploration efforts in Brazil. Currently, we have minority stakes in 16 consortiums to explore natural gas in 26 blocks located in Espírito Santo, Pará-Maranhão, Parnaíba and Santos Basins. We aim to use any natural gas discovered to meet our energy needs. We expect at least three exploration wells to be drilled during 2009.

5. Other investments

5.1 Steel

We have ownership interest in a steel company, as set forth in the following table.

Company	Location	Our share of capital		
		Voting	Total	Partners
		(%)		
CSI	California, United States	50.0	50.0	JFE Steel

California Steel Industries (CSI) is a flat-rolled steel producer located in the United States. It produces approximately 1.8 million metric tons of flat steel per year.

We are developing the following steel projects in order to create additional demand for our iron ore and iron ore pellets:

ThyssenKrupp-CSA Siderúrgica do Atlântico Ltda. We have a minority stake in an integrated steel slab plant in the Brazilian state of Rio de Janeiro, which is currently under construction. Our total investment will be US$630 million, corresponding to a 10% stake in the joint venture. Start-up is scheduled for the first half of 2010.

Companhia Siderúrgica de Pecém (CSP). In November 2007, we signed a memorandum of understanding with Dongkuk Steel Mill Co. (Dongkuk), one of the largest steel producers in South Korea, for the construction of a steel slab plant in the Brazilian state of Ceará with initial production capacity of 2.5 million metric tons per year with the possibility for expansion to 5 million metric tons per year. In April 2008, we signed a new memorandum of understanding with Dongkuk and JFE Steel Corporation (JFE) to conduct a feasibility study to analyze the construction of a larger steel slab plant, with initial production capacity of 5 to 6 million metric tons per year. Depending on the outcome of the feasibility study, JFE will either participate in the project as a majority shareholder or not at all. In the former case, we expect our stake in CSP s capital to be no more than 20%. In the latter case, we and Dongkuk will construct the plant as contemplated in the November 2007 memorandum of understanding and, in such case, we expect our stake in CSP s capital to be 40%. This project is subject to board approval, and our total investment has not yet been determined.

Marabá. We are conducting a feasibility study for the construction of a steel plant in Marabá, in the Brazilian state of Pará. The plant would have production capacity of 2.5 million metric tons per year of semi-finished steel and would entail an estimated investment of US$3.3 billion. Start-up of this project,

which is subject to board approval, would be in 2013.

Companhia Siderúrgica de Vitória (CSV). We are acquiring the interest of our former joint venture partner Baosteel Group Corporation in CSV, which was established to construct an integrated steel slab plant Brazil. We are renaming CSV Companhia Siderúrgica de Ubu (CSU). CSU is expected to have initial production capacity of 5 million metric tons per year and will undertake the conceptual engineering studies and licensing process. However, in the event the project is

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implemented, we expect to find a majority partner and retain only a 20% stake. This project is subject to board approval, and our total investment has not yet been determined.

RESERVES

Presentation of information concerning reserves

The estimates of proven and probable ore reserves at our mines and projects and the estimates of mine life included in this annual report have been prepared by our staff of experienced geologists and engineers, unless otherwise stated, and calculated in accordance with the technical definitions required by the SEC. Under the SEC s Industry Guide 7:

Reserves are the part of a mineral deposit that could be economically and legally extracted or produced at the time of the reserve determination.

Proven (measured) reserves are reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, working or drill holes; grade and/or quality are computed from the results of detailed sampling and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well-established.

Probable (indicated) reserves are reserves for which quantity and grade and/or quality are computed from information similar to that used for proven (measured) reserves, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven (measured) reserves, is high enough to assume continuity between points of observation.

We periodically revise our reserve estimates when we have new geological data, economic assumptions or mining plans. During 2008, we performed an analysis of our reserve estimates for certain projects, which is reflected in new estimates as of December 31, 2008. Reserve estimates for each operation are for 100% of the operation and assume that we either have or will obtain all of the necessary rights to mine, extract and process ore reserves at each mine. Where we own less than 100% of the operation, reserve estimates have not been adjusted to reflect our ownership interest. Certain figures in the tables, discussions and notes have been rounded. For a description of risks relating to reserves and reserve estimates, see *Item 3. Key information Risk factors*.

Iron ore reserves

In preparing iron ore reserve data, we used price assumptions that did not exceed the following three-year (2006 to 2008) historical average prices for iron ore:

US$0.9675 per Fe unit for Southeastern System fines; and

US$1.0088 per Fe unit for Carajás fines.

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Our iron ore reserve estimates are of in-place material after adjustments for mining depletion, with no adjustments made for metal losses due to processing.

Iron ore Southeastern System mines(1)

	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Itabira complex						
Conceição	321.1	51.4	28.0	58.9	349.1	52.0
Minas do Meio	344.7	53.7	176.9	56.1	521.7	54.5
Centrais complex						
Água Limpa/Cururu	46.5	41.8	6.3	42.2	52.8	41.8
Gongo Soco	54.2	64.6	20.2	58.6	74.4	63.0
Brucutu	295.0	52.3	364.2	50.1	659.2	51.1
Baú			37.1	55.7	37.1	55.7
Apolo(2)	145.2	60.3	133.5	56.2	278.7	58.3
Andrade	106.8	59.7	14.1	54.8	120.9	59.2
Mariana complex						
Alegria	185.2	50.2	55.7	48.1	240.8	49.7
Fábrica Nova	511.3	47.0	351.4	44.2	862.6	45.8
Fazendão	251.5	50.1	94.5	49.7	346.0	50.0
Timbopeba			73.3	55.2	73.3	55.2
Urucum						
Mina de Ferro	8.1	62.7	29.5	62.1	37.5	62.3
Total Southeastern System	2,269.6	51.7	1,384.6	50.8	3,654.2	51.4

(1) Tonnage is stated in millions of metric tons of wet run-of-mine. Grade is % of Fe. Approximate drill hole spacings used to classify the reserves were: 100m x 100m to proven reserves and 200m x 200m to probable reserves.

(2) Formerly Maquiné.

Iron ore Southeastern System mines

	Type	Operating since	Projected exhaustion date	Vale interest (%)
Itabira complex				
Conceição	Open pit	1957	2023	100
Minas do Meio	Open pit	1976	2023	100
Centrais complex				100
Água Limpa/Cururu	Open pit	2000	2013	50
Gongo Soco	Open pit	2000	2013	100

Brucutu	Open pit	1994	2027	100
Baú	Open pit		2029	100
Apolo	Open pit		2029	100
Andrade(1)	Open pit	2005	2027	100
Mariana complex				
Alegria	Open pit	2000	2029	100
Fábrica Nova	Open pit	2005	2023	100
Fazendão	Open pit	1976	2032	100
Timbopeba	Open pit	1984	2009	100
Urucum				
Mina de Ferro	Open pit	1994	2023	100

(1) We entered into a 40-year contract with Companhia Siderúrgica Belgo-Mineira to lease the Andrade mine.

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Iron ore Southern System mines(1)(2)

	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Minas Itabiritos complex						
Segredo/João Pereira	404.0	46.1	472.0	43.8	876.0	44.9
Sapecado(3)	109.2	52.8	145.2	53.5	254.4	53.2
Galinheiro(3)	132.0	54.7	191.6	54.1	323.6	54.3
Vargem Grande complex						
Tamanduá	305.9	56.6	210.1	51.5	516.0	54.5
Capitão do Mato	227.1	56.2	598.7	50.4	825.8	52.0
Abóboras	269.5	46.8	181.5	43.8	450.9	45.6
Paraopeba complex						
Jangada	45.6	66.6	15.7	66.2	61.3	66.5
Córrego do Feijão	31.5	67.0	3.5	63.1	35.0	66.6
Capão Xavier	92.6	65.1	10.4	64.4	103.0	65.0
Mar Azul			26.6	55.9	26.6	55.9
Total Southern System	1,617.4	52.9	1,855.2	49.1	3,472.6	50.9

(1) Tonnage is stated in millions of metric tons of wet run-of-mine. Grade is % of Fe. Approximate drill hole spacings used to classify the reserves were: 100m x 100m to proven reserves and 200m x 200m to probable reserves.

(2) Mines formerly categorized as part of the MBR System are now included in the Southern System.

(3) The Galinheiro reserves were separated from the Sapecado reserves and include the Pico reserves.

Iron ore Southern System mines

	Type	Operating since	Projected exhaustion date	Vale interest (%)
Minas Itabiritos complex				
Segredo/João Pereira	Open pit	2003	2040	100
Sapecado	Open pit	1942	2030	100
Galinheiro	Open pit	1942	2030	100
Vargem Grande complex				
Tamanduá	Open pit	1993	2040	100
Capitão do Mato	Open pit	1997	2050	100
Abóboras	Open pit	2004	2040	100
Paraopeba complex				
Jangada	Open Pit	2001	2017	100
Córrego do Feijão	Open pit	2003	2014	100
Capão Xavier	Open pit	2004	2021	100
Mar Azul	Open pit	2006	2010	100

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	Iron ore Northern System mines(1)					
	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Serra Norte complex						
N4W	1,284.0	66.5	285.7	66.1	1,569.7	66.5
N4E	331.5	66.5	96.2	66.0	427.7	66.4
N5-W	51.1	66.5	187.2	66.1	238.3	66.2
N5E(2)	344.6	67.4	321.2	67.3	665.8	67.4
Serra Sul						
S11	3,045.8	66.8	1,193.7	66.7	4,239.6	66.8
Serra Leste						
SL1	55.7	66.2	5.2	66.4	60.9	66.2
Total Northern System	5,112.7	66.7	2,089.3	66.6	7,202.0	66.7

(1) Tonnage is stated in millions of metric tons of wet run-of-mine. Grade is % of Fe. Approximate drill hole spacings used to classify the reserves are: 200m x 150m to proven reserves and 300m x 200m to probable reserves, except SL1 which is 100m x 100m to proven reserves and 200m x 200m to probable reserves.

(2) Reserves previously classified under N5E-N and N5S were incorporated in the N5E reserve model.

	Iron ore Northern System mines			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
Serra Norte				
N4W	Open Pit	1994	2031	100
N4E	Open pit	1984	2025	100
N5-W	Open pit	1998	2023	100
N5E	Open pit	1998	2017	100
Serra Sul				
S11	Open pit		2059	100
Serra Leste				
SL1	Open pit		2039	100

	Iron ore Total reserves for all systems(1)					
	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Total Southeastern System	2,269.6	51.7	1,384.6	50.8	3,654.2	51.4
Total Southern System	1,617.4	52.9	1,855.2	49.1	3,472.6	50.9
Total Northern System	5,112.7	66.7	2,089.3	66.6	7,202.0	66.7

Total Vale	8,999.7	60.5	5,329.1	56.4	14,328.8	59.0

(1) Tonnage is stated in millions of metric tons of wet run-of-mine. Grade is % of Fe.

Changes in iron ore reserves: 2008 versus 2007

Our iron ore reserve estimates increased from 7,267.8 to 14,328.8 million metric tons. The increase mainly reflects (i) the inclusion of the huge reserves of S11, part of the Serra Sul deposit in Carajás, (ii) the expansion of the N4W reserves into a continuous body to the south of the deposit, and (iii) the inclusion of the low-grade itabirite reserves for the Vargem Grande complex (the Tamanduá, Capitão do Mato and Abóboras mines). All of these deposits have been intensively drilled over the past four years, and the related projects (Serra Sul, Carajás 130 Mt, and Vargem Grande (formerly Itabiritos)) are now in feasibility or pre-feasibility stages. Moreover, our reserve estimates for Segredo/João Pereira increased due to the expansion of the open-pit project, which was undertaken in order to include low-grade materials, that will be used to feed a new concentration plant. Changes in the other reserves reflect mining production during the year and small changes in new updated geological models and/or pit designs and reserve classifications.

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Manganese ore reserves

In preparing manganese reserve data, we used price assumptions that did not exceed the three-year (2006 to 2008) historical average price for manganese of US$349.50 per metric ton (published by Ryan s Notes). We have adjusted ore reserve estimates for extraction losses and metallurgical recoveries during extraction.

	Manganese ore reserves(1)					
	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Azul	35.5	35.7	7.2	33.3	42.6	35.2
Urucum			7.0	44.4	7.0	44.4
Morro da Mina	9.2	24.3	6.1	24.3	15.3	24.3
Total	44.7	33.4	20.3	34.4	64.9	33.6

(1) Tonnage is stated in millions of metric tons of wet run-of-mine. Grade is % of Mn.

	Manganese ore mines			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
Azul	Open pit	1985	2020	100
Urucum	Underground	1976	2020	100
Morro da Mina	Open pit	1902	2045	100

Changes in manganese ore reserves: 2008 versus 2007

Our manganese ore reserve estimates increased from 58.6 to 64.9 million metric tons in 2008, due to revision of the ultimate pit in Morro da Mina and Azul Mine. The economic assumptions were updated based on a three-year average price revision for both mines, the removal of some physical restrictions at Morro da Mina (relocation of the mineral processing plant occurred in 2008) and a revised cut-off grade for the Azul mine based on new market product specifications. During 2009, we are performing an analysis of our manganese ore reserve estimates and new exploration drilling, which will be reflected in comprehensive new estimates as of December 31, 2009.

Nickel ore reserves

In preparing nickel reserve data, we used price assumptions that did not exceed the three-year (2006 to 2008) historical average LME spot price for nickel of US$27,297 per metric ton. Our nickel reserve estimates are of in-place material after adjustments for mining depletion and mining losses (or screening and drying in the cases of Sulawesi and Goro) and recoveries, with no adjustments made for metal losses due to processing.

	Nickel ore reserves(1)		
	Proven	Probable	Total

	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Canada						
Sudbury	75.6	1.20	74.8	1.14	150.4	1.17
Thompson	10.1	1.94	14.4	1.67	24.5	1.78
Voisey s Bay	23.0	3.03	3.0	0.68	26.0	2.76
Indonesia(2)						
Sulawesi	88.7	1.81	64.0	1.72	152.7	1.77
New Caledonia(2)						
Goro	100.8	1.35	23.5	1.91	124.3	1.46
Brazil						
Onça Puma	55.1	1.79	27.6	1.62	82.7	1.73
Vermelho						
Total	353.3	1.63	207.2	1.50	560.6	1.58

(1) Tonnage is stated in millions of dry metric tons. Grade is % of nickel.

(2) We have rights to other properties in Indonesia, New Caledonia and in other locations, which have not yet been fully explored.

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	Nickel ore mines			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
Canada				
Sudbury	Underground	1885	2042	100
Thompson	Underground	1960	2021	100
Voisey s Bay	Open pit	2005	2019	100
Indonesia				
Sulawesi	Open cast	1978	2037	61.0
New Caledonia				
Goro	Open pit		2036	74.0
Brazil				
Onça Puma	Open pit		2039	100

Changes in nickel ore reserves: 2008 versus 2007

Reserves at our Sudbury operations decreased from 160.3 to 150.4 million metric tons, after mining depletion, while nickel grades remained similar. The change was essentially due to reclassification of mineral reserves to mineral resources at Stobie Mine and at the non-operating Blezzard deposit, which was partially offset by exploration additions and re-evaluations at our operating mines.

Reserves at our Thompson operations remained stable at 24.5 million metric tons. Mining depletion was partially offset by ore reserve additions resulting from exploration and mine plan re-evaluations. The estimated average nickel grade declined by 2%.

Reserves at our Voisey s Bay operations decreased from 28.9 to 26.0 million metric tons, primarily due to mining depletion and a copper grade increase caused by a reduction of the mining internal dilution rate. This reduction is supported by the reconciliation of three years of production data with the life-of-mine plan estimates.

Reserves at Sulawesi decreased from 160.9 to 152.7 million metric tons, after adjustments for mining depletion, changes in plant feed chemistry operational targets and the reassessment of ore quantity estimates on steep slopes. These adjustments were partially offset by additional drilling that converted mineral resources to reserves.

Reserves at Goro increased from 120.0 to 124.3 million metric tons after consideration of additional drilling, feed, preparation attrition revisions and a more accurate interpolation of ore and waste interfaces.

Reserves at Onça Puma remained unchanged from 2007 estimates, since no production activities occurred in 2008.

Reserves at Vermelho, which we reported last year, have been downgraded to mineral resources as a result of a review underway to change the plant flowsheet design in order to reduce capital expenditures and operational costs. As a result, the project s technical and economic viability cannot be demonstrated.

Bauxite ore reserves

In preparing bauxite reserve data, we used price assumptions that did not exceed the three-year (2006 to 2008) historical average realized sales price for bauxite of US$30.56 per metric ton. We have adjusted ore reserve estimates for mass recoveries during washing, bone dry.

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	Bauxite ore reserves(1)					
	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
MRN						
Almeidas	1.8	50.2			1.8	50.2
Aviso	22.1	51.2			22.1	51.2
Bacaba	6.8	53.5			6.8	53.5
Saracá V	2.2	47.9			2.2	47.9
Saracá W	11.7	49.8			11.7	49.8
Bela Cruz	45.1	52.1	22.2	51.6	67.3	52.1
Cipó	2.1	49.8	4.6	49.8	6.7	49.8
Teófilo	27.9	50.1	5.3	49.4	33.2	50.1
Aramã	8.6	49.8	1.4	49.1	10.0	49.8
Greigh	1.8	48.9	0.7	48.8	2.4	48.8
Monte Branco	16.9	49.0	24.3	49.1	41.2	48.8
Total MRN	146.8	50.8	58.5	50.1	205.4	50.6
Paragominas						
Miltonia 3	141.0	49.4	55.4	49.4	196.4	49.4
Miltonia 5	95.7	47.3	2.9	47.3	98.6	47.3
Total Paragominas	236.7	48.6	58.3	49.3	295.0	48.7

(1) Tonnage is stated in millions of metric tons of washed product (bone dry). Grade is % of Al_2O_3.

	Bauxite ore mines			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
MRN				
Almeidas	Open pit	2002	2009	40.0
Aviso	Open pit	2003	2011	40.0
Bacaba	Open pit	2009	2011	40.0
Saracá V	Open pit	1979	2009	40.0
Saracá W	Open pit	2006	2016	40.0
Bela Cruz	Open pit		2019	40.0
Cipó	Open pit		2023	40.0
Teófilo	Open pit		2023	40.0
Aramã	Open pit		2019	40.0
Greigh	Open pit		2016	40.0
Monte Branco	Open pit		2020	40.0
Paragominas				
Miltonia 3	Open pit	2006	2032	100

Miltonia 5	Open pit	2032	100

Changes in bauxite ore reserves: 2008 versus 2007

MRN s bauxite reserves increased from 164.9 to 205.4 million metric tons, primarily due to research and valuation of new mining areas in 2008.

Paragominas bauxite reserves decreased from 299.9 to 295.0 million metric tons, primarily due to mining depletion. The mine contains 692,000 metric tons of stockpiled material that was taken into account in the reserve calculations.

Copper ore reserves

In preparing copper reserve data, we used price assumptions that did not exceed the three-year (2006 to 2008) historical average LME spot price for copper of US$6,977 per metric ton. Our copper reserve estimates

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are of in-place material after adjustments for mining depletion and mining losses and recoveries, with no adjustments made for metal losses due to processing.

	Copper ore reserves(1)					
	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Canada						
Sudbury	75.6	1.43	74.8	1.27	150.4	1.35
Thompson	10.1	0.13	14.4	0.12	24.5	0.12
Voisey s Bay	23.0	1.78	3.0	0.38	26.0	1.62
Brazil						
Sossego	124.6	1.00	41.9	0.91	166.5	0.93
Salobo	508.2	0.80	420.3	0.74	928.5	0.77
118						
Total	741.5	0.92	554.4	0.81	1,295.9	0.86

(1) Tonnage is stated in millions of metric tons of dry run-of-mine. Grade is % of copper.

	Copper ore mines			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
Canada				
Sudbury	Underground	1885	2042	100
Thompson	Underground	1960	2021	100
Voisey s Bay	Open pit	2005	2019	100
Brazil				
Sossego	Open pit	2004	2021	100
Salobo	Open pit		2030	100

Changes in copper ore reserves: 2008 versus 2007

Our copper ore reserve estimates for our Canadian operations decreased from 213 to 201 million metric tons for the reasons discussed in connection with nickel reserves above.

Reserves at Sossego decreased from 181.8 to 166.5 million metric tons, primarily reflecting mining depletion, and a review of pit optimization with an updated economic model with increased operational costs.

Reserves at Salobo were unchanged from 2007 estimates, at 928.5 million metric tons, because no production activities occurred in 2008.

Reserves at 118, which we reported last year, have been downgraded to mineral resources as a result of delays in environmental licensing and the decision to evaluate the resources of sulfide copper ore in addition to the previously

analyzed resources of oxide copper ore.

Cobalt ore reserves

We expect to recover significant quantities of cobalt as a by-product of our Canadian operations and from the Goro project. Our cobalt reserve estimates are of in-place material after adjustments for mining depletion and mining losses (or screening and drying in the case of Goro) and recoveries, with no adjustments made for metal losses due to processing.

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	Cobalt ore reserves(1)					
	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Canada						
Sudbury	75.6	0.04	74.8	0.03	150.4	0.04
Voisey s Bay	23.0	0.15	3.0	0.03	26.0	0.14
New Caledonia						
Goro	100.8	0.12	23.5	0.08	124.3	0.11
Total	199.4	0.09	101.3	0.04	300.7	0.08

(1) Tonnage is stated in millions of metric tons. Grade is % of cobalt.

	Cobalt ore mines			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
Canada				
Sudbury	Underground	1885	2042	100
Voisey s Bay	Open pit	2005	2019	100
New Caledonia				
Goro	Open pit		2036	74.0

Changes in cobalt ore reserves: 2008 versus 2007

Our cobalt reserve estimates changed from 2007 to 2008 for the reasons discussed in connection with nickel reserves above.

PGMs and other precious metals reserves

We expect to recover significant quantities of precious metals as by-products of our Canadian operations and from the Salobo project. Our reserve estimates are of in-place material after adjustments for mining depletion and mining losses and recoveries, with no adjustments made for metal losses due to processing.

	Precious metals reserves(1)					
	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Canada						
Sudbury						
Platinum	75.6	0.60	74.8	0.90	150.4	0.70
Palladium	75.6	0.80	74.8	1.10	150.4	0.90
Gold	75.6	0.30	74.8	0.40	150.4	0.30

Brazil						
Sossego						
Gold	124.6	0.28	41.9	0.24	166.5	0.27
Salobo						
Gold	508.2	0.50	420.3	0.40	928.5	0.46
Total Gold	708.4	0.44	537.0	0.39	1,245.4	0.42

(1) Tonnage is stated in millions of dry metric tons. Grade is grams per dry metric ton.

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	Precious metals mines			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
Canada				
Sudbury	Underground	1885	2042	100
Brazil				
Sossego	Open pit	2004	2021	100
Salobo	Open pit		2030	100

Changes in PGMs and other precious metals reserves: 2008 versus 2007

The decrease in our platinum, palladium and gold reserve estimates from 2007 to 2008 for the Canadian operations was due to the reasons discussed in connection with nickel reserves above.

Kaolin ore reserves

In preparing kaolin reserve data, we used price assumptions that did not exceed the three-year (2006 to 2008) historical average realized sales price for kaolin of US$184.91 per metric ton. Our reserve estimates are of in-place material after adjustments for mining depletion and mining losses and recoveries, with no adjustments made for metal losses due to processing.

	Kaolin ore reserves(1)					
	Proven		Probable		Total	
	Tonnage	Brightness	Tonnage	Brightness	Tonnage	Brightness
Morro do Felipe	9.6	86.7	23.1	86.8	32.7	86.7
Rio Capim	34.8	82.5	8.6	81.9	43.5	82.4
Total	44.5	84.6	31.7	84.4	76.2	84.5

(1) Tonnage is stated in millions of metric tons. Brightness is stated in percentage terms.

	Kaolin ore mines			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
Morro do Felipe	Open pit	1976	2030	86.2
Rio Capim	Open pit	1996	2030	61.5

Changes in kaolin ore reserves: 2008 versus 2007

Reserves at Morro do Felipe decreased from 34.1 to 32.7 million metric tons, primarily reflecting mining depletion in 2008 and, to a lesser extent, a reduction in estimates to reflect differences between actual recoveries and amounts predicted by our reserve model.

Reserves at Rio Capim increased from 29.1 to 43.5 million metric tons due to the increase in the number of holes and the development of a new three-dimensional geological model.

During 2009, we are performing an analysis of our kaolin ore reserve estimates, which will be reflected in comprehensive new estimates as of December 31, 2009.

Potash ore reserves

In preparing potash reserve data, we used price assumptions that did not exceed the three-year (2006 to 2008) historical average realized sales price for potash of US$350.12 per metric ton. Our reserve estimates are of in-place material after adjustments for mining depletion and mining losses and recoveries, with no adjustments made for metal losses due to processing.

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	Potash ore reserves(1)					
	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Taquari-Vassouras	3.3	28.0	6.5	28.0	9.8	28.0

(1) Tonnage is stated in millions of dry metric tons. Grade is % of KCl.

	Potash ore mine			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
Taquari-Vassouras(1)	Underground	1986	2012	100

(1) We have a 25-year lease contract, which was signed in 1991, with Petrobras.

Changes in potash ore reserves: 2008 versus 2007

Our potash reserves decreased from 12.9 to 9.8 million metric tons, mainly reflecting mining depletion in 2008.

Phosphate reserves

In preparing phosphate reserve data, we used price assumptions that did not exceed the three year (2006 to 2008) historical average benchmarking prices for phosphate concentrate of US$153.5 per metric ton (published by CRU Fertilizer Week). Our reserve estimates are of in-place material after adjustments for mining depletion, mining losses and recoveries, with no adjustments made for metal losses due to processing. The year 2008 is the first year for which we have reported phosphate reserves.

	Phosphate reserves(1)					
	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Bayovar	245.4	17.1	2.1	15.0	247.5	17.1

(1) Tonnage is stated in millions of dry metric tons. Grade is % of P_2O_5.

	Phosphate ore mine			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
Bayovar	Open pit		2037	100

Coal reserves

In preparing coal reserve data, we used price assumptions that did not exceed the following (2006 to 2008) historical average prices (realized sales and benchmarking prices) for coal:

US$104.87 per metric ton of hard metallurgical coal;

US$65.66 per metric ton of pulverized coal injection (PCI); and

US$53.11 per metric ton of thermal coal.

Our coal reserve estimates are of in-place material after adjustments for mining depletion, in-situ moisture content, anticipated mining losses and dilution, but excluding any adjustment for losses associated with beneficiation of raw coal mined to meet saleable product requirements. Our coal reserve estimates were prepared by the following independent consultants: Mr. Colin Coxhead (Integra Coal), SRK Consulting (Carborough Downs), MB Mining Consultants and Hoskings Resource Management (Isaac Plains), and Snowden Mining Industry Consultants Pty Ltd (Moatize).

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		Coal ore reserves(1)			
	Coal type	Proven (tonnage)	Probable (tonnage)		Total (calorific value)
Integra Coal:					
South Opencut	Metallurgical and thermal				28.5 (thermal)
Middle Liddell Seam	Metallurgical	1.2	14.6	15.8	
Barret and Hebden Seam	Metallurgical				
North Opencut	Metallurgical and thermal				28.5 (thermal)
Total Integra Coal		1.2	14.6	15.8	
Carborough Downs	Metallurgical and PCI	41.2	5.0	46.2	31.7 (PCI)
Isaac Plains	Metallurgical, PCI and thermal	22.8	0.9	23.7	31.0 (PCI); 27.8 (thermal)
Broadlea	Metallurgical				
Moatize	Metallurgical	422	416	838	32
Total		487.2	436.5	923.7	

(1) Tonnage is stated in millions of dry metric tons. Calorific value is stated in Mj/kg and refers to the quality of marketable coal, quoted on a gross air dried basis. Calorific value is used in marketing thermal and PCI coals. Marketable coal quality reported is based on 2007 sales contract specifications, except for Moatize.

	Coal mines			
	Type	Operating since	Projected exhaustion date	Vale interest (%)
Integra Coal:				
South Opencut	Open pit	1999	2010	61.2
Middle Liddell Seam	Underground	1999	2014	61.2

Barret and Hebden Seam	Underground		2023	61.2
North Opencut	Open pit		2016	61.2
Carborough Downs	Underground	2006	2020	80.0
Isaac Plains	Open pit	2006	2016	50.0
Broadlea	Open pit	2006	2011	100
Moatize	Open pit		2046	100

Changes in coal reserves: 2008 versus 2007

Our coal reserves decreased from 995.2 to 923.7 million metric tons.

We are reporting Middle Liddell Seam reserves for the first time this year, at 15.8 million metric tons.

Reserves at Barret and Hebden Seam and North Opencut were reduced to zero, from 36.9 and 8.7 million metric tons, respectively, since they have been downgraded to mineral resources while new studies are underway.

Reserves at Carborough Downs decreased from 47 to 46.2 million metric tons, mainly reflecting mining depletion.

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Reserves at Isaac Plains increased from 19.0 to 23.7 million metric tons, mainly reflecting a reserve update and mining depletion.

Reserves at Moatize were unchanged from 2007 estimates, at 838 million metric tons, because no production activities occurred in 2008.

REGULATORY MATTERS

In this section, we describe the following:

- mining regulation in Australia, Brazil, Canada, Indonesia and New Caledonia;
- railroad regulation in Brazil;
- electric energy regulation in Brazil, Canada and Indonesia;
- environmental regulation in Australia, Brazil, Canada, Indonesia, New Caledonia and international standards;
- European regulation of hazardous substances; and
- Investment Canada Act undertakings.

Mining regulation

Australia mining regulation

In Australia, government approval is required for any mine and infrastructure development that could have a significant impact on a matter of national environmental significance. The key features of the regulatory arrangements in each state and territory are the following:

- The government owns all minerals (with some minor exceptions), and rights to minerals are separate from other interests in land.
- Exploration and mining activities must be carried out pursuant to a tenement granted by the state or territory in which the activities will take place. A tenement holder has an enforceable right to enter upon the land and undertake all works authorized by the terms of the grant and applicable legislation. The minister of the relevant state or territory may consent to an assignment of a tenement subject to the satisfaction of transfer conditions.
- Tenements are granted by the state upon satisfaction of certain conditions, such as: (i) posting of a security bond for site rehabilitation in accordance with the site environmental license or other requirements after completion of mining operations; (ii) payment of any outstanding rent or royalties; and (iii) compliance with the relevant state mining legislation.
- After a tenement is granted, further conditions apply for its duration, such as payment of royalties on extractions and sales.

Tenements and other licenses may be required for purposes incidental to mining, including access, storage and some processing activities such as washing and crushing.

Mining rights in Australia may also be subject to native title. Native title describes the rights and interests of Aboriginal and Torres Strait Islander people in land and waters according to their traditional laws and customs as recognized by the laws of Australia. Native title does not equate to our common understanding of title to land in the sense of ownership of land and may consist of different rights and interests. Examples include the right to access land, hunt, gather and fish, conduct ceremonies, camp; and have possession, use, occupation and enjoyment of the land. State laws require consultation with traditional owner claimants to

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identify cultural heritage values on areas to be disturbed by mining, and implementation of appropriate management plans.

All Australian states and territories impose statutory royalties on extraction of minerals and royalties on sales of extracted minerals. The amount of the extraction royalty, the method of its calculation and the minerals covered differ from jurisdiction to jurisdiction. While there are some flat-rate extraction royalties, others involve complicated calculations taking into account the market value of the mineral and an index price set by the jurisdiction. The royalty on revenues from sales of extracted minerals is levied net of certain allowable costs such as demurrage, marine costs (including ocean freight and insurance) and exchange losses. Currently, the royalty rates we pay on our coal operations are 6-8% in New South Wales and 7-10% in Queensland.

Compliance with the terms of a tenement and the applicable regulatory scheme may involve significant expenditures. Failure to comply with applicable requirements can result in financial penalties, prosecution or, in extreme cases, forfeiture of the tenements. Although the terms of a tenement and applicable regulations may be subject to change or amendment by the state or territory in certain circumstances, it is rare for this to occur unilaterally and without prior notice or negotiation.

We own, or have rights to acquire interest in, a combination of 496 exploration or mining tenements in Australia, covering 978,600 hectares in New South Wales, 778,600 hectares in Queensland and 861,600 hectares in Western Australia.

Brazil mining regulation

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

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

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

indeterminate period of time lasting until the exhaustion of the mineral deposit. Extracted minerals that are specified in the concession belong to the holder of the concession. With the prior approval of DNPM, the holder of a mining concession can transfer it to an unrelated party that is qualified to own concessions. In some cases, mining concessions are challenged by unrelated parties.

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We own a combination of 2,663 exploration licenses and mining concessions covering 8,115,316 hectares. We also have 1,175 applications comprising of bids and exploration licenses, covering a total of 7,930,702 hectares.

The Brazilian government charges us a royalty known as the CFEM (Compensação Financeira pela Exploração de Recursos Minerais) on the revenues from the sale of minerals we extract, net of taxes, insurance costs and costs of transportation. The current annual rates on our products are:

2% for iron ore, kaolin, copper, nickel, fertilizers and other minerals;

3% on bauxite, potash and manganese ore; and

1% on gold.

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

We are currently engaged in a series of administrative and other legal proceedings alleging that we have failed to pay the proper amount of CFEM. In addition, we are discussing with DNPM the applicable rate for potash. See *Item 8. Financial information Legal proceedings CFEM-related proceedings*.

Canada mining regulation

The Canadian provinces charge us a tax on profit from mining operations. Profit from mining operations is generally determined by reference to gross revenue from the sale of mine output and deducting certain costs, such as mining and processing costs and investment in processing assets. The statutory mining tax rates for each of the provinces in which we operate in Canada are: 10% in Ontario; 18% in Manitoba; and 15% in Newfoundland and Labrador.

Ontario

At our Sudbury operations, we hold (i) mining rights, (ii) surface rights, (iii) licenses of occupation and (iv) mining claims, each granted to us by the Province of Ontario.

Mining rights are rights to exploit and extract minerals on, in or under the land, and surface rights are rights to use the surface of the land. Mining rights and surface rights may be either owned or leased. Mining rights and surface rights that are owned remain in effect so long as we own the land to which the rights apply. Mining rights and surface rights that are leased remain in effect for the term of the lease, either 10 or 21 years. We own mining rights covering 82,058 hectares and surface rights covering 60,002 hectares, including a combination of mining and surface rights co-owned with third parties covering 1,198 hectares. All properties at our Sudbury operations that contain proven and probable ore reserves are owned by us, with the exception of a portion of ore reserves under Kelly Lake, which is under a 21-year mining lease from the Province of Ontario and which can be accessed from the Copper Cliff South Mine. We lease mining rights covering 14,116 hectares from the Province of Ontario. We do not expect any problems in obtaining renewals of these leases since the only requirement for renewal is payment of a nominal renewal fee. The next lease due for renewal expires in 2010.

Licenses of occupation allow the holder to use licensed land in the manner specified in each license, including the right to dig, excavate and remove ores and minerals from and under the land. We currently hold licenses of occupation covering 2,939 hectares in Ontario, of which approximately 17 hectares are jointly held with third parties.

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Mining claims are rights to explore the land covered by the claim. We hold mineral claims covering 8,455 hectares in Ontario, of which 6,596 hectares are jointly held with third parties.

The permission of the government of the Province of Ontario is required for us to export from Canada intermediate products derived from our Sudbury ores. In December 2005, the Ontario government granted us permission to continue to export intermediate nickel products to our nickel refinery in Clydach, Wales until December 31, 2015. In December 2005, the Ontario government granted us permission to continue to export semi-refined PGMs concentrate to our precious metals refinery in Acton, England until December 31, 2015. In June 2007, the Ontario government also granted us permission to ship copper anodes, copper concentrate and MK copper concentrate offshore for further processing until June 27, 2012. We are not aware of any reason at this time that would prevent us from reaching an agreement with the Province of Ontario to extend these permits for additional periods upon their expiration.

Manitoba

At our Thompson operations, our landholdings or mining rights consist of (i) order-in-council leases (OIC Leases), (ii) mining leases, and (iii) mineral claims.

OIC Leases entitle the lessee to explore for, and mine, all minerals in the subsurface (except hydrocarbons, industrial minerals and superficial deposits that are not incidental to the mining, milling, smelting and refining processes). OIC Leases provide for an initial 21-year term and two subsequent guaranteed renewals of 21 years each, for a total guaranteed lease period of 63 years. Subsequent lease renewals beyond the three guaranteed 21-year terms can be granted at the discretion of the Province of Manitoba. We currently hold a total of 2,947 OIC Leases covering 109,043 hectares. Of these, 29 OIC Leases, covering 488 hectares, are held by Mystery Lake Nickel Mines Limited, which is 82.6%-owned by Vale Inco (17.4% is held by Newmont Exploration of Canada). Vale Inco holds the remaining OIC Leases. All of our current OIC Leases have been renewed twice (each is in its third guaranteed 21 year term) and remain in effect through the 2022-2025 period.

Mineral leases are issued by the Province of Manitoba and convey (i) the exclusive right to the minerals (other than quarry minerals) existing on or under the land covered by the lease and (ii) access rights to erect buildings and structures (including shafts) to mine within the limits of the lease. The duration of mineral leases is 21 years, and they are renewable at the discretion of the Province s Minister of Science, Technology, Energy and Mines. We hold six mineral leases that cover 4,151 hectares in the Thompson nickel belt. These mineral leases remain in effect until April 1, 2013.

Mining claims are rights issued by the Province of Manitoba under provincial legislation, which convey to the holder (i) exclusive rights to the minerals (other than quarry minerals) existing on or under the land covered by the claim and (ii) access rights to explore for and develop minerals owned by the Province. A mining claim does not, however, entitle the holder to extract minerals from the land covered by the claim. In order to extract minerals from the land covered by a mining claim, the holder must obtain a mineral lease from the Province of Manitoba. We hold 161 mining claims covering 35,204 hectares.

Newfoundland and Labrador

At our Voisey s Bay operations, we hold (i) a mining lease, (ii) a surface lease, (iii) mining licenses and (iv) mineral claims.

All of the current estimated proven and probable ore reserves at Voisey s Bay are located on lands covered by the mining lease, which has a duration of 25 years. The mining lease confers the exclusive right to extract minerals and carry out mineral exploration, mining operations or mining processing and development in, on or under the lands, or

part of the lands, covered by the lease, subject to our continued compliance with the terms and conditions of an agreement entered into in September 2002 between Vale Inco and the government of Newfoundland and Labrador. Under the terms of the mining lease, production cannot exceed on average 2.2 million metric tons of ore annually for the first 10 years of mining operations and on average

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5.5 million metric tons of ore annually thereafter. The mining lease is subject to an order issued by the provincial government requiring us to complete primary production (smelting, processing or refining) in the Province of Newfoundland and Labrador of all minerals extracted under the lease. However, the government has also issued an order allowing us to export nickel concentrates containing up to 440,000 metric tons of contained nickel until we have completed the construction of a nickel processing facility in the Province. This mining lease can be renewed for further 10-year terms so long as we do not violate the terms of the lease and apply for renewal at least three months prior to the expiration of the current lease.

In conjunction with the mining lease for Voisey s Bay, we hold a surface lease entitling us to use certain lands necessary for our mining operations. Like the mining lease, the surface lease came into effect on September 30, 2002 for a period of 25 years, and may be renewed for further 10-year terms.

A mineral license is required to explore a parcel of land. We hold 1,978 mineral claims, which have been grouped into mineral licenses. The mineral licenses expire in 2014. There are no further renewal rights for these mineral licenses.

Indonesia mining regulation

PT Inco s operations in Indonesia are conducted pursuant to a Contract of Work with the Indonesian government, which expires in 2025. The Contract of Work gives PT Inco the exclusive right to mine nickel and nickel-containing minerals in certain areas on the Island of Sulawesi and to process and export the nickel and associated minerals recovered from those areas. In exchange, PT Inco pays a royalty fee on, among other items, its nickel production on the concession area and has made certain other commitments. Until March 2008 the royalty was equal to 1.5% of revenues from sales of nickel products. As of April 2008, the royalty payment was changed to equal a fixed amount based on sales volume (US$78 per metric ton).

In August 2008, we applied for permits to use forestry land located within the Contract of Work area and are in the process of providing supporting materials required for the forestry permits for Pomalaa.

Under the Contract of Work, PT Inco undertook to construct, subject to economic and technical feasibility, two additional production plants in Sulawesi, one in Pomalaa and another in Bahudopi. With respect to Pomalaa, we are reviewing the construction of a high-pressure acid leach processing facility to produce nickel hydroxide, an intermediate nickel product, with an annual production capacity of approximately 30,000 metric tons. We are also considering building a refinery at Bahudopi, with a capacity of approximately 30,000 metric tons per year to process the nickel hydroxide from Pomalaa. We plan to mine a saprolitic nickel orebody in Bahudopi. Ore from Bahudopi would be combined with ore from the Sorowako area to feed the existing pyrometallurgical processing facility in Sorowako. We are required to deliver a report to the Indonesian Department of Energy and Mineral Resources by the end of April 2009 evaluating the economic and technical feasibility of the construction of processing facilities at Pomalaa and Bahudopi. If PT Inco defaults on its obligations to build these facilities, these properties may have to be relinquished. We do not report reserves for the Bahudopi or Pomalaa areas.

In January 2009, a new Mining Law came into effect that introduces a new mining licensing scheme. The impact of the new Mining Law on PT Inco under the existing Contract of Work will remain unclear until implementing regulations have been promulgated, which is expected to occur by January 2010 at the latest. We are investigating the potential impacts that the new Mining Law on PT Inco s current operations and future prospects in Indonesia. Below are some of the issues raised under the new Mining Law.

- The new Mining Law provides that existing Contracts of Work remain in effect until their expiry, but it also requires the amendment of existing Contracts of Work to conform to the new Mining Law. It is unclear how these two provisions will be reconciled, but the government may require amendments to PT Inco s

Contract of Work.

PT Inco s Contract of Work covers an area of approximately 218,000 hectares, and it states that PT Inco is not subject to further relinquishment obligations. However, the new Mining Law provides for

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a maximum exploration-phase area per license of 100,000 hectares and a maximum production- phase area per license of 25,000 hectares. Under the new Mining Law, PT Inco is required to submit to the government for approval a work plan for all areas (including those not currently in production) for the remainder of the term covered by the contract. If the work plan is not approved, the new Mining Law calls for our mining area to be adjusted to the limits set forth in the law. All of PT Inco s reported mineral reserves are located in Sorowako, South Sulawesi province, in an area that PT Inco is currently actively mining.

It is unclear whether a Contract of Work holder will automatically obtain a mining business license (IUP or IUPK, as defined under the new Mining Law) once the Contract of Work expires. Based on current reserve estimates, PT Inco s life of mine plan for its Sorowako operations could last until 2037. We are unsure what the terms of any new mining license or renewal would be under the new Mining Law. If PT Inco is unable to continue its operations after its Contract of Work expires in 2025, we anticipate (assuming current rates of production) that approximately 92.2 million metric tons of our reported mineral reserves would be mineable prior to the expiry of the Contract of Work in 2025. Any further production would require adjustments to the life-of-mine plan.

The new Mining Law includes provisions such as requirements for domestic processing and refining, a new articulation of the basis for the royalty regime, an additional payment obligation equal to 10% of net profit for IUPK holders, priority for local and national contractors and restrictions on use of affiliated companies.

In August 2008, the Minister of Energy and Mineral Resources announced a new regulation relating to the procedure for the determination of production limitations, which would permit the Minister to place a limit on PT Inco s production level. While a production quota policy is to be designated at the national level, individual limits are to be allocated on a region-by-region basis (down to the Regency level) for those regions where a particular mineral is located. In substance, the regulation conflicts with PT Inco s rights under its Contract of Work, which currently leaves the determination of production level at the discretion of PT Inco. It is unclear how the system will work, and it is possible that a governmental regulation relating to production limitations may be issued in connection with the new Mining Law.

New Caledonia mining regulation

Concessions in New Caledonia generally represent long-term permits (usually 75-year terms, with some having longer or perpetual terms) granted for mining large deposits that entitle the holder to the exclusive right to exploit, extract and mine. A concession applies to one or several minerals defined by the granting decision along with its geographical location. The granting of a concession is based on the delineation of an exploitable ore body made during exploration activities conducted pursuant to exploration permits. Surface rights, which are rights to use surfaces on or outside mining permits for mining-related activities, can be granted independently of mineral rights.

Our 74%-owned subsidiary, Vale Inco Nouvelle-Calédonie S.A.S. (Goro Nickel), currently holds 67 mining concessions in the Massif du Sud in New Caledonia, covering 20,277 hectares and authorizing the mining of nickel, cobalt, chrome, iron ore and manganese. Our Goro project covers 6,571 hectares within eight of these mining concessions, of which four are perpetual in term, two are renewable prior to their expiry in 2016 and one is renewable prior to its expiry date in 2051. Goro Nickel holds 41 surface rights, including surfaces of other owners and an additional free land of the domain. A subsidiary of Vale Inco, Tiébaghi Nickel, holds an additional eight mining concessions outside the Goro project area, in a mining domain called Tiébaghi.

The enactment of a new mining law may occur as part of the Noumea Accord between New Caledonia and France. New Caledonia is an overseas territorial community (*collectivité territoriale*) of France with significant autonomy except in the areas of foreign relations, defense, judicial, currency and certain other related areas. The Noumea Accord

sets forth a process and timetable for increasing the autonomy of New Caledonia over the coming years, with a referendum to be held by 2014 on whether New Caledonia should

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become fully independent from France. Although we do not believe that these developments will have an adverse effect on the Goro project, there can be no assurances in this regard.

A mining law was passed in March 2009 that prohibits exporting ore from the Goro area and requires the ore to be processed in New Caledonia. In 2008, the South province s government, the owner of the seabed on which a pipeline is to be installed in order to evacuate the treated water from the plant, imposed a 1% royalty on the revenue of the business. The French State and Goro are challenging the legality of the royalty.

Railroad regulation

Brazil railroad regulation

The Brazilian Ministry of Transportation and the transportation regulatory agency (Agência Nacional de Transportes Terrestres), or ANTT, regulate and supervise the policies of the railroad transportation sector. The federal government may grant private companies concessions for the construction, operation or commercial development of railroads.

Railroad concession contracts granted by the federal government impose certain shareholder ownership limitations. The concession contract for FCA limits shareholder ownership to 20% of the voting capital of the concessionaire, unless such limit is waived by ANTT. We own 99.9% of FCA, which ANTT has authorized. The 20% ownership limitation does not apply to our EFVM and EFC railroads. ANTT also sets different tariff limits for railroad services for each of the concessionaires and each of the different products transported. So long as these limits are respected, the actual prices charged can be negotiated directly with the users of such services.

The MRS concession contract provides that each shareholder can only own up to 20% of the voting capital of the concessionaire, unless otherwise permitted by ANTT. As a result of our acquisitions of CAEMI and Ferteco, our share in the voting capital of MRS surpassed this threshold. As a result, Vale waived its voting and veto rights with respect to MRS shares in accordance with a 2006 ANTT resolution. We continue to have some voting rights through the shareholdings of a subsidiary.

Our railroad concession contracts have a duration of 30 years and are renewable. 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 for 30 years of a 720-kilometer segment of the FNS railroad, in Brazil. This concession expires in 2037.

Electric energy regulation

Brazil electric energy regulation

The power industry in Brazil is regulated by the Ministry of Mines and Energy and the regulatory agency ANEEL. The role of ANEEL is to implement and enforce policies and regulations designated by the Ministry of Mines and Energy and aimed at organizing and regulating the electricity sector and power companies. ANEEL is responsible for ensuring an efficient and economical energy market through regulation, enforcement, as well as monitoring prices and the operational efficiency of power companies.

Under the law governing the electricity sector, concessions grant exclusive rights to generate and transmit or to distribute electricity in a particular area for a period of time that should be sufficient for the concessionaire to recover its investment. The concessions for power generation before December 11, 2003 were granted for up to 35 years and are renewable at the Federal Government s discretion for an additional period of up to 20 years. Concessions for power generation granted after December 11, 2003 are granted for up to 35 years, without the possibility of renewal.

Concessionaires (distributors) are required to supply electricity for public services, on a continuing basis, in sufficient quantity and within approved standards of quality.

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All of our concessions for power generation in Brazil were granted before December 11, 2003. The next concession to expire has an expiration date in 2028.

Given the hydrologic and integrated nature of the Brazilian electricity generation matrix, Decree No. 2655/1998 created the Mecanismo de Realocação de Energia (Energy Reallocation Mechanism), known as MRE, a mechanism for sharing hydrological risk, and consequently reducing generation volatility among all generators. In order to implement the MRE, ANEEL designates a level of energy production, known as Assured Energy, for each generator that may be reviewed every five years. Assured Energy is calculated in accordance with a statistical model based on average rainfalls in the relevant region, water flows of rivers and water levels in each plant s reservoir over a multi-year time frame.

Each generator is allowed to enter into contracts to sell up to 100% of its Assured Energy. To the extent a generator has signed contracts for the sale of its Assured Energy, and as long as MRE members, as a whole, are able to meet MRE Assured Energy levels, it receives payments based on these contractual terms, regardless of its level of actual generation. If all MRE members meet their contracted energy and there is a surplus of energy remaining, the net regional surplus generation is allocated among generators in different regions and this energy surplus may be sold in the wholesale market.

All contracts for energy purchases and sales are currently recorded in the wholesale market, the Câmara de Comercialização de Energia Elétrica, or the CCEE. The CCEE is a nonprofit private entity subject to the authorization, regulation and supervision of ANEEL, and is responsible for operating the wholesale energy market and for ensuring that energy transactions in the short-term market are settled and cleared in an efficient manner. The CCEE is primarily designed to effect the settlement of differences between the amount of energy contracted under bilateral contracts of the several market agents (generators, distributors, traders and large consumers), and the amount of energy actually consumed and produced. The settlement is done in accordance with the CCEE spot prices, which are expressed in R$/MWh and are calculated for each settlement period for each sub-market.

Under Law No. 10,848/2004 and the regulations promulgated pursuant to it, jurisdiction of certain regulatory areas is under the Ministry of Mines and Energy rather than ANEEL. Under this law, all consumers of electricity, including large consumers, such as Vale, must contract the totality of their energy needs through contracts. This law creates two parallel markets for energy: a regulated market, in which distributors enter into supply contracts with regulated customers, subject to regulated prices, and an unregulated market, in which *consumidores livres*, or free consumers, enter into contracts with independent power producers at prevailing market prices. Regulated consumers may migrate to the unregulated market, but only after the termination of their long-term contracts. Self-generators of energy, such as Vale, are required to provide a pre-determined percentage of their generated energy from concessions acquired after 2004 to the regulated market for distributors acquisition.

Canada electric energy regulation

The Canadian provinces are given significant jurisdictional responsibility in many key areas by the Canadian Constitution. The Constitution assigns jurisdiction over electricity and natural resources to the provinces, and as a result the Canadian electricity industry is primarily organized along provincial lines. As a consequence of this constitutional reality, as well as the variations in each province s political and physical environments, there are significant differences between the electricity industries of each of the provinces.

Federal level

In the context of the electricity industry, the federal sphere of responsibility is primarily derived from the constitutional authority over international and inter-provincial trade and commerce. As a result, the construction and

operation of international transmission lines as well as the regulation of electricity exports to the United States are matters that fall within the authority of the National Energy Board, a federal regulatory tribunal. Canada s nuclear industry is also federally-regulated; this responsibility falls to the Canadian Nuclear Safety Commission. An additional important area of joint responsibility is that of environmental protection.

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Responsibility for environmental matters (including the environmental assessment of electricity developments) is shared between the federal and provincial governments; which level of government may be paramount changes with various environmental, regulatory and government funding considerations.

Provincial level

With the exception of those areas of responsibility that are carved out for the federal government, as discussed above, most matters of electricity industry regulation and policy are addressed at the provincial level. Project developers must also obtain certain key environmental approvals at the provincial level.

Ontario

The power industry in Ontario is regulated by the Ontario Energy Board (the OEB). The OEB is responsible for setting rates and the licensing of all participants in the electricity sector in Ontario.

Under the legislative framework in Ontario, we are considered to be a generator, transmitter, distributor and retailer of electricity in Ontario. Pursuant to the Definitions and Exemptions Regulations under the Electricity Act (Ontario) and the Ontario Energy Board Act, the provincial government has decided for public policy reasons to exempt various parties from many of the regulatory requirements related to the electricity industry in Ontario, including rate regulation, licensing requirements, regulatory codes of conduct and financial record-keeping. It has exempted us from requirements applicable to our hydroelectric power plants. In order to maintain our exemption under these rules, we must, among other things, ensure that any price charged by us for transmitting or distributing electricity is no greater than the reasonable costs associated with transmission or distribution. In addition to meeting the requirements of the OEB, we are required to comply with the rules of the Independent Electricity System Operator (IESO) administered market.

Indonesia electric energy regulation

Under Electricity Law No. 15 of 1985 as implemented by Government Regulation No. 10 of 1989 (the Electricity Law), the electric power supply business is primarily conducted by a state-owned electric utility company (PLN), but private entities licensed by the government may also engage in the electric power supply or generation business, subject to certain limitations. PT Inco s existing hydroelectric power plants, which generate the majority of its electricity requirements, were constructed and are operated pursuant to a 1975 decree of the Indonesian government permitting private power generation under certain circumstances. We expect PT Inco to qualify for the IUKS license, which is available to a private entity that owns power generation facilities whose output is intended for its own purposes. An IUKS holder is generally permitted to sell its surplus of electricity to PLN.

The 1975 decree gives the government the right to acquire PT Inco s hydroelectric power plants upon two years notice to PT Inco. No such notice has been given by the government. If this right were to be exercised, the decree provides that the hydroelectric power plants would be acquired by the government at their depreciated value, subject to the government providing PT Inco with sufficient electricity to meet its operating requirements, at a rate based on cost plus a normal profit margin, for the remaining term of PT Inco s Contract of Work. The new hydroelectric dam that will be constructed as part of PT Inco s latest expansion program is also expected to be subject to this decree.

Environmental regulation

Environmental legislation is becoming stricter worldwide, which could lead to greater costs for environmental compliance. For instance, if we are required to modify installations, develop new procedures or purchase new equipment, our environmental compliance costs could increase.

Australia environmental regulation

Environmental regulation in Australia occurs through legislation at the federal, state and territory levels and, to a limited extent, the common law. For constitutional reasons, most environmental regulation occurs at

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the state or territory level and affects operations conducted within that state or territory. Environmental laws impact our Australian operations, principally by regulating:

- the rehabilitation of disturbed land;
- the emission or discharge of pollutants from our facilities;
- the remediation and/or cleanup of any contamination;
- the construction of water storage structures / stream diversions;
- access to water (including overland flows, streams, groundwater and reservoirs/pipelines);
- the protection of biodiversity, including protected species and ecosystems;
- the protection of indigenous and European cultural heritage;
- the management, storage and disposal of waste and hazardous substances; and
- the protection of air quality, including control of ground vibration, noise and odor.

In order to conduct our mining, energy generation and industrial activities in Australia, we must undertake environmental impact studies and submit reports or statements to relevant authorities that oversee the granting of environmental approvals. We seek to comply with all legal requirements and to achieve good relationships with interested parties, especially with communities located near our operations. Our environmental management processes are designed to provide a systematic approach to protection of environmental and social values.

Mine tenement holders are required to rehabilitate areas disturbed by mining to a post mining land use, as agreed with stakeholders. The minimum requirement of post mining landforms is that they be safe, stable, self-sustaining and non-polluting. Conditions attached to planning consents and environmental licenses include rehabilitation completion criteria.

Financial deposits and third party undertakings must be lodged to cover the third party cost of carrying out rehabilitation works. The financial undertakings must be maintained until the completion criteria are satisfied and rehabilitation works are completed to agreed standards.

There is a range of consequences for breaching Australia s environmental laws. Penalties range from substantial fines and jail terms to warning notices. Other consequences include compensation, suspension or revocation of a license, or an order to control, prevent or lessen the environmental harm caused by an offense. Directors and managers can, in some instances, be personally liable for the offenses.

Carbon Pollution Reduction Scheme

The Australian government is introducing a Carbon Pollution Reduction Scheme (CPRS) as part of a overall strategy to address climate change and its impact, both within Australia and globally. The government has made an unconditional commitment to reduce greenhouse gas emissions to 95% of 2000 levels by 2020 and a conditional commitment to reduce greenhouse gas emissions to 85% of 2000 levels by 2020 (provided that a global agreement by major economies is in place). Draft legislation was released in the first quarter of 2009, and the government s intention is to commence the CPRS on July 1, 2010.

The CPRS will be Australia s primary policy tool to drive reductions in emissions of the six greenhouse gases covered under the Kyoto Protocol. The scheme will put a price on carbon in a systematic way throughout the economy by employing a cap and trade mechanism. Under the CPRS, we will be required to acquire a permit for every metric ton of greenhouse gas emitted per year. The number of permits issued by the government each year will be limited and will decrease every year. We will be required to compete in the market to purchase the number of permits required, either through an auction process or on a secondary

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trading market. The initial permit price is anticipated to be approximately A$25, with a cap on prices of A$40 for the first five years.

In the early years some concessions will apply, in particular in relation to the coal sector through a Climate Change Action Fund. Under this Fund, assistance of up to A$250 million over five years will be provided to coal mine operations with high fugitive emissions to promote emissions abatement. A further A$500 million over five years will be provided as direct assistance to gassy coal mines to assist them to adjust while they explore abatement opportunities.

We are taking steps to manage our exposure under the scheme including improving systems to monitor, measure and report greenhouse gas emissions, including cost of emissions in modeling for decision making purposes and identifying opportunities to reduce our carbon emissions.

Brazil environmental regulation

Federal, state and municipal legislation contain provisions for the control and protection of the environment in Brazil. These laws govern the protection of vegetation, the use of natural resources, the reclamation and rehabilitation of mined areas, the control of atmospheric emissions, the treatment of industrial effluents, as well as the use, handling and final disposal of hazardous materials and the control of water resources.

In order to conduct our mining, energy generation and industrial activities, we must prepare environmental impact assessments and submit them to authorities that oversee the granting of environmental permits. We seek to comply with all legal requirements and to achieve good relationships with interested parties, especially communities located near our operations. Our environmental management system is designed to provide a systematic approach to environmental issues.

Under Brazilian Federal Law No. 9,605/1998, non-compliance with environmental laws and regulations can result in criminal penalties, such as imprisonment and other restrictions for individuals (including directors, officers and managers of companies), and fines and the mandatory rendering of public services by companies. Administrative penalties range from warnings and fines to the suspension of corporate activities, and may also include the loss or reduction of incentives, or the cancellation or interruption of credit facilities granted by governmental institutions.

Issuance of environmental licenses. We must obtain environmental licenses in order to build, develop, expand and operate facilities that use natural resources or may pollute the environment. License validities can vary from one to 10 years, and have to be renewed for the life of the undertaking. We seek to obtain the legally required licenses for each of our facilities and activities.

In some cases, this process requires a significant amount of time for the preparation of comprehensive environmental reports and their evaluation, as well as for the establishment of appropriate programs for environmental education of communities located in areas affected by the proposed projects. We enter into agreements with the appropriate federal and state governmental environmental authorities with respect to facilities whenever environmental non-compliance is detected in order to make these facilities compliant.

Environmental compensation. A federal environmental law (No. 9,985/2000) requires payment of environmental compensation to state and federal authorities, in order to create and maintain conservation areas. This law authorizes state governments to promulgate regulations setting forth a state-specific rate, which must be calculated for each project based on the degree of environmental impact caused. There are a number of uncertainties regarding the application of this law, including the rate that will be applied by the state governments and the basis for valuing investments.

Protection of vegetation. All of our projects in Brazil are located in areas subject to federal environmental laws, like the Brazilian Forest Code and the legal reserves decree. In order to develop projects in areas such as the Amazon region and the Brazilian savanna, we must maintain a certain amount of land

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undeveloped for environmental conservation. In the Atlantic Forest, which is protected by specific laws aimed at ensuring its sustainable development, we are required to set aside land for conservation that must be equivalent in both area and in ecological characteristics to any land that we use for mining activities in the forest. Additionally, mining activities in certain areas of the Atlantic Forest are restricted depending on the stage of vegetation growth.

Prevention and environmental control measures. Our environmental policies also aim to prevent, control and reduce the environmental impact caused by our business operations. We invested US$310 million in environment-related projects in 2008 in Brazil.

Water use. We are intensive water users in various states with hydrological resources that vary from very high water availability in the Amazon region to scarcity in the northeast of Brazil. The Hydrological Resources Management System implemented throughout Vale includes evaluation of the availability of water in the areas where we operate and programs to rationalize and control water use. We continually monitor new water legislation and regulations and take particular interest in requirements adopted under the National Policy of Hydrological Resources, which defines the conditions for obtaining water use grants and the fees applicable to that use and for effluents disposal.

Environmental control systems. As a mining company, air emissions control is one of our main objectives. Control equipment and systems, such as stockpiles and road water aspersion and use of chemical dust suppressants or installation of filters and electrostatic precipitators at our facilities are complemented by comprehensive monitoring systems and control software. Besides achievement of legal compliance, air quality in the installations and its effects in the neighboring communities are continuously evaluated, and we believe we make the necessary investments for air quality improvement.

With respect to improvements in water quality, we strive to treat and control the pollutants discharged into the sea and local rivers or other water bodies and also use extensive water recycling in our operations. We are researching new processes and technologies for the improvement of water use and recycling and treatment. Through our comprehensive waste management system, we aim to achieve greater control of the generation and disposal of our waste, to develop opportunities to reuse, recycle and to reduce waste.

Our mine decommissioning guidelines describe a complete set of directives, including technical practices and procedures to be followed during mine closures. The guidelines outline procedures for the rehabilitation and monitoring of degraded areas, the main steps and sequence to be followed during closure, and any liabilities that may result after mine closure. The guidelines also provide standardized basic criteria and procedures, based on the directives of the CVM and the SEC (FAS 143), for cost evaluation, the establishment of current budgets, future decommissioning and reclamation (see Note 3 to our consolidated financial statements).

The mines water and tailings storage dams and waste rock deposits are classified according to a risk matrix involving all the parameters related to construction, operation and safety monitoring. A comprehensive audit program has been established, which evaluates the stability of all those structures and provides the inputs for the development of corrective or preventative action plans when necessary.

Our environmental program also includes reclamation projects intended to (i) protect against soil erosion, (ii) create buffers between our activities and communities in surrounding areas, and (iii) maintain biodiversity through ecosystem restoration. We partner with universities and governmental research entities to conduct extensive research on methods for ecosystem protection. We regularly perform comprehensive fauna and flora investigations to minimize the environmental risks related to investing in potentially sensitive areas.

We participate in the conservation of Brazilian ecosystems by leaving land undeveloped and protecting certain private lands. We also participate in the conservation of lands located in federally-designated Conservation Units and develop

and support research on biodiversity. In the last three decades, we have also provided support to indigenous communities in the areas of education, health, infrastructure development and technical assistance with the aim of enhancing quality of life and self sufficiency in these communities.

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Subterraneous development. A suit challenging a new Brazilian environmental decree that permits mining in certain subterraneous areas may adversely affect our ability to conduct some mining operations.

Canada environmental regulation

Our operations in Canada are subject to numerous environmental laws and regulations relating to air emissions, water discharges, soils, recycling and waste management, decommissioning and reclamation, and employee health and safety, among other areas.

Sulfur dioxide (SO_2) and metals emissions reduction in Ontario. Our Sudbury smelting operations are subject to legislation of the Ontario government requiring Vale Inco to significantly reduce its emissions of sulfur dioxide. In 2008, total SO_2 emissions from our Sudbury operations were below the legislated limit of 175,000 metric tons. By 2015, the SO_2 annual emission limit will fall to the federal emission reduction target of 66,000 metric tons. Compliance with the federal emission reduction target will require significant capital expenditures.

A separate regulation, R419/05 Air Pollution Local Air Quality, was passed in November 2005. New air quality standards and compliance requirements, demonstrated by both measurement and air dispersion modeling, will be phased in between 2010 and 2020 for different industrial sectors. These standards will apply to Vale Inco in February 2010. Vale Inco completed its assessment and determined that the Copper Cliff Smelter Complex would not meet the compliance requirements for nickel dust emissions. In October 2008, we applied to the Ministry of Environment for an alternative standard for nickel at this facility for a five-year period, and we are awaiting formal feedback. There are provisions in the regulation for applications for extensions. In addition, there are provisions within the regulation for the Ministry to further review and reduce emission limits even further on a priority basis.

As part of the Atmospheric Emission Reduction Project, internally referred to as the AER, we are currently investigating the best available technologies and operating options to meet the lower 2015 SO_2 limit and the reduced metal ambient air concentration limits. The AER project team is staffed by the senior management of our Ontario operations. Compliance with both emission limits will require significant capital expenditures, estimates of which are included in our five-year capital plan.

Sulfur dioxide (SO_2) and particulate emissions reduction in Manitoba. Emissions from our Thompson smelting operations are also regulated under Manitoba legislation limiting SO_2 emissions to 23,000 metric tons per month (on a four-month rolling average) and 187,000 metric tons per calendar year. In 2008, emissions from our Thompson operations were within these limits.

In April 2006, the federal government, through Environment Canada, encouraged base metal smelters and refineries to voluntarily prepare Pollution Prevention Plans, addressing limit targets for SO_2 and particulate emissions. For Manitoba, the limit targets for 2015 are 22,800 metric tons for SO_2, 198 metric tons for particulate and a 90% reduction of the Canadian Environmental Protection Act (CEPA) toxic metals from the 1988 baseline. These target levels are lower than the current emission limits and we will not be able to meet these targets without making significant capital expenditures. Compliance with these targets could adversely affect our financial results and cash flow, particularly for our Thompson operations.

Sudbury and Port Colborne soils. We have been working with regulatory authorities and other interested parties to evaluate elevated levels of nickel and other metals in soils in the vicinity of our processing facilities in Sudbury and Port Colborne, Ontario that may be related to the historical emission of windblown metal-containing particulates. We voluntarily agreed to conduct detailed risk assessments in Port Colborne, and methodologies for soil remediation have been evaluated there. Any efforts we are required to undertake to investigate or remediate these matters may involve significant expenditures. Given the existence of various legal appeals and scientific and medical studies underway, it

is not possible to predict the effect these studies and actions could have on our business, results of operation or financial condition.

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Canadian regulations for greenhouse gases and air pollutants. In April 2007, the Canadian government announced the Regulatory Framework for Industrial Air Emissions, proposing intensity targets for greenhouse gases and regulated emission targets for certain air pollutants. Compliance with the greenhouse gas targets will require investment in our Canadian operations and/or the purchase of carbon allowances or offsets through a proposed Canadian Carbon Emissions Trading System. Compliance with the proposed regulatory targets for air pollutants are anticipated to be similar to the requirements in progress through the previously discussed Pollution Prevention Plan. However, at this stage in the legislative process, it is unclear whether additional operating or capital expenditures will be required to comply with enacted amendments or what effect these regulations will have on our business, financial results or cash flow from operations.

Canadian Environmental Protection Act. Pursuant to CEPA, in 2006 the federal government categorized approximately 23,000 chemical substances in terms of two criteria: (a) persistence, bioaccumulation, and inherent toxicity to the environment; and (b) high hazard to humans with a high likelihood of exposure to individuals in Canada. For substances that meet either or both criteria for categorization, screening or detailed assessments must be undertaken and, if deemed necessary, risk management measures may be required. In late 2006, the government began a study of 200 high-priority chemical substances. Cobalt and cobalt chloride are among these chemicals, and specific studies with respect to them could begin in early 2009. We cannot predict what impact the CEPA data challenge will have on our business, financial results or cash flow from operations; however, previous assessments on nickel compounds have had no material impact on our operations.

Sulfur dioxide (Canada and United States). In 2008, the American Conference of Governmental Industrial Hygienists (ACGIH) ratified a new threshold limit value for sulfur dioxide in the workplace. This new ACGIH value will be legally binding in the Province of Manitoba in 2009. The approach taken by the ACGIH in setting the new limit has deviated significantly from their past practices and focused solely on short term exposure. The new limit is effectively an order of magnitude lower than the previous limit and will represent a significant challenge for compliance. In the near term, workplace exposures will be managed with procedural improvements and with the use of personal protective equipment. The potential future impact of the new limit on our financial performance, including capital investment and compensation claims, is unclear at this time.

Permitting for new operations. In August 2008, Vale Inco Newfoundland & Labrador Limited was formally released from the need for further environmental assessments on its proposed hydrometallurgical commercial processing facility in Long Harbour. As of February 2009, the project is currently awaiting a permit for residue storage in Sandy Pond. This permit is required before construction of the facility can begin. It is anticipated that remaining technical issues will be resolved and that a permit will be granted in 2009.

Indonesia environmental regulation

PT Inco s operations are subject to environmental regulations and permits issued by the Indonesian government. PT Inco s environmental, health and safety policy includes a commitment to meet or exceed these requirements. In 2008, full compliance with stack particulate emission limits was achieved following the complete implementation of bag house filters on all furnaces in 2007, at a capital cost of US$62 million. The site remained in compliance in 2008 with regulations concerning suspended solids in runoff water and virtually all metals levels, including soluble nickel.

We are currently implementing an SO_2 mitigation feasibility study on alternatives to reduce stack SO_2 discharge levels so that compliance can be consistently achieved. This program, which has been approved by the Indonesian government, includes monitoring and engineering assessments of available mitigation technologies.

In September 2007, a new discharge regulation for nickel mining and processing activities was released by the Ministry of the Environment. This lowered the acceptable level of chromium 6 from 0.5 milligrams per liter to 0.1

milligrams per liter. A detailed engineering study was completed in 2008 to address this new

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regulation. The measures we are taking should be sufficient to ensure a high level of confidence regarding compliance with this new regulation.

Environmental performance at the site was recognized by the government in the form of a gold award for rehabilitation (for the second consecutive year), and an improved rating in the government s Program for Pollution Control, Evaluation, and Rating (PROPER).

New Caledonia environmental regulation

Our Goro project is subject to French and New Caledonian environmental regulations. Environmental baseline monitoring, particularly for the marine environment, continued in 2008. In preparation for the operation phase, a new tree nursery capable of producing over 260,000 seedlings was constructed and began operations in 2008. We expect to increase the nursery capacity to 1 million seedlings in 2013. In September 2008, we entered into a community agreement with respect to the Goro project. The agreement sets forth social and environmental goals. The authorities granted us operating permits in October 2008.

European regulation of hazardous substances

REACH. The European Commission has adopted a European Chemicals Policy, known as REACH (Registration, Evaluation, and Authorisation of Chemicals). REACH establishes a system for the management of chemicals that are manufactured in or imported into the EU. It is possible that our ability to sell certain of our products into Europe, particularly nickel products, will be adversely affected by the application of REACH to chemical substances associated with our products.

Under REACH, manufacturers and importers will be required to register new substances prior to their entry into the European market. There is a phase-in period for registering existing substances based on volume and hazard, provided that the substances were pre-registered within a six-month window during 2008. Except where specifically exempted from REACH registration, all existing substances manufactured in or imported into EU by us were pre-registered. In addition, the uses of certain substances deemed to be of very high concern, including some nickel and cobalt substances, will be subject to an authorization process. Details about how the authorization process will work in practice remain to be determined.

Comprehensive legislative review and risk assessment. EU Regulation 793/93 (EEC), a regulation covering the evaluation of the risks of and controls for existing substances, includes five nickel substances (nickel sulphate, nickel chloride, nickel nitrate, nickel carbonate and nickel metal) as targets. The Danish Environmental Protection Agency (the Danish EPA) was appointed the principal agency for conducting risk assessments on these substances. The final draft of the Human Health risk assessment was completed in early 2006 and the final draft of the Environmental Risk Assessment was completed in 2008. In 2009, it is expected that the final, combined risk assessment document will be published.

To date, the risk assessment documents have led to hazard classifications (or reclassifications) of approximately 145 nickel compounds in world commerce. At this time, due to other legislative changes in the EU, the legal enforceability of the hazard classifications is unclear. We are currently assessing compliance plans and business implications.

International environmental regulation

ISO and OHSAS certifications. Our environmental management system is based on the International Organization for Standardization (ISO) standard 14001. We have ISO 14001 certificates covering:

iron ore and pelletizing operations (Alegria, Timbopeba, Água Limpa, Fábrica Nova, Fazendão, Cauê, Conceição, Córrego do Feijão, Brucutu, Morro da Mina, Gongo Soco, Fábrica, Mutuca, Tamanduá, Capitão do Mato, Pico, Capão Xavier, Jangada, Aboboras, Mar Azul and Carajás mines and Fábrica and Tubarão pelletizing plants);

manganese and ferroalloys plants (Azul and Morro da Mina mines and Vale Manganèse France);

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nickel operations (Clydach Refinery, Vale Inco Japan Matsuzaka Plant, Jinco Nonferrous Metal, IATM Dalian, IATM Shenyang and Taiwan Nickel Refining Corporation);

precious metals operations (Acton Refinery);

port operations (Tubarão port and Itaguaí maritime terminal);

aluminum operations (Alunorte, Albrás and Valesul); and

kaolin production facilities (PPSA and CADAM).

Samarco and MRN are also certified under this standard. We also have obtained OHSAS 18001 certificates for the MBR system, Clydach refinery, Acton refinery, as well as the operations of our IATM Dalian & IATM Shenyang, Taiwan Nickel Refining Corporation (TNRC) and Jinco Nonferrous Metals Co. subsidiaries. TNRC is OHSAS 18001 certified.

Harmonization of classification and labeling of chemicals. The Globally Harmonized System (GHS) is a global hazard classification and compatible labeling system for chemicals published by the United Nations. Although adoption of the GHS standard by individual countries is voluntary, the Plan of Implementation of the World Summit on Sustainable Development encouraged countries to implement the GHS as soon as possible with a view to having the system fully operational by 2008.

Implementation has been fragmented and has taken longer than expected. Some countries, such as Japan, Korea, and Taiwan, have so far implemented the GHS for workplace hazard communication purposes only. In 2009, the International Maritime Organization and Europe will implement the GHS for transportation purposes. Most countries are in partial stages of implementation with a work plan to completely adopt the GHS standard over the next several years. We do not believe that the adoption of the GHS will have a material impact on the results of operations or on financial conditions; however, additional transportation requirements may be implemented for some materials under the GHS rules.

Investment Canada Act undertakings

We made a number of undertakings to the Canadian Minister of Industry in connection with his approval in 2006 of our acquisition of Vale Inco. We believe we are substantially in compliance with these undertakings, which are briefly described below.

Creation of a Canada-based global nickel business. We committed to locate the headquarters of our global nickel business in Toronto, Ontario and gave Vale Inco a mandate to expand its business as a global leader in the nickel industry. In furtherance of this mandate, we have transferred management responsibility for our interest in existing and future nickel projects to Vale Inco, including our interest in the Onça Puma and Vermelho projects in Brazil. We also undertook, for at least three years from the date of acquisition, not to carry out any layoffs at Vale Inco s Canadian operating facilities, and to maintain aggregate employment at such facilities at no less than 85% of the aggregate employment level as of the date on which the acquisition occurred.

Acceleration of Voisey s Bay development project. We undertook to fully support the Voisey s Bay development project.

Enhanced investments in Vale Inco s long-term future. To help strengthen Vale Inco s position as a leader in the global nickel mining business and contribute to ensuring the long-term viability of Vale Inco s operations in Sudbury and

Thompson, we undertook to increase Canadian expenditures in a number of areas, including mineral exploration and research and development, for a three-year period from the date of the acquisition.

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Corporate social responsibility. We undertook to increase spending on employee programs in Canada for a three-year period from the date of the acquisition. We also undertook to increase spending on environmental compliance programs in Canada over that same period.

Continuing contributions to communities. We undertook to maintain Vale Inco s involvement and commitment to the growth of Ontario s mining cluster, including its membership in the Mineral Industry Cluster Council. We agreed to respect all agreements entered into by Vale Inco with provincial governments, local governments, labor unions and aboriginal groups, including the Labrador Inuit Association and the Innu Nation, in Canada. We also undertook to honor all commitments made by Vale Inco with regard to the funding of educational institutions in Canada, including commitments made with respect to the Centre for Excellence in Mining Innovation at Laurentian University in Sudbury, Ontario.

Each of the undertakings made by us to the Canadian Minister of Industry is subject to the Investment Canada Act, Guidelines Administrative Procedures, Monitoring of Investments. Among other things, these guidelines state that performance is judged in the context of overall results and that an investor who is unable to fulfill a commitment will not be held accountable where such inability is a result of factors clearly beyond its control.

CAPITAL EXPENDITURES

During 2008, we made capital expenditures and other investments of US$10.319 billion, of which US$7.519 billion was on organic growth, composed of US$6.457 billion on projects and US$1.063 billion on research and development, while US$2.672 billion was invested in maintaining existing operations. Research and development expenditures are treated as a current expense for accounting purposes.

In October 2008, our Board of Directors approved an investment budget for 2009 of US$14.235 billion. We will implement the investment budget in accordance with market conditions. The amount of our investment will depend on various factors, including changes in exchange rates relative to our basic assumptions, prices of equipment and engineering services, the scope of projects and the pace of project execution. Of the total 2009 budget, 81.8%, or US$11.652 billion, is allocated to expenditures for organic growth. Of this amount, US$10.178 billion is budgeted for project execution, and US$1.473 billion is budgeted for research and development, of which US$736 million is allocated to mineral exploration. The remaining US$2.584 billion is budgeted for investments to support existing operations.

The following table summarizes by major business area the breakdown of our capital expenditures in 2007 and 2008 and our investment budget in 2009.

	2007		2008		2009 budget	
	(US$ million)	(% of total)	(US$ million)	(% of total)	(US$ million)	(% of total)
Ferrous minerals	US$ 1,748	15.9	US$ 2,171	21.0	US$ 4,179	29.4%
Non-ferrous minerals	3,988	36.2	4,614	44.7	4,785	33.6%
Logistics	977	8.9	1,952	18.9	3,027	21.3%
Coal	169	1.5	392	3.8	808	5.7%
Energy	165	1.5	406	3.9	822	5.8%
Steel	279	2.5	146	1.4	357	2.5%
Other	298	2.7	510	4.9	257	1.8%
Acquisitions	3,379	30.7	128	1.2		

Total	US$	11,004	100%	US$	10,319	100%	US$	14,235	100%

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The following table describes our expenditures for our main investment projects in 2008 and our budgeted expenditures for projects in 2009, together with estimated total expenditures for each project. All figures in the table are presented on a cash basis. For a description of the status of each of the projects in the table, see *Lines of business*.

		Actual	Budgeted	
Business area	**Project**	**2008**	**2009**	**Total capex(1)**
			(US$ million)	
Ferrous minerals and logistics	Carajás 130 mtpy iron ore mine	500	798	2,478
	Carajás - additional 10 mtpy iron ore mine	17	84	290
	Fazendão iron ore mine	79		233
	Serra Sul (mine S11D) iron ore mine	58	675	11,297
	Apolo iron ore mine	2	54	2,509
	Vargem Grande pelletizing plant	501	17	1,192
	Tubarão VIII pelletizing plant	82	527	636
	Oman pelletizing plant	77	458	1,356
	Northern Corridor	212		956
	Southeastern Corridor	205	163	553
	Litorânea Sul railroad		107	935
Non-ferrous minerals	Onça Puma nickel mine	985	597	2,297
	Goro nickel mine	1,063	520	4,083
	Totten nickel and copper mine	41	112	362
	Voisey s Bay nickel refinery	68	47	2,177
	Salobo copper mine	223	459	1,152
	Salobo expansion copper mine		39	855
	Tres Valles copper mine	34	56	102
	Bayovar phosphate mine	51	279	479
	Paragominas II bauxite mine	68		196
	Paragominas III bauxite mine		81	487
	Alunorte: stages 6 & 7 - alumina refinery	320		846
	CAP Alumina refinery	7	405	2,200
Coal	Moatize coal mine	143	444	1,322
	Carborough Downs coal mine	136	138	330
Energy	Barcarena thermal power plant	53	314	898
	Estreito hydroelectric power plant	159	149	514
	Karebbe hydroelectric power plant	60	119	410

(1) Estimated total capital expenditure cost for each project.

Item 4A. ***Unresolved staff comments***

None.

Item 5. ***Operating and financial review and prospects***

OVERVIEW

The year 2008 saw the end of a long period of growing demand and rising prices for minerals and metals that began in 2002. The acceleration of the global financial crisis since September 2008 precipitated a dramatic change in the pace of economic activity around the world. The ensuing heightened levels of uncertainty and retrenchment in the demand for minerals and metals resulted in a weaker operational and financial performance in the fourth quarter of 2008.

We have been very proactive in responding to the deterioration of the economic environment. Production cutbacks, involving primarily the shutdown of higher-cost operational units, and the implementation of new strategic priorities are the main components of our fast reaction to the global recession. Cost minimization, operational and financial flexibility and reconciliation of cash preservation with the pursuit of profitable growth options have assumed great importance to deal with the current scenario. Given powerful cash

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generation, large cash holdings and a low-risk debt portfolio, we are able to develop projects based on the merits of each growth opportunity and unconstrained by short-term cash restrictions.

Despite the sharp economic downturn in the fourth quarter, the year 2008 was our sixth consecutive year of record growth in revenues, operating income and net income. Our growth in 2008 reflected strong results for the first nine months of 2008 relative to the same period of 2007, which more than offset a weaker fourth quarter. Below are the main highlights of Vale s performance in 2008.

Record sales volumes of iron ore (264 million metric tons), nickel (276,000 metric tons), copper (320,000 metric tons), alumina (4.2 million metric tons), cobalt (3,087 metric tons), precious metals (2.4 million troy ounces), platinum group metals (411,000 troy ounces) and coal (4.1 million metric tons).

Gross operating revenue of US$38.5 billion, a 16.3% increase over 2007, mainly due to higher prices.

Net income of US$13.2 billion, or US$2.61 per share on a fully diluted basis. This was an 11.9% increase over 2007. The increase in net income was driven primarily by an 11.8% increase in operating income, reflecting a 16.1% increase in net operating revenue.

Net income for 2008 included a charge of US$950 million for impairment of goodwill we recorded upon the acquisition of Vale Inco.

The acceleration of the global financial crisis in the fourth quarter of 2008 resulted in weak demand for our iron ore and iron ore pellets and substantial price declines for non-ferrous minerals. In contrast to the significant gains in the first nine months of 2008, when net income was 28.1% higher than in the same period of 2007, net income in the fourth quarter of 2008 was 46.9% lower than in the fourth quarter of 2007. Net income in the fourth quarter of 2008 was 71.6% lower than in the third quarter of 2008, mainly due to the goodwill impairment charge recognized in the fourth quarter, which in turn reduced net income by 19.7% compared the third quarter of 2008.

In parts of the following discussion, we draw comparisons between the third and fourth quarters of 2008 to show the effects of the significantly different market conditions in the fourth quarter.

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Demand and prices

The following table sets forth our average realized prices for our principal products for each of the periods indicated.

	Year ended December 31,			Three months ended
	2006	2007	2008	December 31, 2008
	(US$ per metric ton, except where indicated)			
Iron ore	40.00	45.33	67.32	73.92
Iron ore pellets	75.21	78.62	131.76	145.25
Manganese	70.60	107.34	350.46	393.44
Ferroalloys	886.97	1,311.48	2,709.60	2,603.77
Nickel	31,981.53	37,442.28	21,662.14	11,926.62
Copper	6,380.84	6,611.27	6,331.07	3,041.35
Kaolin	164.78	195.88	194.06	185.95
Potash	195.09	264.09	591.18	676.47
Platinum (US$/oz)	1,115.59	1,314.25	1,557.07	865.27
Cobalt (US$/lb)	14.93	24.56	31.01	19.68
Aluminum	2,558.76	2,784.70	2,805.86	2,470.15
Alumina	343.99	338.76	348.42	321.59
Bauxite	30.46	36.08	41.47	41.67
Coal:				
Thermal coal		53.73	85.38	93.32
Metallurgical coal		67.37	170.55	256.25

Iron ore and iron ore pellets

Demand for our iron ore and iron ore pellets is a function of global demand for carbon steel. Demand for carbon steel, in turn, is strongly influenced by global industrial production.

In general, our iron ore sales are made pursuant to long-term supply contracts, which provide for annual price adjustments. Iron ore and iron ore pellets are not priced like commodities because of the wide array of quality levels and physical characteristics. Various factors influence price differences among the various types of iron ore, such as the iron content of specific ore deposits, the various beneficiation and purifying processes required to produce the desired final product, particle size, moisture content, and the type and concentration of contaminants (such as phosphorus, alumina and manganese ore) in the ore. Fines, lump ore and pellets typically command different prices.

Our 2008 reference prices for iron ore fines increased by 65%, and prices for our iron ore pellets were 86.67% higher than in 2007. Carajás iron ore fines were priced at a premium of US$0.0619 per dry metric ton Fe unit over the 2008 reference price for fines from the Southeastern and Southern Systems. In 2008, demand for iron ore and iron ore pellets exceeded our production capacity in the first nine months of the year, but it declined in the fourth quarter, when global steel production contracted 19.5% compared to the prior quarter.

The global financial crisis has had a strong negative impact on our markets for iron ore and iron ore pellets. Following 10 years of substantial increases in both Chinese steel production and imports of iron ore, Chinese economic growth decelerated sharply in the fourth quarter of 2008, as a result of a tightening domestic credit market and slowing exports. The contraction of China s credit market has significantly impeded growth in the Chinese real estate sector, one of the largest consumers of steel in the country. Although the Chinese government has been increasing

expenditures on infrastructure and public housing, launching tax incentives, and taking measures to ease credit tightness, there is uncertainty about the extent and duration of the current economic downturn. Furthermore, the European economy may recover more slowly than other regions, which would negatively affect the volume of our shipments of iron ore and iron ore pellets to this region.

Notwithstanding its severity, we believe the global cyclical downturn will not disrupt long-term economic development of emerging market economies and structural changes over the last years that have caused a

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rapid expansion in the demand for minerals and metals, especially iron ore. In addition, China, the world s largest steel producer, has been increasingly dependent on imported iron ore, and we expect this trend to continue in the foreseeable future.

Manganese and ferroalloys

The prices of manganese ore and ferroalloys are influenced by trends in the carbon steel market. Ferroalloy prices are also influenced by the prices of the main production inputs, such as manganese ore, power and coke. Price negotiations for manganese ore are held mainly on a spot or quarterly basis. Ferroalloy prices are settled on a quarterly basis.

In 2008, our average realized price for manganese ore was 226.5% higher than in 2007. After peaking mid-year, manganese prices dropped in the fourth quarter of 2008 due to weakening demand. In 2008, our average realized price for ferroalloys was 106.4% lower than in 2007.

Nickel

Prices for our nickel products generally reflect prices at the LME, the principal terminal market for primary nickel in the world. Our nickel price realizations tend to lag LME cash nickel price movements, due primarily to the terms of our contractual sales arrangements with certain customers. Given our high product quality, we typically realize a premium over prevailing LME cash prices for our finished nickel products.

Demand for nickel, which is mainly used to produce stainless steel, is strongly affected by stainless steel production. In 2008, demand for nickel for stainless steel production was weak, and rising nickel inventories kept prices under pressure. Nickel demand for sources of consumption other than stainless steel production, which represents approximately 40% of global nickel consumption, declined in the second half of 2008. The average LME spot price of nickel in 2008 dropped 43.4% relative to 2007, to US$21,027 per metric ton. In the fourth quarter of 2008, the LME spot price of nickel declined 42.6% compared to the third quarter of 2008, to US$10,885. Stainless steel production declined 8% from 2007 levels, due to inventory de-stocking and the global demand contraction. Production fell 2% in the first half of 2008 compared to the same period of 2007, then declined 13% in the second half of 2008 compared to the same period of 2007.

Primary nickel (including ferro-nickel, nickel pig iron and nickel cathode) and secondary nickel (i.e. scrap) are competing nickel sources for stainless steel production. The choice between different types of primary and secondary nickel is largely driven by their relative prices and availability. In 2008, the stainless steel scrap ratio is estimated to have remained relatively unchanged compared to 2007, at 49%. Nickel pig iron production is estimated to have declined approximately 17% in 2008 relative to 2007, given depressed primary nickel prices and high production costs for nickel pig iron. In 2008, nickel pig iron represented approximately 5% of the global supply of primary nickel, compared to 6% in 2007.

Despite the cyclical dynamics of the stainless steel industry, we continue to have a positive long-term outlook for nickel. At the end of 2008 and in early 2009, stainless steel production remained weak in the United States, Europe and Japan, although there were some signs of improvement in China. Per capita consumption of stainless steel in high-growth emerging market economies is still low, and strong growth potential remains for nickel demand from non-stainless steel applications.

Aluminum

Our sales of aluminum are made at prices based on prices on the LME or the New York Mercantile Exchange (NYMEX) at the time of delivery. Our prices for bauxite and alumina are determined by a formula linked to the price of aluminum for three-month futures contracts on the LME and to the price of alumina FOB Australia.

In 2008, demand and prices for aluminum declined as a result of the global economic downturn. The average LME spot price of aluminum declined 3.2% in 2008 relative to 2007, to US$2,554 per metric ton. In

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the fourth quarter of 2008, the average LME spot price of aluminum declined 35.5% compared to the third quarter of 2008.

Copper

Growth in copper demand in recent years has been driven primarily by Chinese imports. Copper prices are determined on the basis of (i) prices of copper metal on terminal markets, such as the LME and the NYMEX, and (ii) in the case of intermediate products such as copper concentrate and copper anode (which comprise most of our sales), treatment and refining charges negotiated with each customer. Under a pricing system referred to as MAMA (month after month of arrival), sales of copper concentrates and anodes are provisionally priced at the time of shipment, and final prices are settled on the basis of the LME price for a future period, generally one to three months after the shipment date.

In 2008, the copper market was negatively affected by the global economic slowdown. World average copper prices on the LME dropped 5.1% in 2008 compared to 2007. In the fourth quarter of 2008, the LME spot price of copper declined 52.8% compared to the third quarter of 2008. In the medium term, however, we expect copper supply to remain limited. Existing copper mines are subject to a natural decline in grade, and a meaningful increases in global mine capacity is unlikely, given the absence of any significant project in an advanced development stage.

Coal

Demand for metallurgical coal is driven by demand for steel, especially in Asia. Demand for thermal coal is closely related to electricity consumption, which will continue to be driven by global economic growth, particularly from emerging markets economies.

Price negotiations for metallurgical coal are mainly held on an annual basis. Price negotiations for thermal coal are held both on a spot and annual basis.

Coal prices have increased in the past several years, but we expect current economic conditions to revert this trend in the short- to medium-term. In 2008, the average sale price of metallurgical coal was 153.2% higher than in 2007, at US$170.55 per metric ton. The average sale price of thermal coal was 58.9% higher than in 2007, at US$85.38 per metric ton.

Logistics

Demand for our transportation services in Brazil is primarily driven by Brazilian economic growth, mainly in the agricultural and steel sectors. Cargo volumes declined in 2008 due to a reduction in the transportation of agricultural products, particularly grains, as a result of weaker Brazilian exports during the year. Our logistics businesses were also negatively affected by the reduction of Brazilian steel output and pig iron exports in the fourth quarter of 2008.

We earn our logistics revenues primarily from fees charged to customers for the transportation of cargo via our railroads, port and ships. Our railways generate most of these revenues. Nearly all of our logistics revenues are denominated in *reais* and subject to adjustments for 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.

Production capacity

Capacity expansions are a key factor affecting our revenues. We continue to invest in increasing capacity in several facilities, but we are managing expansion projects in accordance with ongoing assessments of market conditions. The

following expansion projects started production in 2008.

In our iron ore business, Fazendão started up in the first quarter of 2008, with annual production capacity of 15.8 million metric tons of run-of-mine.

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In our nickel business, we completed the Dalian nickel processing plant in 2008. Dalian, located in China, began operations in April 2008 and has annual production capacity of 35,000 metric tons of finished nickel.

In our aluminum business, we completed in the first half of 2008 the first expansion of Paragominas (Paragominas II), from 5.4 to 9.9 million metric tons per year. We also completed the construction of stages 6 and 7 at our Alunorte alumina facility in Brazil, which started operating in the second half of 2008, adding 1.9 million metric tons to its nominal production capacity.

See *Item 4. Information on the company Capital expenditures* for more information about expansion projects currently underway.

Currency price changes

Our results of operations are affected in several ways by changes in currency exchange rates. The most important of these are the following:

Most of our revenues are denominated in U.S. dollars, while most of our costs of goods sold are denominated in other currencies, principally the *real* (62% in 2008) and the Canadian dollar (20% in 2008). As a result, changes in exchange rates affect our operating margins. Our margins are adversely affected by a decline in the value of the U.S. dollar. We experienced this effect on margins for several years until the middle of 2008.

Most of our long-term debt is denominated in currencies other than the *real*, principally the U.S. dollar (US$13,267 million at December 31, 2008). Because our functional currency for accounting purposes is the *real*, changes in the value of the U.S. dollar against the *real* result in exchange gain or loss on our net liabilities in our financial results. In the second half of 2008, our higher average cash holdings in U.S. dollars helped offset the negative effect of exchange rate variation on our U.S. dollar denominated liabilities.

We had *real*-denominated debt of US$4,590 million at December 31, 2008. Since most of our revenue is in U.S. dollars, we use derivatives to convert our debt service from *reais* to U.S. dollars. Changes in the value of the U.S. dollar against the *real* result in fair value variation on these derivatives, affecting our financial results. For more information on our use of derivatives, see *Item 11. Quantitative and qualitative disclosures about market risk*.

A decline in the value of the U.S. dollar tends to result in: (i) lower operating margins and (ii) higher financial results due to exchange gains on our net U.S. dollar denominated liabilities and fair value gains on our currency derivatives. Conversely, an increase in the value of the U.S. dollar tends to result in: (i) better operating margins and (ii) lower financial results, due to exchange losses on our net U.S. dollar denominated liabilities and fair value losses on our currency derivatives.

The U.S. dollar was weak against the *real* and the Canadian dollar during the first half of 2008 but began to appreciate significantly in the third quarter of the year. At December 31, 2008, the U.S. dollar had appreciated 31.9% against the *real* and 24.5% against the Canadian dollar relative to December 31, 2007. These currency price changes had the following impacts on our financial results.

Operating margins. During the first half of 2008, the weakness of the U.S. dollar had an adverse effect on our operating margins. However, in the second half of the year, the appreciation of the U.S. dollar against the *real* and the Canadian dollar contributed to cost reductions, which materialized mostly in the fourth

quarter of 2008. These mitigated the adverse effects of the economic crisis on our margins.

Exchange gains (losses). We recorded net exchange gains of US$364 million in 2008, and losses of US$241 million in the fourth quarter.

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Gains (losses) on derivatives. We recorded net fair value losses on derivatives of US$812 million in 2008, including US$586 million in the fourth quarter. These losses were primarily on cross-currency swap positions that convert our *real*-denominated debt expense into U.S. dollars. The U.S. dollar value of our *real*-denominated debt decreased to US$4.7 billion as of December 31, 2008, from US$5.4 billion as of September 30, 2008.

Operating expenses

Our principal operating expenses consist of: (i) cost of goods sold, (ii) selling, general and administrative expenses and (iii) research and development expenses.

Cost of goods sold. Our cost of goods sold consists of costs of energy (fuel and electric energy), materials (such as components for railroad and mining equipment), outsourced services (especially ore and waste removal, transportation and maintenance), purchased products for processing or resale (such as iron ore, iron ore pellets, nickel and aluminum products), personnel, and depreciation and depletion.

Selling, general and administrative expenses. Our selling, general and administrative expenses consist principally of personnel expense, sales expense and depreciation.

Research and development expenses. Our research and development expenses consist primarily of investments related to mineral exploration and studies for the development of projects, which are recorded as expenses until the economic viability of the related mining activities is established.

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RESULTS OF OPERATIONS 2008 COMPARED TO 2007

Revenues

Our gross operating revenues rose to US$38.509 billion in 2008, a 16.3% increase over 2007. Our net operating revenues increased 16.1% to US$37.426 billion in 2008. The following table summarizes our gross revenues by product and our net operating revenues for the periods indicated.

	Year ended December 31,		
	2007	2008	% change
	(US$ million)		
Ferrous minerals:			
Iron ore	US $ 11,908	US $ 17,775	49.3%
Iron ore pellets	2,738	4,301	57.1
Manganese	77	266	245.5
Ferroalloys	711	1,211	70.3
Pig iron	81	146	80.2
Subtotal	15,515	23,699	52.7
Non-ferrous minerals:			
Nickel and other products(1)	11,789	7,829	(33.6)
Potash	178	295	65.7
Kaolin	238	209	(12.2)
Copper concentrate(2)	802	893	11.3
Aluminum	2,722	3,042	11.8
Subtotal	15,729	12,268	(22.0)
Total minerals and metals	31,244	35,967	15.1
Logistic services	1,525	1,607	5.4
Other products and services(3)	346	935	170.2
Gross revenues	33,115	38,509	16.3
Value-added tax	(873)	(1,083)	24.1
Net operating revenues	US $ 32,242	US $ 37,426	16.1%

(1) Includes copper, precious metals, cobalt and other by-products produced by Vale Inco.

(2) Does not include copper produced by Vale Inco.

(3) Includes coal.

Iron ore. Gross revenues from iron ore increased by 49.3% due primarily to higher prices. The increase in average selling prices resulted mostly from a 65.0% increase in 2008 reference prices for iron ore fines, effective as of April 2008 for the majority of our customers. Sales volume increased slightly year-on-year. In the fourth quarter of 2008, our sales volume decreased by 37.9% compared to third quarter 2008, due to the impact of the global macroeconomic conditions.

Iron ore pellets. Gross revenues from iron ore pellets increased by 57.1% due to 67.6% higher average sales prices, which more than offset a 4.3% reduction in sales volume. The higher realized prices resulted from an 86.7% increase in 2008 reference prices for blast furnace and direct reduction pellets. However, fourth quarter sales volume decreased by 20.9% compared to third quarter 2008, due to lower global demand for iron ore pellets.

Manganese ore. Gross revenues from manganese ore increased by 245.5% due primarily to higher prices. However, the deterioration of market conditions in the fourth quarter of 2008 had a negative impact on volumes sold, which decreased by 75.7% compared to the third quarter of 2008.

Ferroalloys. Gross revenues from ferroalloys increased by 70.3% due to a substantial increase in average selling prices, which was partially offset by an 18.9% decrease in volume sold. The decline in volume is primarily attributable to the shut-down of our ferroalloy operations in Dunkerque, France, since August 2008

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due to problems with the electric furnace. During the fourth quarter of 2008, sales volume decreased by 44.2% compared to the third quarter of 2008, as a result of a decline in demand.

Nickel and other products. Gross revenues from this segment decreased by 33.6%, mainly due to the following factors.

Gross revenues from nickel sales decreased 40.6%, from US$10.043 billion in 2007 to US$5.970 billion in 2008, due to a 42.1% decline in average nickel prices. In the fourth quarter of 2008, the average nickel sales price declined by 39.4% compared to third quarter 2008. Nickel sales volume in the fourth quarter of 2008 remained in line with volumes sold in the third quarter of 2008.

Gross revenues from copper sales decreased by 4.0%, from US$1.183 billion in 2007 to US$1.136 billion in 2008, due to a 4.2% drop in the average sales price. In the fourth quarter of 2008, the average copper sales price declined by 54.2% compared to the third quarter of 2008. Copper sales volume in the fourth quarter of 2008 remained in line with volumes sold in the third quarter of 2008.

Gross revenues from sales of precious metals and other products increased 19.9%, from US$427 million in 2007 to US$512 million in 2008.

Potash. Gross revenues from sales of potash increased by 65.7%. The increase was due to a 123.9% increase in average selling prices, which was partially offset by a 26.0% decline in sales volume compared to the prior year. Volumes sold in the fourth quarter of 2008 were 73.0% lower than in the third quarter of 2008, as a result of the weak performance of the Brazilian agricultural sector and the accumulation of large inventories by farmers in anticipation of higher fertilizer prices.

Kaolin. Gross revenues from sales of kaolin decreased by 12.2%, due principally to an 11.4% decrease in volume.

Copper concentrate. Gross revenues from sales of copper concentrate increased by 11.3% due to an 8.1% increase in sales volumes and a 3.0% increase in the average sales price.

Aluminum. Gross revenues from our aluminum business increased by 11.8%. This increase is attributable to the following factors.

Gross revenues from sales of aluminum decreased 1.6%, from US$1.570 billion in 2007 to US$1.545 billion in 2008, due to lower volume sold. Since there is a one-month lag between aluminum market prices and sales prices, our average aluminum sales price in the fourth quarter of 2008 did not fully reflect the drop in aluminum market prices.

Gross revenues from sales of alumina increased 33.4%, from US$1.470 billion in 2008 compared to US$1.102 billion in 2007, due to higher volumes sold in connection with the Alunorte expansion.

Gross revenues from sales of bauxite decreased 44.9%, from US$49 million in 2007 to US$27 million in 2008, due to a reduction in sales volume caused by increased usage of bauxite at our alumina refinery.

Logistics services. Gross revenues from logistics services increased by 5.4%. The increase reflects higher prices caused by the increase in fuel costs and changes in the mix of cargo, which more than offset the slight reduction in volume of freight cargo.

Revenues from railroad transportation increased by 6.8%, from US$1.220 billion in 2007 to US$1.303 billion in 2008. Average prices increased by 13.0%, and volume shipped decreased by 5.5%. The decline in volumes of general cargo resulted from the reduction in transportation of agricultural products, mainly grains, as a consequence of weaker Brazilian exports during 2008. The

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reduction of Brazilian steel output and pig iron exports in the fourth quarter of 2008 also contributed to reduced levels of activity in our logistics business.

Revenues from port operations increased by 13.9%, from US$267 million in 2007 to US$304 million in 2008.

We had no revenues from shipping in 2008, compared to US$38 million in 2007, due to the sale of our controlling interest in Log-In in 2007 as a result of which Log-In is no longer consolidated in our results.

Other products and services. Gross revenues from other products and services increased from US$346 million in 2007 to US$935 million in 2008, primarily reflecting increased sales of coal. Revenues from sales of metallurgical coal were US$457 million in 2008, compared to US$128 million in 2007. Revenues from sales of thermal coal were US$120 million in 2008, compared to US$32 million in 2007. Increased coal sales were driven by two factors: (i) a full year of consolidation of Vale Australia in 2008, compared to eight months of consolidation in 2007; and (ii) the increase in average coal prices in 2008 compared to 2007.

Operating costs and expenses

	Year ended December 31,		
	2007	2008	% change
	(US$ million)		
Cost of ores and metals	US$ 13,628	US$ 14,055	3.1%
Cost of logistic services	853	930	9.0
Cost of aluminum products	1,705	2,267	33.0
Others	277	389	40.4
Cost of goods sold	16,463	17,641	7.2
Selling, general and administrative expenses	1,245	1,748	40.4
Research and development	733	1,085	48.0
Impairment of goodwill		950	
Other costs and expenses	607	1,254	106.6
Total operating costs and expenses	US$ 19,048	US$ 22,678	19.1%

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Cost of goods sold

The following table summarizes the components of our cost of goods sold for the periods indicated.

	Year ended December 31,		
	2007	2008	% change
	(US$ million)		
Outsourced services	US$ 2,628	US$ 2,880	9.6%
Materials costs	2,313	2,900	25.4
Energy:			
Fuel	1,406	1,842	31.0
Electric energy	878	1,078	22.8
Subtotal	2,284	2,920	27.8
Acquisition of iron ore and pellets	976	1,179	20.8
Acquisition of other products:			
Nickel	1,522	687	(54.9)
Aluminum	288	317	10.1
Other	86	31	(64.0)
Subtotal	2,872	2,214	(22.9)
Personnel	1,873	2,139	14.2
Depreciation and depletion	2,049	2,664	30.0
Inventory adjustment	1,062		
Others	1,382	1,924	39.2
Total	US$ 16,463	US$ 17,641	7.2%

Our total cost of goods sold increased 7.2% from 2007 to 2008. This increase resulted primarily from the factors described below.

Depreciation of the U.S. dollar. Given most of our costs and expenses are denominated in currencies other than the U.S. dollar, the depreciation of the U.S. dollar during 2008 led to higher costs in 2008. COGS currency exposure in 2008 was made up as follows: 62% in Brazilian *reais*, 20% in Canadian dollars, 14% in U.S. dollars, 2% in Indonesian rupiah and 2% in other currencies.

Outsourced services. Outsourced services costs increased by 9.6% in 2008 due to higher sales volumes, the depreciation of the U.S. dollar against the *real*, higher prices of services and maintenance costs. During the fourth quarter, lower sales volumes and the appreciation of the U.S. dollar contributed to reduce costs by 28.6% against the third quarter of 2008.

Material costs. Material costs increased by 25.4% in 2008, primarily reflecting higher sales volumes and higher costs for the maintenance of equipment. In the fourth quarter of 2008, material costs dropped 24.8% compared to the third quarter of 2008, due to an overall reduction in volumes and the average U.S. dollar appreciation against the *real*.

Energy costs. Energy costs increased by 27.8% in 2008. This increase primarily reflected higher energy prices, higher consumption due to the leasing of the pelletizing operations from our joint ventures, and the depreciation of the U.S. dollar. In the fourth quarter, the overall reduction in volumes and the average U.S. dollar appreciation against the *real* led to a 31.2% reduction compared to the third quarter of 2008.

Personnel costs. Personnel costs increased by 14.2%, mainly reflecting the depreciation of the U.S. dollar against the *real* and the impact of wage increases pursuant to a two-year agreement with our Brazilian employees entered into in November 2007. During the fourth quarter, the overall reduction in volumes and the appreciation of the U.S. dollar against the *real* contributed to a 12.9% decline in costs compared to the third quarter of 2008.

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Acquisition of iron ore and iron ore pellets. The cost of iron ore and iron ore pellets purchased from third parties increased 20.8%, mainly due to higher benchmark prices. We purchased 11.9 million metric tons of iron ore from third parties in 2008 compared to 8.3 million metric tons in 2007, a 43.4% increase. This was partly offset by a decrease in the volume of pellets purchased from third parties, from 11.7 million metric tons in 2007 to 5.9 million metric tons in 2008, as a result of the leasing of the pelletizing plants from our joint ventures.

Other costs. The increase of US$542 million was mainly due to the operating lease agreements signed during 2008 with our joint ventures Nibrasco, Itabrasco and Kobrasco, under which we leased four pelletizing plants for a period from five to 30 years.

The increase in total cost of good sold was partially offset by the following factors.

Acquisition of products, which includes nickel concentrates for processing under tolling contracts, intermediary products and finished nickel, totaled US$2,214 million in 2008 compared to US$2,872 million in 2007, as a result of lower prices and volumes.

We recognized additional cost of goods sold in 2007, in the amount of US$1.062 billion, because of the adjustment of inventory resulting from the acquisition of Vale Inco.

Selling, general and administrative expenses

Selling, general and administrative expenses increased by 40.4%, or US$503 million. The increase was mainly attributable to an adjustment related to copper sales and to higher expenses related to global integration of IT infrastructure advertising and brand management. The adjustment for copper sales arose from the effects of sharply declining copper prices under the MAMA pricing system. In the fourth quarter of 2008, copper prices declined 48.8% compared to the third quarter of 2008, causing final prices for copper sales be much lower than the previously set provisional prices. The difference was accounted for as an adjustment of US$316 million.

Research and development expenses

Research and development expenses increased by 48.0%. The US$352 million increase primarily reflects an increase in mineral exploration and project studies in several regions, including South America, Asia, Africa and Australia.

Impairment of goodwill

In 2008, we recognized a US$950 million impairment of the goodwill associated with our 2006 acquisition of Vale Inco, of which US$1.336 billion remains. For a full description of the impairment test, see Note 13 of our financial statements herein.

Other costs and expenses

Other costs and expenses increased by US$647 million as a consequence of non-recurring events, as follows: US$204 million due to an additional payment related to tax assessments on third-party railroad transportation services by our iron ore operations in previous years, US$199 million relating to provision for loss on materials and US$77 million of market value assessment of nickel inventories.

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Operating income by segment

The following table provides information concerning our operating income by segment and as a percentage of revenues for the periods indicated.

	Year ended December 31,					
	2007			2008		
	Segment operating income (loss)			Segment operating income (loss)		
	(US$ million)		(% of net operating revenues)	(US$ million)		(% of net operating revenues)
Ferrous minerals:						
Iron ore	US$	6,325	54.4%	US$	9,988	57.4%
Pellets		659	25.3		1,606	39.1
Manganese ore		(9)			169	67.3
Ferroalloys		182	28.0		604	55.8
Pig iron		19	23.5		76	52.1
Non-ferrous minerals:						
Nickel and other products		4,785	40.6		1,131	14.5
Potash		37	22.0		140	50.2
Kaolin		(32)			(45)	
Copper concentrate		252	32.6		111	12.7
Aluminum products		828	31.2		516	17.3
Logistics:						
Railroads		297	29.1		246	22.4
Ports		22	10.0		41	15.5
Ships		(12)				
Others		(159)			165	18.3
Total	US$	13,194	40.9%	US$	14,748	39.4%

Our operating income decreased as a percentage of net operating revenues, from 40.9% in 2007 to 39.4% in 2008, due to the impairment charge in the nickel segment. In the fourth quarter of 2008, operating margin was 14.7%, compared to 47.2% in the third quarter of 2008, due to lower shipment volumes and prices. Our ferrous minerals business was responsible for 93.6% of our cash generation in the fourth quarter of 2008, compared to 79.9% in the third quarter.

This comparison reflects the effect of margin reductions in nickel, copper concentrate, aluminum products and railroads, counterbalanced by higher margins in iron ore, iron ore pellets, manganese ore, ferroalloys, potash and ports.

The increase in operating margin for iron ore and iron ore pellets primarily reflects higher average selling prices, which were partially offset by (i) the impact of the appreciation of the *real* against the U.S. dollar on our operating costs and expenses and (ii) higher research and development expenditures.

The significant increase in operating margins for manganese and ferroalloys is attributable to higher prices, reflecting market tightness during most of 2008.

The increase in operating margin for potash is attributable to higher prices, which offset the decrease in volumes during the fourth quarter of the year.

The decrease in operating margin for nickel and other products primarily reflects (i) the decline in average selling prices and (ii) the goodwill impairment in 2008.

The margin declines in the aluminum products segment resulted primarily from higher energy costs and higher freight costs. The higher freight costs are due to an increase in the volume of bauxite transported from the Trombetas bauxite mine, which belongs to MRN.

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Non-operating income (expenses)

The following table details our net non-operating income (expenses) for the periods indicated.

	Year ended December 31,	
	2007	2008
	(US$ million)	
Financial income	US$ 295	US$ 602
Financial expenses	(2,517)	(1,765)
Gains (losses) on derivatives, net	931	(812)
Foreign exchange and monetary gains, net	2,553	364
Gain on sale of investments	777	80
Non-operating income (expenses)	US$ 2,039	US$ (1,531)

We had net non-operating expenses of US$1.531 billion in 2008, compared to net non-operating revenues of US$2.039 billion in 2007. This change primarily reflects the following factors.

An increase in financial income, principally due to higher average cash balances, resulting from our global equity offer.

A decrease in financial expenses, mainly due to lower average total debt.

A US$812 million loss in 2008, compared to a US$931 million gain in 2007, principally related to a swap of *real*-denominated debt into U.S. dollars. The transaction generated a gain of US$791 million in 2007 and a loss of US$833 million in 2008 due to the exchange rate variation.

Lower foreign exchange gains due to the depreciation of the U.S. dollar. Despite the appreciation of the U.S. dollar against our functional currency, the *real*, in the second half of the year, the larger average cash holdings in U.S. dollar softened the negative effect of the foreign exchange variation in our U.S. dollar-denominated liabilities.

A US$80 million gain on sales of investments in 2008 from the sale of our interest in Jubilee Mines, compared to a US$777 million gain in 2007 from our sales of interests in Usiminas (US$456 million gain), Log-In (US$238 million gain) and Lion Ore Mining (US$80 million gain).

Income taxes

For 2008, we recorded net income tax expense of US$535 million, compared to US$3.201 billion in 2007. Our effective tax rate has historically been lower than the Brazilian statutory rate because: (i) income of some non-Brazilian subsidiaries is subject to lower rates of tax; (ii) we are entitled under Brazilian law to deduct the amount of our distributions to shareholders that we classify as interest on shareholders equity; and (iii) we benefit from tax incentives applicable to our earnings on production in certain regions of Brazil. As a result, the effective tax rate on our pretax income was 4.0% in 2008 and 21% in 2007. In addition, the effective tax rate on our pre-tax income decreased from 21% to 4% in 2008 as a result of the accounting effects of foreign exchange variation, which are not taxable.

Affiliates and joint ventures

Our equity in the results of affiliates and joint ventures resulted in a gain of US$794 million in 2008, compared to a gain of US$595 million in 2007. The increase was primarily due to higher net income at our investee Samarco, where a new plant began operations in 2008. Note 12 to our financial statements herein summarizes our equity in the results of affiliates and joint ventures.

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RESULTS OF OPERATIONS 2007 COMPARED TO 2006

Revenues

Our gross operating revenues rose to US$33.115 billion in 2007, a 62.6% increase over 2006. Our net operating revenues increased 64.1% to US$32.242 billion in 2007. The following table summarizes our gross revenues by product and our net operating revenues for the periods indicated:

	Year ended December 31,		
	2006	2007	% change
	(US$ million)		
Ferrous minerals:			
Iron ore	US$ 10,027	US$ 11,908	18.8%
Iron ore pellets	1,979	2,738	38.4
Manganese	55	77	40.0
Ferroalloys	508	711	40.0
Subtotal	12,569	15,434	22.8
Non-ferrous minerals:			
Nickel and other products(1)	2,802	11,789	320.7
Potash	143	178	24.5
Kaolin	218	238	9.2
Copper concentrate(2)	779	802	3.0
Subtotal	3,942	13,007	230.0
Aluminum	2,381	2,722	14.3
Total minerals and metals	16,511	28,441	72.3
Logistic services	1,376	1,525	10.8
Other products and services(3)	95	427	349.5
Gross revenues	20,363	33,115	62.6
Value-added tax	(712)	(873)	22.6
Net operating revenues	US$ 19,651	US$ 32,242	64.1%

(1) Includes copper, precious metals, cobalt and other by-products produced by Vale Inco.

(2) Does not include copper produced by Vale Inco.

(3) Including coal.

Iron ore. Gross revenues from iron ore increased by 18.8%, driven primarily by a 13.3% increase in average selling prices and a 4.8% increase in the volume of iron ore sold. The price increases resulted from a 9.5% increase in 2007 reference prices for iron ore fines, effective as of April 2007 for the majority of our customers, and a 19% increase in

2006 reference prices for iron ore fines, effective as of April 2006 for the majority of our customers. The increase in volumes sold was made possible by the expansion of production capacity at our Carajás mine in January 2007 and the ramp-up of our Brucutu mine. These production increases more than offset the negative impact of heavy rain during the first quarter, which slowed production in the mines and caused rail transportation disruptions in the Southeastern System.

Iron ore pellets. Gross revenues from iron ore pellets increased by 38.4% in 2007. Total volumes sold in 2007 were 32.8% higher than in 2006, primarily reflecting the commencement of operations at São Luís after a temporary shutdown in 2006. The 4.5% average price increase resulted from a 5.28% increase in 2007 reference prices for blast furnace and direct reduction pellets, effective as of April 2007 for the majority of our customers, and a 3% reduction in 2006 reference prices blast furnace and direct reduction pellets, effective as of April 2006 for the majority of our customers.

Manganese ore. Gross revenues from manganese ore increased by 40%, reflecting a 52% increase in average selling prices and 9.1% decrease in volume. The decrease in volume was due to a temporary shutdown of our Azul mine from July to December 2007 in order to allow the rail lines that serve to transport our iron ore.

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Ferroalloys. Gross revenues from ferroalloys increased by 40.0% due to a 47.9% increase in average selling prices, which was partially offset by a 6.5% decrease in volume largely as a result of furnace repairs at our plant in France.

Nickel and other products. In 2007, revenues from nickel and other products were US$11.789 billion, compared to US$2.802 billion in 2006, when we consolidated Vale Inco for only the last quarter of the year.

Potash. Gross revenues from sales of potash increased by 24.5%, driven by a 35.4% increase in average selling prices and an 8% decline in volume, reflecting problems with mining equipment in the first half of 2007 and lower grade of potash we mined.

Kaolin. Gross revenues from sales of kaolin increased by 9.2%, due principally to a 18.9% increase in average selling prices. Volume decreased by 8.2% due to problems with machinery.

Copper concentrate. Gross revenues from sales of copper concentrate increased by 3%, from US$779 million in 2006 to US$802 million in 2007, due to a 4.7% increase in average selling prices.

Aluminum. Gross revenues from aluminum business increased by 14.3%. This reflected the following factors:

A 26.2% increase in gross revenues from sales of aluminum, from US$1.244 billion in 2006 to US$1.570 billion in 2007, mainly driven by an 8.8% rise in average selling prices. Volume increased by 15.9%, primarily due to the consolidation of Valesul, which began in July 2006.

Stable gross revenues from sales of alumina at US$1.102 billion in 2007, compared to US$1.108 billion in 2006. Both average selling prices and volume sold remained stable.

A 69% increase in gross revenues from sales of bauxite, from US$29 million in 2006 to US$49 million in 2007. Volume increased by 42.6%, reflecting MRN s increased volume available for sale to unaffiliated customers, given the start-up of our Paragominas mine. Average selling prices increased by 18.5% due to higher LME prices for aluminum, the reference price for our bauxite sales.

Logistics services. Gross revenues from logistics services increased by 10.8%. The increase reflects the appreciation of the *real,* since our prices are generally denominated in *reais,* as well as price increases in *reais*. In particular:

Revenues from railroad transportation increased by 20.7%, from US$1.011 billion in 2006 to US$1.220 billion in 2007. Average prices increased by 16.1% and volume shipped increased by 3.9%.

Revenues from port operations increased by 2.3%, from US$261 million in 2006 to US$267 million in 2007. Average prices increased by 7.4%, while volume decreased by 4.4%.

Revenues from shipping decreased by 63.5%, from US$104 million in 2006 to US$38 million in 2007, due to the sale of our controlling interest in Log-In, which is no longer consolidated.

Other products and services. Gross revenues from other products and services increased from US$95 million in 2006 to US$427 million in 2007, primarily reflecting sales of coal following our acquisition of AMCI Holdings Australia Pty.

Operating costs and expenses

The acquisition of Vale Inco had a major impact on our operating costs and expenses (US$2.230 billion in 2006 and US$6.533 billion in 2007) due to the consolidation of its operations and the accounting effect of the business combination. Moreover, like other mining and metals companies, we are currently experiencing higher prices for equipment, replacement parts, energy, inputs and services. The depreciation of the U.S. dollar

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has increased these pressures, because of our costs denominated in other currencies. The following table summarizes our operating costs and expenses for the periods indicated.

	Year ended December 31,			Amount of variation attributable to	% change without
	2006	2007	% change	Vale Inco	Vale Inco
	(US$ million)			(US$ million)	
Cost of ores and metals	US$ 7,946	US$ 13,628	71.5%	US$ 4,303	24.1%
Cost of logistic services	777	853	9.8		9.8
Cost of aluminum products	1,355	1,705	25.8		25.8
Others	69	277	301.4		301.4
Cost of goods sold	10,147	16,463	62.2	4,303	25.4
Selling, general and administrative expenses	816	1,245	52.6	175	33.6
Research and development	481	733	52.4	132	27.1
Other costs and expense	570	607	6.5	3	6.7
Total operating costs and expenses	US$ 12,014	US$ 19,048	58.5%	4,613	25.2%

Cost of goods sold

The following table summarizes the components of our cost of goods sold for the periods indicated.

	Year ended December 31,			Amount of variation attributable to	% change without
	2006	2007	% change	Vale Inco (US$ million)	Vale Inco
	(US$ million)				
Outsourced services	US$ 2,056	US$ 2,628	27.8%	450	6.3%
Materials costs	1,584	2,313	46.0	425	21.0
Energy					
Fuel	912	1,406	54.2	250	29.8
Electric energy	623	878	40.9	112	23.9
Subtotal	1,535	2,284	48.8	362	27.4
Acquisition of iron ore and pellets	758	976	28.8		28.8

Acquisition of other products					
Nickel	482	1,522	215.8	1,040	
Aluminum	336	288	(14.3)		(14.3)
Other	97	86	(11.3)		(11.3)
Subtotal	915	2,872	213.9	1,040	(13.6)
Personnel	917	1,873	104.3	781	24.9
Depreciation and depletion	899	2,049	127.9	802	44.9
Inventory adjustment	946	1,062	12.3	116	
Others	537	1,382	157.4	327	39.2
Total	US$ 10,147	US$ 16,463	62.2%	4,303	25.4%

Our total cost of goods sold increased by 62.2% from 2006 to 2007. This increase resulted primarily from the following factors:

Impact of Vale Inco. Of the total increase in our cost of goods sold, US$4.303 billion represents the difference between Vale Inco s costs for the portion after the acquisition became effective. As described above, part of its costs (US$1.062 billion in 2007 and US$946 million in 2006) related to the recognition of the final purchase accounting adjustments concluded in 2007, relating to the value of Vale Inco inventories.

Impact of depreciation of the U.S. dollar. Because most of our costs and expenses are denominated in currencies other than the U.S. dollar, the depreciation of the U.S. dollar led to higher costs as expressed in that currency. For example, the average value of the *real* against the U.S. dollar for the

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year was 11.7% higher in 2007 than in 2006, which accounted for US$677 million of the increase, excluding Vale Inco.

Outsourced services. Vale Inco accounted for US$450 million of outsourced services. Excluding Vale Inco, outsourced services costs increased by 6.3% in 2007 due to higher volumes and the depreciation of the U.S. dollar against the *real,* partially offset by a decrease in outsourcing contracts for ore and waste removal.

Material costs. Vale Inco accounted for US$425 million of material costs. Excluding Vale Inco, material costs increased by 21% in 2007, primarily reflecting higher volumes, price increase and the depreciation of the U.S. dollar against other currencies.

Acquisition of iron ore and iron ore pellets. Cost of iron ore and iron ore pellets purchased from other mining companies increased 28.8%. We purchased 11.7 million metric tons of pellets from third parties in 2007, an increase of 31.5% compared to 8.9 million metric tons purchased in 2006. This, and the effect of increased price, were partly offset by an 18.6% decrease in the volume of iron ore purchased from third-party suppliers, to 8.3 million metric tons in 2007 compared to 10.2 million metric tons in 2006.

Acquisition of other products. Acquisition of nickel products, which includes nickel concentrates for processing under tolling contracts, intermediary products and finished nickel, totaled US$1.522 billion in 2007.

Energy costs. Vale Inco accounted for US$362 million of energy costs. Excluding Vale Inco, energy costs increased by 27.4% in 2007. The increase in electricity costs primarily reflects 8% higher electricity prices for aluminum production under the Albras electricity contract, which links a portion of the price to the LME price for aluminum, while the increase in fuel costs was driven by higher production and the depreciation of the U.S. dollar.

Personnel costs. Vale Inco accounted for US$781 million of personnel costs. Excluding Vale Inco, personnel costs increased by 24.9%, reflecting an increase in the number of our employees because of the growth of our operations and the return to in-house solutions for some services such as ore and waste removal at our iron ore mines, and the impact of the 2007 wage increases.

Other costs. The increase of US$845 million is mainly due to payments of royalties and the consolidation of Taiwan Nickel Refining Company (TNRC) beginning in the fourth quarter of 2007. We have a 49.9% stake of TNRC, but since we are the only supplier of nickel feed to TNRC, we consolidated it in accordance with Interpretation 46, Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51 (FIN 46), issued in January 2003 and revised in December 2003 (FIN 46-R) by the Financial Accounting Standard Board.

Selling, general and administrative expenses

Selling, general and administrative expenses increased by 52.6%. Vale Inco accounted for US$175 million in selling, general and administrative expenses. Excluding the impact of Vale Inco, selling, general and administrative expenses increased by US$254 million, as a result of higher selling expenses due to the increase in sales volume, advertising (including US$74 million related to the launch of the Vale brand) and the appreciation of the other currencies against the U.S. dollar.

Research and development expenses

Research and development expenses increased by 52.4%. Of the US$252 million increase, US$132 million was attributable to Vale Inco. The remainder of the increase primarily reflects an increase in mineral exploration and project studies in several regions, including South America, Asia, Africa and Australia.

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Operating income by segment

The following table provides information concerning our operating income by segment and as a percentage of revenues for the periods indicated.

	Year ended December 31,					
	2006			2007		
	Segment operating income (loss)			Segment operating income (loss)		
	(US$ million)		(% of net operating revenues)	(US$ million)		(% of net operating revenues)
Ferrous minerals:						
Iron ore	US$	5,168	53.0%	US$	6,325	54.4%
Pellets		630	33.3		659	25.3
Manganese ore		(49)			(9)	
Ferroalloys		3	0.6		182	28.0
Non-ferrous minerals:						
Nickel and other products		411	14.7		4,785	40.6
Potash		28	20.7		37	22.0
Kaolin					(32)	
Copper concentrate		464	61.1		252	32.6
Aluminum:						
Alumina and bauxite		294	26.0		160	13.9
Aluminum		631	51.9		668	44.3
Logistics:						
Railroads		274	32.9		297	29.1
Ports		64	29.5		22	10.0
Ships		(6)			(12)	
Others		(275)			(140)	
Total	US$	7,637	38.9%	US$	13,194	40.9%

Our operating income increased as a percentage of net operating revenues from 38.9% in 2006 to 40.9% in 2007.

This increase was driven primarily by increases in the margins on our iron ore, nickel, ferroalloys and potash businesses, which, together with the impact of consolidating Vale Inco and its operating margin of 40.6%, more than offset lower margins in our iron ore pellets, copper, alumina, aluminum and port businesses.

The increase in margins in our iron ore business primarily reflects higher average selling prices, which more than offset the impact of the appreciation of the *real* against the U.S. dollar, higher research and development expenditures and higher depreciation charges due to the expansion of our asset base.

The increased operating margin for nickel and other products reflects in part the impact of the purchase accounting adjustments relating to inventories described above, which adversely affected margins in 2006 to a much greater degree than in 2007. This will not affect our results in 2008.

The margin declines in the alumina, aluminum and port operations segments resulted primarily from price increases of significant inputs such as electricity, oil, coking coal and pitch, a decrease in the average selling price of alumina, and the appreciation of the *real* against the U.S. dollar.

The margin declines in the copper concentrate segment resulted primarily from higher costs due to lower copper grades and the appreciation of the *real* against the U.S. dollar.

The significant margin increases in the ferroalloys segment are due to higher average prices.

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Non-operating income (expenses)

The following table details our net non-operating income (expenses) for the periods indicated.

	Year ended December 31,	
	2006	2007
	(US$ million)	
Financial income	US$ 327	US$ 295
Financial expenses	(1,338)	(1,592)
Foreign exchange and monetary gains, net	529	2,559
Gain on sale of investments	674	777
Non-operating income	US$ 192	US$ 2,039

We had net non-operating revenues of US$2.039 billion in 2007, compared to net non-operating revenues of US$192 million in 2006. This change primarily reflects:

Higher exchange gains due to the higher average level of net U.S. dollar-denominated liabilities resulting from the Inco acquisition combined with the depreciation of the U.S. dollar.

A decrease in financial income, due mainly to lower average cash balances.

An increase in financial expenses, principally due to the increase in average debt resulting from the Inco acquisition. This was largely offset by a gain of US$925 million in derivative transactions that we entered into, including a swap of *real*-denominated debt into U.S. dollar (gain of US$791 million) and a swap hedging some of our personnel costs from *reais* into dollars (gain of US$127 million).

US$777 million gain on sale of investments in 2007, including the sale of our interests in Usiminas (US$456 million gain), Log-In (US$238 million gain) and Lion Ore Mining (US$80 million gain).

Income taxes

In 2007, we recorded net income tax expense of US$3.201 billion, compared to US$1.432 billion in 2006. The effective tax rate on our pre-tax income was 21% in 2007 and 18.3% in 2006. Our effective tax rate is lower than the statutory rate because (i) income of some non-Brazilian subsidiaries is subject to lower rates of tax, (ii) we are entitled under Brazilian law to deduct the amount of our distributions to shareholders that we classify for tax purposes as interest on shareholders equity and (iii) we benefit from tax incentives applicable to our earnings on production in certain regions of Brazil.

LIQUIDITY AND CAPITAL RESOURCES

Overview

In the ordinary course of business, our principal funding requirements are for capital expenditures, dividend payments and debt service. We have historically met these requirements by using cash generated from operating activities and through borrowings. In 2008, we also raised US$12.2 billion in a global equity offering. For 2009, we have budgeted

capital expenditures of US$14.235 billion and announced minimum dividend payments of US$2.5 billion. We expect our operating cash flow and cash holdings to be sufficient to meet these anticipated requirements.

We also regularly review acquisition and investment opportunities, and when suitable opportunities arise we make selected acquisitions and investments to implement our business strategy. We may fund these investments with internally generated funds or with borrowings, supplemented in some cases by dispositions.

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Sources of funds

Our principal sources of funds are operating cash flow and borrowings, which we supplemented in 2008 with our global equity offering.

Our operating activities generated cash flows of US$17.1 billion in 2008. Operating cash flows have grown steadily in recent years, driven by the growth in our sales volumes and by rising prices.

At December 31, 2008, we had available committed revolving credit lines totaling US$1.9 billion, of which US$1.15 billion was granted to Vale International and the balance to Vale Inco. As of December 31, 2008, neither Vale International nor Vale Inco had drawn any amounts under these facilities, and US$101 million of letters of credit were issued and outstanding pursuant to Vale Inco s facility.

In April 2008, we entered into a credit line for investment with BNDES for R$7.3 billion, or approximately US$3.12 billion, of which we have drawn US$211 million.

During 2008, we signed framework agreements with the Japan Bank for International Cooperation (JBIC) and Nippon Export and Investment Insurance (NEXI) for the financing of mining, logistics and power-generation projects. These agreements represent US$5.0 billion of long-term financing. We are also negotiating similar agreements with other agencies and have already signed a memorandum of understanding with the Export-Import Bank of Korea (KEXIM), the Korean official credit agency for export and import financing.

Uses of funds

Capital expenditures

Capital expenditures amounted to US$10.319 billion in 2008, and we have budgeted US$14.235 billion for 2009. Our actual capital expenditures may differ from the budgeted amount for a variety of reasons, including changes in exchange rates. Our capital expenditures figures include some amounts that are treated as current expense for accounting purposes, such as project development, maintenance of existing assets, and research and development. For more information about the specific projects for which we have budgeted funds, *see Item 4. Information on the company Capital expenditures*.

Distributions

We paid total dividends of US$2.850 billion in 2008 (including distributions classified for tax purposes as interest on shareholders equity). The minimum dividend announced for 2009 is US$2.5 billion. The first installment of this dividend, in the amount of US$1.250 billion, will be paid on April 30, 2008. See *Item 8. Financial information Distributions*.

In 2008, we also paid US$142 million of total interest (quarterly interest plus additional interest based on cash distributions in respect of ADSs) on our mandatorily convertible notes.

Debt

At December 31, 2008, we had aggregate outstanding debt of US$18.245 billion. Our outstanding long-term debt (including the current portion of long-term debt and accrued charges) was US$18.168 billion, compared with US$18.857 billion at the end of 2007. At December 31, 2008, US$504 million of our debt was secured by liens on some of our assets. At December 31, 2008, the average debt maturity was 9.28 years, compared with 10.7 years in

2007.

For information about our management of interest rate and currency risk on our debt, see *Item 11. Quantitative and qualitative disclosures about market risk.*

We are currently rated BBB+ (Standard & Poor s), Baa2 (Moody s), BBB high (Dominion) and BBB- (Fitch).

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In general, our short-term debt consists primarily of U.S. dollar-denominated trade financing, mainly in the form of export prepayments and export sales advances with financial institutions. At December 31, 2008, we had no outstanding short-term debt.

Our major categories of long-term indebtedness are as follows. The amounts given below include the current portion of long-term debt and exclude accrued charges.

U.S. dollar-denominated loans and financing (US$6.115 billion at December 31, 2008). These loans include export financing lines, import finance from export credit agencies, and loans from commercial banks and multilateral organizations. The largest facility is a pre-export financing facility, linked to future receivables from export sales, that was originally entered into in the amount of US$6.0 billion as part of the refinancing of the Inco acquisition debt. The outstanding amount at December 31, 2008 was US$3.9 billion.

U.S. dollar-denominated fixed rate notes (US$6.510 billion at December 31, 2008). We have issued through public offerings several series of fixed rate debt securities through our finance subsidiary Vale Overseas Limited with a Vale guarantee in the amount of US$5.385 billion. Our subsidiary Vale Inco has issued fixed rate debt in the amount of US$1.125 billion.

U.S. dollar-denominated loans secured by future export receivables (US$204 million at December 31, 2008). We have a US$400 million securitization program based on existing and future receivables generated by our subsidiary CVRD Finance from exports of iron ore and iron ore pellets to six of our customers in Europe, Asia and the United States.

Real-*denominated non-convertible debentures (US$2.562 billion at December 31, 2008).* In November 2006, we issued non-convertible debentures in the amount of approximately US$2.6 billion, in two series, with four- and seven-year maturities. The first series, approximately US$700 million at issuance, matures in 2010 and bears interest at 101.75% of the accumulated variation of the Brazilian CDI (interbank certificate of deposit) interest rate. The second series, approximately US$1.9 billion at issuance, matures in 2013 and bears interest at the Brazilian CDI interest rate plus 0.25% per year. At December 31, 2008, the total amount of these two series was US$2.353 billion.

Perpetual notes (US$83 million at December 31, 2008). We have issued perpetual notes that are exchangeable for 48.000 billion preferred shares of MRN. Interest is payable on the notes in an amount equal to dividends paid on the underlying preferred shares.

Other debt (US$2.383 billion at December 31, 2008). We have outstanding debt, principally owed to BNDES and Brazilian commercial banks, and loans and financing in other currencies.

Some of our long-term debt instruments contain financial covenants. Our principal covenants require us to maintain certain ratios, such as debt to equity, net debt to EBITDA and interest coverage. We were in full compliance with our financial covenants as of December 31, 2008, and we believe that our existing covenants will not significantly restrict our ability to borrow additional funds as needed to meet our capital requirements. We believe we will be able to operate within the terms of our financial covenants for the foreseeable future. None of these covenants directly restricts our ability to pay dividends on equity securities at the parent-company level.

Shareholder Debentures

At the time of the first stage of our privatization in 1997, we issued shareholder revenue interests known in Brazil as *debentures participativas* to our then-existing shareholders. The terms of the debentures were established to ensure

that our pre-privatization shareholders, including the Brazilian government, would participate alongside us in potential future financial benefits that we derive from exploiting certain mineral resources that were not taken into account in determining the minimum purchase price of our shares in the privatization. In accordance with the debentures deed, holders have the right to receive semi-annual payments

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equal to an agreed percentage of our net revenues (revenues less value-added tax, transport fee and insurance expenses related to the trading of the products) from certain identified mineral resources that we owned at the time of the privatization, to the extent that we exceed defined thresholds of sales volume relating to certain mineral resources, and from the sale of mineral rights that we owned at that time. Our obligation to make payments to the holders will cease when the relevant mineral resources are exhausted.

The total payments made under the shareholder debentures amounted to US$6 million in 2006, US$11 million in 2007 and US$11 million in 2008. See Note 20 to our consolidated financial statements for a description of the terms of the debentures.

CONTRACTUAL OBLIGATIONS

The following table summarizes our long-term debt, short-term debt, operating lease obligations, purchase obligations and take-or-pay obligations of our subsidiary MRN at December 31, 2008. This table excludes other common non-contractual obligations that we may have, including pension obligations, deferred tax liabilities and contingent obligations arising from uncertain tax positions, all of which are discussed in the notes to our consolidated financial statements.

	Payments due by period				
	Total	Less than 1 year	2010-2011	2012-2013	Thereafter
			(US$ million)		
Long-term debt(1)	US$ 17,857	US$ 322	US$ 4,922	US$ 3,693	US$ 8,920
Short-term debt					
Interest payments(2)	12,595	1,161	2,108	1,868	7,458
Operating lease obligations(3)	2,238	134	268	268	1,568
Ferrovia Norte Sul S.A. subconcession	400	400			
Purchase obligations(4)	13,520	4,170	2,662	1,398	5,290
Take-or-pay obligation (MRN)(5)	1,041	281	378	382	
Total	US$ 47,651	US$ 6,468	US$ 10,338	US$ 7,609	US$ 23,236

(1) Amounts include the current portion of long-term debt and do not include accrued charges.

(2) Consists of estimated future payments of interest on our loans, financings and debentures, calculated based on interest rates and foreign exchange rates applicable at December 31, 2008 and assuming (i) that all amortization payments and payments at maturity on our loans, financings and debentures will be made on their scheduled payments dates, and (ii) that our perpetual bonds are redeemed on the first permitted redemption date.

(3) Amounts include fixed payments related to the operating lease contracts for the pelletizing plants.

(4) Obligations to purchase materials. Amounts are based on contracted prices, except for purchases of iron ore from mining companies located in Brazil, which are based on 2008 average prices.

(5) Our subsidiary Alunorte is committed under a take-or-pay agreement to purchase bauxite from MRN at a price that is determined by a formula based on prevailing world prices of aluminum. The values in the table are based

on year-end 2008 prices.

OFF-BALANCE SHEET ARRANGEMENTS

At December 31, 2008, our off-balance sheet arrangements consisted primarily of the following items. For more information on our off-balance sheet arrangements see Note 20 to our consolidated financial statements.

Sumic Nickel Netherlands B.V. (Sumic), owner of 21% of the shares of Goro, has a put option to sell to Vale Inco 25%, 50%, or 100% of its shares of Goro. The put option can be exercised if the cost of the Goro project exceeds US$4.2 billion at projected exchange rates and an agreement cannot be reached on how to proceed with the project.

We provided a guarantee to cover potential termination payments under an energy supply agreement for the Goro project. The amount of any termination payment depends on a number of factors, including the date of any termination. The maximum amount of any termination payment would be 145 million, decreasing over the term of the agreement.

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We provided certain guarantees on behalf of Goro in connection with the Girardin tax-advantaged lease financing. We guaranteed payments due from Goro of up to a maximum amount of US$100 million in connection with an indemnity, and provided an additional guarantee covering the payments due from Goro of (a) amounts exceeding the maximum amount in connection with the indemnity and (b) certain other amounts payable by Goro under a lease agreement covering certain assets.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

We believe that the following are our critical accounting policies. We consider an accounting policy to be critical if it is important to our financial condition and results of operations and if it requires significant judgments and estimates on the part of our management. For a summary of all of our significant accounting policies, see Note 3 to our consolidated financial statements.

Mineral reserves and useful life of mines

We regularly evaluate and update our estimates of proven and probable mineral reserves. Our proven and probable mineral reserves are determined using generally accepted estimation techniques. Calculating our reserves requires us to make assumptions about future conditions that are highly uncertain, including future ore prices, currency prices, inflation rates, mining technology, availability of permits and production costs. Changes in some or all of these assumptions could have a significant impact on our recorded proven and probable reserves.

One of the ways we make our ore reserve estimates is to determine the mine closure dates used in recording the fair value of our asset retirement obligations for environmental and site reclamation costs and the periods over which we amortize our mining assets. Any change in our estimates of total expected future mine or asset lives could have an impact on the depreciation, depletion and amortization charges recorded in our consolidated financial statements under cost of goods sold. Changes in the estimated lives of our mines could also significantly impact our estimates of environmental and site reclamation costs, which are described in greater detail below.

Environmental and site reclamation costs

Expenditures relating to ongoing compliance with environmental regulations are charged against earnings or capitalized as appropriate. These ongoing programs are designed to minimize the environmental impact of our activities.

SFAS 143, Accounting for Asset Retirement Obligations, requires that we recognize a liability for the fair value of our estimated asset retirement obligations in the period in which they are incurred, if a reasonable estimate can be made. We consider the accounting estimates related to reclamation and closure costs to be critical accounting estimates because:

- we will not incur most of these costs for a number of years, requiring us to make estimates over a long period;
- reclamation and closure laws and regulations could change in the future or circumstances affecting our operations could change, either of which could result in significant changes to our current plans;
- calculating the fair value of our asset retirement obligations in accordance with SFAS 143 requires us to assign probabilities to projected cash flows, to make long-term assumptions about inflation rates, to determine our credit-adjusted risk-free interest rates and to determine market risk premiums that are appropriate for our operations; and

given the significance of these factors in the determination of our estimated environmental and site reclamation costs, changes in any or all of these estimates could have a material impact on net income. In particular, given the long periods over which many of these charges are discounted to

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present value, changes in our assumptions about credit-adjusted risk-free interest rates could have a significant impact on the size of our provision.

Our Environmental Department defines the rules and procedures that should be used to evaluate our asset retirement obligations. The future costs of retirement of all of our mines and sites are reviewed annually, considering the actual stage of exhaustion and the projected exhaustion date of each mine and site. The future estimated retirement costs are discounted to present value using a credit-adjusted risk-free interest rate. At December 31, 2008, we estimated the fair value of our aggregate total asset retirement obligations to be US$887 million.

Impairment of long-lived assets and goodwill

We have made acquisitions that included a significant amount of goodwill, as well as intangible and tangible assets. Under generally accepted accounting principles, except for goodwill and indefinite-life intangible assets, all long-lived assets, including these acquired assets, are amortized over their estimated useful lives, and are tested to determine if they are recoverable from operating earnings on an undiscounted cash flow basis over their useful lives whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors that could trigger an impairment review include the following:

significant underperformance relating to expected historical or projected future operating results of entities or business units;

significant changes in the manner in which we use the acquired assets or our overall business strategy; or

significant negative industry or economic trends.

When we determine that the carrying value of definite-life intangible assets and long-lived assets may not be recoverable based upon verification of one or more of the above indicators of impairment, we measure any impairment loss based on a projected discounted cash flow method using a discount rate determined by our management to be commensurate with the risk inherent in our current business model.

We are required to assign goodwill to reporting units and to test each reporting unit s goodwill for impairment at least annually and whenever circumstances indicating that recognized goodwill might not be fully recovered are identified. In the first step of a goodwill impairment test, we compare a reporting unit s fair value with its carrying amount to identify any potential goodwill impairment loss. If the carrying amount of a reporting unit exceeds the unit s fair value, we must carry out the second step of the impairment test to measure the amount, if any, of the unit s goodwill impairment loss. Goodwill arising from a business combination with a continuing non-controlling interest must be tested for impairment by using an approach that is consistent with the approach that the entity used to measure the non-controlling interest at the acquisition date. For equity investees we determine annually whether there is an other-than-temporary decline in the fair value of the investment.

Following the downturn in the economy, which contributed to the decline in the prices of certain commodities produced by us during the last quarter of 2008, we updated our impairment test initiated during the fourth quarter and performed throughout the preparation of our 2008 annual financial statements, based on revised forecasted discounted cash flows. As a result, we determined that the goodwill associated with the acquisition of Vale Inco, included within the reportable segment Non-ferrous nickel, was partially impaired. The impairment charge recorded in operating results in the fourth quarter of 2008 was US$950 million. At December 31, 2008, we had US$1.9 billion of goodwill.

For impairment test purposes, management determined discounted cash flows based on approved budget assumptions. Gross margin projections were based on past performance and management s expectations of market developments.

Information about sales prices is consistent with the forecasts included in industry reports, taking into account quoted prices when available and appropriate. The discount rates used reflect

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specific risks relating to the relevant assets in each reporting unit, depending on their composition and location.

Recognition of additional goodwill impairment charges in the future would depend on several estimates, including market conditions, recent actual results and management s forecasts. This information will be obtained when our assessment is updated during the fourth quarter of 2009, or earlier if impairment indicators are identified.

It is not possible at this time to determine whether an impairment charge will be taken in the future and if it were to be taken, whether such charge would be material. However, if the global economy remains depressed, we could potentially face additional goodwill impairment charges.

Derivatives

SFAS 133, Accounting for Derivative Financial Instruments and Hedging Activities, as amended by SFAS 137, SFAS 138 and SFAS 149, requires that we recognize all derivative financial instruments as either assets or liabilities on our balance sheet and measure such instruments at fair value. Changes in the fair value of derivatives are recorded in each period in current earnings or in other comprehensive income (outside net income), in the latter case depending on whether a transaction is designated as an effective cash flow hedge. Fair value adjustments to our derivatives are recorded in current net income, unless designated as cash flow hedges, as permitted under SFAS 133. The corresponding unrealized fair value adjustments to cash flow hedges are recognized directly to shareholders equity. We use well-known market participants valuation methodologies to compute the fair value of instruments. To evaluate the financial instruments, we use estimates and judgments related to present values, taking into account market curves, projected interest rates, exchange rates, forward market prices and their respective volatilities, when applicable. We consider non-performance risk on financial instruments and derivative transactions that are executed with financial institutions that we consider to have a high credit quality. The exposure limits to financial institutions are proposed annually by the Executive Risk Committee and approved by the Executive Board. The financial institution s credit risk tracking is performed making use of a credit risk valuation methodology that considers, among other information, published ratings provided by international rating agencies and other management judgments. At December 31, 2008, we did not have any derivative instruments designated as cash flow hedges. In 2008, we recorded to the income statement unrealized losses of US$811 million in relation to fair value adjustments on derivative instruments.

Income taxes

In accordance with SFAS 109, Accounting for Income Taxes, we recognize deferred tax effects of tax losses carryforward and temporary differences in our consolidated financial statements. We record a valuation allowance when we believe that it is more likely than not that tax assets will not be fully recoverable in the future.

When we prepare our consolidated financial statements, we estimate our income taxes based on regulations in the various jurisdictions where we conduct business. This requires us to estimate our actual current tax exposure and to assess temporary differences that result from deferring treatment of certain items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which we show on our consolidated balance sheet. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income. To the extent we believe that recovery is not likely, we establish a valuation allowance. When we establish a valuation allowance or increase this allowance in an accounting period, we record a tax expense in our statement of income. When we reduce the valuation allowance, we record a tax benefit in our statement of income.

Determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance to be recorded against our net deferred tax assets requires significant management judgment, estimates and assumptions about matters that are highly uncertain. For each income tax asset, we evaluate the likelihood of whether some portion or the entire asset will not be realized. The valuation allowance made in

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relation to accumulated tax losses carryforward depends on our assessment of the probability of generation of future taxable profits within the legal entity in which the related deferred tax asset is recorded based on our production and sales plans, selling prices, operating costs, environmental costs, group restructuring plans for subsidiaries and site reclamation costs and planned capital costs.

Contingencies

We disclose material contingent liabilities unless the possibility of any loss arising is considered remote, and we disclose material contingent assets where the inflow of economic benefits is probable. We discuss our material contingencies in Note 20 to our financial statements.

We account for contingencies in accordance with SFAS 5, Accounting for Contingencies, which requires that we record an estimated loss from a loss contingency when information available prior to the issuance of our financial statements indicates that it is probable that a future event will confirm that an asset has been impaired or a liability has been incurred at the date of the financial statements, and the amount of the loss can be reasonably estimated. In particular, given the nature of Brazilian tax legislation, the assessment of potential tax liabilities requires significant management judgment. By their nature, contingencies will only be resolved when one or more future events occurs or fails to occur, and typically those events will occur a number of years in the future. Assessing such liabilities, particularly in the Brazilian legal environment, inherently involves the exercise of significant management judgment and estimates of the outcome of future events.

The provision for contingencies at December 31, 2008, totaling US$1.685 billion, consists of provisions of US$458 million, US$386 million, US$828 million and US$13 million for labor, civil, tax and other claims, respectively.

Employee post-retirement benefits

We sponsor a defined benefit pension plan covering some of our employees. We account for these benefits in accordance with SFAS No. 132, Employers Disclosure about Pensions and Other Post-Retirement Benefits and SFAS No. 158, Employees Accounting for Defined Benefit Pension and Other Post-Retirement Plans, as amended.

The determination of the amount of our obligations for pension benefits depends on certain actuarial assumptions. These assumptions are described in Note 18 to our consolidated financial statements and include, among others, the expected long-term rate of return on plan assets and increases in salaries. In accordance with U.S. GAAP, actual results that differ from our assumptions and are not a component of net benefit costs for the year are recorded in other comprehensive income (loss).

Item 6. ***Directors, senior management and employees***

BOARD OF DIRECTORS

Overview

Our Board of Directors sets general guidelines and policies for our business and monitors the implementation of those guidelines and policies by our executive officers. The Board of Directors holds regularly scheduled meetings on a monthly basis and holds additional meetings when called by its chairman, vice-chairman or any two directors. Decisions of the Board of Directors require a quorum of a majority of the directors and are taken by majority vote.

Under Brazilian corporate law, the board of directors must have at least three members. Each director and his or her respective alternate, who must be a shareholder of Vale, are elected at a general shareholders meeting and are subject to removal at any time. Our bylaws state that the Board of Directors consists of eleven members and eleven alternates. Our employees have the right to appoint one director and an alternate. Members of the Board of Directors are elected for two-year terms and can be re-elected. Each alternate

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director serves on behalf of a specific board member. In the absence of the director for whom an alternate director is acting, that alternate director may attend and vote at meetings of the Board of Directors.

Nine of our 11 current directors and nine of our current alternate directors were appointed to their positions by Valepar, our controlling shareholder, pursuant to Valepar s shareholders agreement and the provisions of Brazilian corporate law. For a description of the procedures under which our directors are elected, see *Item 10.*

Additional information Memorandum and articles of incorporation Common shares and preferred shares General. For a description of Valepar s shareholders agreement, see *Item 7. Major shareholders and related party transactions Major shareholders Controlling shareholder.*

Directors of Vale

The following table lists the current members of the Board of Directors. All of our directors were elected or re-elected, as the case may be, at our annual shareholders meeting in April 2009. The terms of all of our directors will expire in 2011. The alternate position corresponding to Mr. Francisco Augusto da Costa e Silva is vacant.

	Year first elected	Position	Age
Sérgio Ricardo Silva Rosa(1)	2003	Chairman	49
Mário da Silveira Teixeira Júnior(1)	2003	Vice-Chairman	63
José Ricardo Sasseron(1)	2007	Director	52
Jorge Luiz Pacheco(1)	2003	Director	54
Sandro Kohler Marcondes(1)	2007	Director	45
Renato da Cruz Gomes(1)	2001	Director	56
Ken Abe(1)	2009	Director	61
Oscar Augusto de Camargo Filho(1)	2003	Director	71
Luciano Galvão Coutinho(1)	2007	Director	62
Eduardo Fernando Jardim Pinto(2)	2009	Director	46
Francisco Augusto da Costa e Silva(3)	2005	Director	60

(1) Appointed by Valepar and approved at the shareholders meeting.

(2) Appointed by our employees and approved at the shareholders meeting.

(3) Nominated by Vale s non-controlling shareholders in 2005 and reappointed in 2007 and 2009.

The following table lists the alternate members of the Board of Directors.

	Year first elected	Position	Age
Luiz Felix de Freitas(1)	2009	Alternate Director	50
João Moisés de Oliveira(1)	2000	Alternate Director	64
Rita de Cássia Paz Andrade Robles(1)	2005	Alternate Director	42
Deli Soares Pereira(1)	2009	Alternate Director	59

Luiz Augusto Ckless Silva(1)	2009	Alternate Director	49
Luiz Carlos de Freitas(1)	2007	Alternate Director	56
Hidehiro Takahashi(1)	2005	Alternate Director	53
Wanderlei Viçoso Fagundes(1)	2003	Alternate Director	62
Paulo Sérgio Moreira da Fonseca	2007	Alternate Director	58
Raimundo Nonato Alves Amorim(2)	2009	Alternate Director	50

(1) Appointed by Valepar and approved at the shareholders meeting.

(2) Appointed by our employees and approved at the shareholders meeting.

Below is a summary of the business experience, areas of expertise, and principal outside business interests of our current directors.

Sérgio Ricardo Silva Rosa. Mr. Rosa joined our Board of Directors in April 2003 and was designated as chairman in May 2003. Mr. Rosa is currently the chief executive officer of Caixa de Previdência dos

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Funcionários do Banco do Brasil (Previ), where he has been an executive officer since 2000. He is also a director and chief executive officer of Valepar and chief executive officer of Litel Participações S.A. Mr. Rosa has been a director of Brasil Telecom Participações since December 2000, and of Sauípe S.A. since May 2001. Prior to joining Previ, Mr. Rosa served as president of the Confederação Nacional dos Bancários from June 1994 to May 2000. From January 1995 to December 1996, Mr. Rosa was an alderman of the municipality of São Paulo. He received his degree in journalism from the Universidade de São Paulo.

Mário da Silveira Teixeira Júnior. Mr. Teixeira joined our Board of Directors in April 2003, and was designated vice-chairman in May 2003. He started his career at Bradesco Organization in July 1971, at Bradesco S.A Corretora de Títulos e Valores Mobiliários, and served as an officer there from March 1983 to January 1984; he was subsequently transferred to Banco Bradesco de Investimento S.A. and Banco Bradesco S.A (Banco Bradesco). At Banco Bradesco, he was elected department director in January 1984; executive managing officer in March 1992 and executive vice-president in March 1998. He was also a member of the board of directors of Banco Bradesco from March 1999 to July 2001, when he resigned to preside over Bradespar S.A., a company created after partial spin-off of Banco Bradesco. He returned as member of the board directors of Banco Bradesco in March 2002, a position he holds to date. Currently, he is a member of the board of directors of Bradesco Leasing S.A. Arrendamento Mercantil. He is a member of the managing body and managing director of Fundação Bradesco. He is also a member of the board of directors and managing director of Foundation Institute for Digestive System and Nutrition Diseases (FIMADEN). In addition to these activities, he is member of the board of directors of Bradespar S.A., vice-chairman of the board of directors of Valepar S.A., and a sitting member of the board of directors of Banco Espírito Santo de Investimentos S.A., headquartered in Lisbon, Portugal. He was executive vice-president of the National Association of the Investment Banks (ANBID); member of the board of directors of the Brazilian Association of Publicly-Held Companies (ABRASCA); vice-chairman of the board of directors of BES Investimento do Brasil Banco de Investimento, member of the board of directors of Companhia Paulista de Força e Luz CPFL, Companhia Piratininga de Força e Luz, Companhia Siderúrgica Nacional, CPFL Energia S.A., CPFL Geração de Energia S.A., Latasa S.A., São Paulo Alpargatas S.A., Tigre S.A. Tubos e Conexões, VBC Energia S.A. and VBC Participações S.A. He received his degree in civil engineering and business administration.

José Ricardo Sasseron. Mr. Sasseron joined our Board of Directors in April 2007. Mr. Sasseron is currently an officer of Previ. He began his career in 1980 at Banco do Brasil S.A. (Banco do Brasil). From 1996 to 1998, he was chairman of the fiscal council of Previ. Since 2001, he has been a member of the Conselho de Gestão e Previdência Complementar (CGPC) and president of the Associação Nacional dos Participantes de Fundo de Pensão (ANAPAR). From 2005 to 2007, he was chairman of the board of directors of Sauípe S.A., and in 2004 he returned to Previ, where he was a member of the *Conselho Deliberativo* until 2006. He received his degree in history from the Universidade de São Paulo.

Jorge Luiz Pacheco. Mr. Pacheco joined our Board of Directors in April 2003. Mr. Pacheco has been manager of strategic investments at Previ since December 2000. From 1973 to 2000, he worked at Banco do Brasil. He has also served as a director of Valepar and an officer of Litel, and has held an officer position in the fiscal council of Companhia Siderúrgica Belgo-Mineira. He received his degree in economics from Universidade Cândido Mendes, and post-graduate degrees in finance and business management from Instituto Brasileiro de Mercado de Capitais (IBMEC) in Rio de Janeiro.

Sandro Kohler Marcondes. Mr. Marcondes joined our Board of Directors in April 2007. He is currently an officer of Banco do Brasil, where he has worked in various capacities both in Brazil and abroad since 1982. Since 2005, he has been an officer of BB Leasing, Banco do Brasil Securities in New York, BB Securities in London and BB Tur. Mr. Marcondes received his bachelor s degree in business administration from the Universidade Estadual de Guarapuava and a master s degree from Fundação Getúlio Vargas in São Paulo.

Renato da Cruz Gomes. Mr. Gomes joined our Board of Directors in April 2001. Mr. Gomes has been an executive officer of Bradespar S.A. since 2000. From 1976 to 2000, Mr. Gomes held a variety of positions at BNDES and he has served on the boards of directors of Aracruz Celulose S.A., Iochpe Maxion S.A., Bahia

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Sul Celulose S.A., Globo Cabo S.A. and Latasa. He was also a member of the advisory board of Fator Sinergia Fundo de Investimento de Valores Mobiliários em Ações and the investment committee of Bradesco Templeton Value and Liquidity Fund. Mr. Gomes has been an executive officer of Valepar since April 2001 and is a member of Valepar s board of directors. He received his degree in engineering from the Universidade Federal do Rio de Janeiro, and his post-graduate degree in management development from Sociedade de Desenvolvimento Empresarial (SDE).

Ken Abe. Mr. Abe joined our Board of Directors in April 2009. From October 2003 to April 2006, Mr. Abe served as member of the board of directors of Valepar. He joined Mitsui & Co., Ltd. in 1970, where he has held a variety of positions, and is currently its executive director, executive vice-president. Mr. Abe has a degree in economics from Waseda University.

Oscar Augusto de Camargo Filho. Mr. Camargo Filho joined our Board of Directors in October 2003. He is currently a partner of CWH Consultoria Empresarial. From 1999 to 2003, Mr. Camargo Filho served as chairman of the board of directors of MRS. From 1973 to 2003, he held various positions with CAEMI Mineração e Metalurgia S.A. (CAEMI), including chief executive officer and member of its board of directors. From 1963 until 1973, he held a variety of positions at Motores Perkins S.A., including commercial officer and sales and services manager. He received his law degree from the Universidade de São Paulo.

Luciano Galvão Coutinho. Mr. Coutinho joined our Board of Directors in August 2007. Mr. Coutinho is the president of BNDES. He holds a Ph.D. in economics from Cornell University and is an invited professor at Universidade Estadual de Campinas (UNICAMP). A specialist in international and industrial economics, he has written and edited several books and articles, that have been published in Brazil and abroad. In 1994, Mr. Coutinho coordinated a study on the competitiveness of the Brazilian industry, which entailed an extensive mapping of the Brazilian industrial sector by nearly one hundred specialists. He was executive secretary of the Ministry of Science and Technology from 1985 to 1988, where he participated in the restructuring of the ministry and in policy-making with respect to complex areas such as biotechnology, information technology, chemistry, mechanics and new materials. Mr. Coutinho holds an undergraduate degree in economics from the Universidade de São Paulo, where he received the Gastão Vidigal award for best economics student. He holds a master s degree in economics from the Economic Research Institute of the Universidade de São Paulo. Mr. Coutinho has been a visiting professor at the Universidade de São Paulo, the University of Paris XIII, the University of Texas and the Ortega y Gasset Institute. Before assuming the presidency of BNDES, Mr. Coutinho was a partner of LCA Consultores, where he provided expert advice on antitrust, international trade and economics.

Eduardo Fernando Jardim Pinto. Mr. Jardim Pinto joined our Board of Directors in April 2009. He also served on our Board from 2005 to 2007. Since 1983 he has held several positions at Vale, including specialized train conductor. Currently, he is a coordinator of CUTVALE, and since August 1997 he has been president of the railroad employees union in the states of Pará, Maranhão and Tocantins. He received a law degree from Faculdade São Luís.

Francisco Augusto da Costa e Silva. Mr. Costa e Silva joined our Board of Directors in April 2005. He is also a partner of Bocater, Camargo, Costa e Silva Advogados Associados, a law firm in Rio de Janeiro. Mr. Costa e Silva also serves as a director of the *Comitê de Ética de Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais* (APIMEC) of Banco de Brasil, and of the development committee of Pontifícia Universidade Católica in Rio de Janeiro. He started his career at BNDES, where he held a variety of positions, including executive officer. Previously, he served on the board of directors of several companies and entities, namely Solpart Participações S.A., Aracruz Celulose S.A., Pisa Papel de Imprensa S.A., *Fundação de Assistência e Previdência Social do BNDES* and the Rio de Janeiro Stock Exchange. Mr. Costa e Silva also served as president of the CVM and of the Council of Securities Regulators of the Americas (COSRA) joined *Comissão da Moeda e do Crédito* (COMOC) and the Supplemental Pension Plan Council and served on the executive committee of the International Organization of Securities Commissions (IOSCO). Mr. Costa e Silva received his law degree from the Universidade do Estado da

Guanabara, currently UERJ, and an MBA degree from the Universidade Federal do Rio de Janeiro.

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EXECUTIVE OFFICERS

Overview

The executive officers are our legal representatives and are responsible for day-to-day operations and the implementation of the general policies and guidelines set forth by the Board of Directors. Our bylaws provide for a minimum of six and a maximum of eleven executive officers. The Board of Directors appoints executive officers for two-year terms and may remove them at any time. Under Brazilian corporate law, executive officers must be Brazilian residents. The executive officers hold regularly scheduled meetings on a weekly basis and hold additional meetings when called by any executive officer.

Executive officers

The following table lists our current executive officers. The term of each of our executive officers expires in May 2009.

	Year of appointment	Position	Age
Roger Agnelli	2001	Chief Executive Officer	49
Fabio de Oliveira Barbosa	2002	Chief Financial Officer	48
José Carlos Martins	2004	Executive Officer (Ferrous Minerals)	59
Eduardo de Salles Bartolomeo	2006	Executive Officer (Logistics, Project Management and Sustainability)	45
Carla Grasso	2001	Executive Officer (Human Resources & Corporate Services)	47
Tito Botelho Martins	2006	Executive Officer (Non-ferrous Minerals)	46

We have summarized below the experience, areas of expertise, and principal outside business interests of our current executive officers.

Roger Agnelli. Mr. Agnelli was appointed as our chief executive officer and president in July 2001. Prior to his appointment, he was the chairman of our Board of Directors from May 2000 until July 2001. Mr. Agnelli developed his professional career at the Bradesco Financial Group, one of the largest private financial institutions in Brazil, from 1981 to 2001, where he served as executive director of Banco Bradesco from 1998 until 2000. Given his experience in the areas of investment, mergers & acquisitions and asset management, he was director of UGB and vice-president of Brazil s National Association of Investment Banks (ANBID). Mr. Agnelli was also president and chief executive officer of Bradespar from March 2000 to July 2001 and a member of the board of directors of several major companies in Brazil and abroad, such as Companhia Paulista de Força e Luz, CSN, Latasa S.A., VBC Energia, Brasmotor, Mahle Metal Leve, Rio Grande Energia, Suzano Petroquímica, Serra da Mesa Energia, Duke Energy, Spectra Energy and Petrobras. From 2003 until 2007, he was a member of the Economic and Social Development Council (CDES), an advisory body to the president of Brazil. He is presently a member of the Private Sector Advisory Council (CONEX) of the foreign trade chamber of the presidency of Brazil and a member of the international advisory investment council to the president of the Republic of Mozambique, Dr. Armando Guebuza. He is vice-president of the center of industries of the state of Rio de Janeiro, and a member of the strategic superior council of the Federation of Industries of the State of São Paulo (FIESP). He is also a member of the board of directors of ABB Ltd, Anadarko s

Global Advisory Board and the international advisory committee of the NYSE. Mr. Agnelli has a degree in economics from the Fundação Armando Álvares Penteado in São Paulo.

Carla Grasso. Ms. Grasso was appointed as our executive officer for human resources and corporate services in October 2001. She joined us in 1997 as chief of personnel, management and information technology officer of our corporate centre, a post she held until assuming her current position. Prior to joining us, Ms. Grasso was chairperson of Brazil s Pension Fund Authority and head of the office of international affairs of the Ministry of Social Welfare. She was also head of the department of fiscal policies of the Ministry of Finance and coordinator of the social and macroeconomic areas in the office of the president of Brazil. She is vice-president of Vale Inco s executive board of directors and member of Curator s Council of

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Fundação Vale. Ms. Grasso holds a degree in economics from the Universidade de Brasília and a master s degree in economic policies, and has attended other executive education programs. For three years, she lectured economics and advanced mathematics at the Centro Universitário do Distrito Federal and at the Universidade Católica de Brasília.

Eduardo de Salles Bartolomeo. Mr. Bartolomeo was appointed as our executive officer of logistics, engineering and projects management in January 2007. From August to December 2006, Mr. Bartolomeo was president of Petroflex. Between January 2004 and July 2006, he was an officer of our logistics operations department. Mr. Bartolomeo began his career as a trainee in 1988 at COSIPA, and a year later he became head of the steel conversion sector, a position he held until 1991. His next professional experience was at Americas Brewery Co. (AMBEV), the world s third largest brewery company, where he worked from 1994 until 2003. At AMBEV, he held several executive positions such as manager of corporate planning, plant manager, corporate logistics manager and regional director. Mr. Bartolomeo is a member of the boards of directors of Log-in and MRS. Mr. Bartolomeo graduated in metallurgical engineering from the Universidade Federal Fluminense, and an MBA from the Katholieke University at Leuvin in Belgium.

Fabio de Oliveira Barbosa. Mr. Barbosa was appointed as our chief financial officer and investor relations officer in May 2002, and he is also responsible for the new business development area. From April 2000 to March 2002, Mr. Barbosa served as a member of our Board of Directors. Prior to joining Vale, Mr. Barbosa has served as Secretary of the National Treasury at the Ministry of Finance from July 1999 until January 2002, after having held the position of assistant secretary in previous years. From 1992 to 1995, he served as advisor to the executive board of directors of the World Bank, in Washington, DC. From 1985 to 1990, Mr. Barbosa held various relevant positions at different public institutions, such as Institute for Applied Economic Research (IPEA), the Ministry of Industry and Commerce, the institute for development of the state of Paraná, the Ministry of Labor, and the Ministry of Federal Planning, where he worked as an economic advisor and head of the unit for economic analysis. From 1990 to 1992, he was first a deputy and then a head of the fiscal policy unit at the Ministry of Finance. He has also been the chairman of the board of directors of CAEMI, Banco do Estado de São Paulo S.A., and member of the boards of Banco do Brasil, Caixa Econômica Federal, Companhia Siderúrgica de Tubarão and Telecomunicações de São Paulo (TELESP). He is also a member of the Board of Directors of BM&F Bovespa. Mr. Barbosa holds a degree in economics from the Universidade Federal de Minas Gerais and concluded a master s (all but dissertation) in economics from the Universidade de Brasilia. He has attended several executive educational programs at INSEAD (France), IMD (Switzerland), Sloan School of Management, MIT (USA), and a specialized course in financial programming and policy at the International Monetary Fund.

José Carlos Martins. Mr. Martins was appointed as our executive officer for ferrous minerals in April 2005. From April 2004 until March 2005, he was our executive officer for new business development. With more than 40 years of solid experience in the metal industry, he held, from 1986 until 1996, several important positions at Aços Villares, including the position of officer and later on chief executive officer. From 1997 to 1999, he was the executive officer for steel production of CSN. In 1999, he became president of Latasa, one of the largest producers of aluminum beverage cans of Latin America. When Rexam UK bought Latasa in 2003, he became the president of Rexam in South America for the aluminum can production and marketing. He holds a degree in economics from Pontifícia Universidade Católica in São Paulo.

Tito Botelho Martins. Mr. Martins was appointed Vale Inco s president and chief executive officer as of January 1, 2009, and continues to serve as our executive officer for non-ferrous minerals. He oversees our nickel, copper, aluminum and coal operations. He previously served as the executive officer for corporate affairs and energy. Prior to that, he served as the managing officer of the corporate finance department from August 1999 to September 2003. Previously, from 1985 to 1999, he held various positions in our financial departments. Mr. Martins was also the chief executive officer of CAEMI and chairman and chief executive officer of MBR from 2003 to 2006. As a result of his expertise in the fields of administration and finance, Mr. Martins has been a member of the board of directors of several corporations both in Brazil and abroad, including Fundação Vale do Rio Doce de Seguridade Social (Valia),

FCA, Samarco Mineração S.A., FERROBAN Ferrovias Bandeirantes S.A., Aço Minas Gerais S.A. (Açominas), Gulf Industrial Investment Company (GIIC) in Bahrain, Itabrasco and Hispanobras. He is the chairman of the boards of

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directors of MRN, Alunorte and Albras. Mr. Martins holds a degree in economics from the Universidade Federal de Minas Gerais and a master s degree in management from the Universidade Federal do Rio de Janeiro. He has attended executive education programs at INSEAD, France, and at the Kellogg School of Management of Northwestern University.

FISCAL COUNCIL

Under Brazilian corporate law, corporations may have a fiscal council, a corporate body whose members are elected by shareholders and are independent of our management and external auditors. The primary responsibility of the fiscal council under Brazilian corporate law is to monitor management s activities and review the financial statements, reporting its findings to the shareholders. We have established a permanent fiscal council, which may have from three to five members. In addition, Vale s bylaws have empowered our Fiscal Council to take responsibility for additional matters as described below.

In compliance with the listed company audit committee rules of the NYSE and the SEC, effective July 31, 2005, we have designated and empowered our Fiscal Council to perform the role of the audit committee in reliance on the exemption set forth in Exchange Act Rule 10A-3(c)(3). This measure was undertaken pursuant to an amendment to our bylaws approved by the shareholders on July 19, 2005.

Under our bylaws, our Fiscal Council is responsible for establishing procedures for the receipt, retention and treatment of any complaints related to accounting, controls and audit issues, as well as procedures for the confidential, anonymous submission of concerns regarding such matters; recommending and assisting our Board of Directors in the appointment, establishment of compensation and dismissal of the independent auditors; pre-approving the services to be rendered by our independent auditors; and overseeing the work performed by the external auditors, with powers to suspend the payment of compensation to the independent auditors and to resolve disagreements between management and the auditors regarding financial reporting.

The members of our Fiscal Council must meet applicable eligibility requirements under Brazilian corporate law. A member of our Fiscal Council cannot (i) hold office as a member of the Board of Directors, fiscal council or advisory committee of any company that competes with Vale or otherwise has conflicting interests with Vale, unless compliance with this requirement is expressly waived by a decision taken by the shareholders in a shareholders meeting, (ii) be an employee or member of the management of Vale or its subsidiaries and affiliates, or (iii) be a spouse or relative within the third degree by affinity or consanguinity of an officer or director of Vale.

On April 16, 2009, the shareholders elected the current members of the Fiscal Council and their respective alternates. The members of the Fiscal Council are elected for one-year terms. Holders of preferred shares, including the golden shares, may elect one member of the Fiscal Council and the respective alternate. Minority holders of common shares comprising at least 10% of the common shares outstanding may also elect one member of the Fiscal Council and the respective alternate. The terms of the members of the Fiscal Council expire at the next annual shareholders meeting following their election. The following table lists the current members of the Fiscal Council.

	First year of appointment
Bernard Appy(1)	2006
Antônio José Figueiredo Ferreira(2)	2008
Marcelo Amaral Moraes(2)	2004
Aníbal Moreira dos Santos(2)	2005

(1) Appointed by the preferred shareholders.

(2) Appointed by Valepar.

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The following table lists the alternate members of the Fiscal Council.

	First year of appointment
Marcus Pereira Aucélio(1)	2008
Cícero da Silva(2)	2009
Oswaldo Mário Pêgo de Amorim Azevedo(2)	2004
Vacant	

(1) Appointed by the preferred shareholders.

(2) Appointed by Valepar.

We have summarized below the experience, areas of expertise, and principal outside business interests of the current members of our Fiscal Council.

Bernard Appy. Mr. Appy was elected as a member of our Fiscal Council in April 2006. Since August 2008, he has served as secretary for economic and fiscal reforms to the Brazilian Ministry of Finance. From January 2003 to May 2005 and from March 2006 to April 2007, he was deputy minister at the Brazilian Ministry of Finance. From May 2005 to March 2006 and from April 2007 to August 2008, he held the position of secretary for economic policies at the Ministry of Finance. Mr. Appy is a member of faculty of the economics department of Pontifícia Universidade Católica in São Paulo since 1997. From 1995 to 2002, he was a partner of LCA Consultores Ltda., a consulting firm in economics. Mr. Appy received a graduate degree in economics from the Universidade de São Paulo, and concluded a masters program in economics at the Universidade Estadual de Campinas.

Antônio José de Figueiredo Ferreira. Mr. Ferreira was appointed as a member of our Fiscal Council in April 2008. From May 2005 until April 2008, he was chairman of our accounting committee, (previously known as the audit committee). Mr. Ferreira worked for Banco do Brasil for 32 years, where he held positions in the audit and information technology areas. From 1996 until May 2007, Mr. Ferreira served as internal audit chief of Previ. Mr. Ferreira received a degree in mechanical engineering from the Universidade do Estado do Rio de Janeiro, and a law degree from the Universidade Federal do Rio de Janeiro. He also concluded an MBA in internal auditing at the Universidade de São Paulo and in finance and corporate law at Fundação Getúlio Vargas in Rio de Janeiro. Mr. Ferreira has also concluded an MBA in management and private pension programs from the Wharton School of the University of Pennsylvania.

Marcelo Amaral Moraes. Mr. Moraes has served as a member of our Fiscal Council since 2004. He joined Grupo Stratus in August 2006 as the officer responsible for specialized funds area. Prior to that, Mr. Moraes worked at Bradespar as an investment manager for six years. From 1995 to 2000, he worked in the mergers and acquisitions and capital markets departments of Banco Bozano, Simonsen. In 2004, he was an alternate member of the board of directors of Net Serviços S.A., and in 2003, he was an alternate member of our Board of Directors. Mr. Moraes has a graduate degree in economics from the Universidade Federal do Rio de Janeiro and an MBA from Universidade Federal do Rio de Janeiro/COPPEAD.

Aníbal Moreira dos Santos. Mr. Santos has served as a member of our Fiscal Council since 2005. He was an executive officer of Caemi Canada Inc., Caemi Canada Investments Inc., CMM Overseas, Ltd., Caemi International Holdings BV and Caemi International Investments NV, subsidiaries of Caemi from 1998 to 2003, when he retired. From 1983 to 2003, he was chief accounting officer of CAEMI. From 1999 to 2003, he was a member of the fiscal

council of CADAM S.A., and from 1998 to 2003, he was an alternate member of the board of directors of MBR and EBM. Mr. Santos has a degree in accounting from Fundação Getúlio Vargas.

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ADVISORY COMMITTEES

Advisory committees

Our bylaws establish the following technical and advisory committees to the Board of Directors.

The Executive Development Committee is responsible for reporting on general human resources policies, analyzing and reporting on the adequacy of compensation levels for our executive officers, proposing and updating guidelines for evaluating the performance of our executive officers, and reporting on policies relating to health and safety.

The Strategy Committee is responsible for reviewing and making recommendations to the Board of Directors concerning: the strategic guidelines and plan submitted annually to the board by our executive officers, our annual and multi-annual investment budgets, investment or divestiture opportunities submitted by executive officers, and mergers and acquisitions.

The Finance Committee is responsible for reviewing and making recommendations to the Board of Directors concerning: our corporate risks and financial policies and the internal financial control systems, compatibility between the level of distributions to shareholders and the parameters established in the annual budget, and the consistency between our general dividend policy and capital structure.

The Accounting Committee is responsible for: nominating an employee to be responsible for our internal auditing, reporting on auditing policies and the execution of our annual auditing plan, tracking the results of our internal auditing, and identifying, prioritizing, and submitting recommendations to the executive officers, and analyzing and making recommendations with regard to our annual report and financial statements.

The Governance and Sustainability Committee is responsible for: evaluating and recommending improvements to the effectiveness of our corporate governance practices and the functioning of our Board of Directors, recommending improvements to the code of ethical conduct and our management system in order to avoid conflicts of interests between Vale and its shareholders or management, issuing reports on potential conflicts of interest between Vale and its shareholders or management, and reporting on policies relating to corporate responsibility, such as environmental and social responsibility.

COMPENSATION OF DIRECTORS, EXECUTIVE OFFICERS, AND MEMBERS OF THE FISCAL COUNCIL AND ADVISORY COMMITTEES

General

Under our bylaws, our shareholders are responsible for establishing the aggregate compensation we pay to the members of our Board of Directors and our executive officers. Our shareholders determine this annual aggregate compensation at the general shareholders meeting each year. In order to establish aggregate director and officer compensation, our shareholders usually take into account various factors, which range from attributes, experience and skills of our directors and executive officers to the recent performance of our operations. Once aggregate compensation is established, the members of our Board of Directors are then responsible for distributing such aggregate compensation in compliance with our bylaws among the directors and executive officers, in the latter case, at the recommendation of the Chief Executive Officer. The Executive Development Committee of our Board of

Directors makes recommendations to the board concerning the annual aggregate compensation of the executive officers. In addition to fixed compensation, our executive officers are also eligible for bonuses and incentive payments.

For the year ended December 31, 2008, we paid US$33 million in aggregate to the executive officers, of which US$9 million was fixed compensation and US$24 million was variable compensation and benefits in kind granted, and US$0.9 million in aggregate to the members of our Board of Directors for services in all

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capacities, all of which was fixed compensation. The amounts accrued to provide pension, retirement or similar benefits for our executive officers was US$0.8 million. There are no similar benefits for the members of our Board of Directors.

As of March 31, 2009, the total number of common shares owned by our directors and executive officers was 158,535, and the total number of preferred shares owned by our directors and executive officers was 1,051,416. None of our directors or executive officers beneficially owns 1% or more of any class of our shares.

Fiscal Council

We paid an aggregate of US$475,400 to members of the Fiscal Council in 2008. In addition, the members of the Fiscal Council are reimbursed for travel expenses related to the performance of their functions.

Advisory committees

We paid an aggregate of US$148,900 to members of our advisory committees in 2008. Under article 15 of our bylaws, those members who are directors or officers of Vale are not entitled to additional compensation for participating on a committee. Members of our advisory committees are reimbursed for travel expenses related to the performance of their functions.

EMPLOYEES

General

The following table sets forth the number of our employees by category as of the dates indicated.

	At December 31,		
	2006	**2007**	**2008**
Ferrous minerals	21,143	21,700	23,859
Logistics	10,661	11,679	13,049
Non-ferrous minerals	18,126	20,955	22,902
Administrative	2,716	2,709	2,680
Total(1)	52,646	57,043	62,490

(1) The increase in the number of employees is mainly due to organic growth and the strategic decision to move in-house certain previously outsourced services.

Labor relations

We negotiate wages and benefits with a large number of unions worldwide that represent our employees. We have experienced strikes and work stoppages at our Voisey s Bay operations as recently as September 2006, at our Sudbury operations as recently as April 2007 and at our Indonesian operations as recently as November 2007. We have collective agreements with unionized employees at our Australian, Brazilian, Canadian, Indonesian, New Caledonian and U.K. operations.

Wages and benefits

Wages and benefits for Vale and its subsidiaries are generally established on a company-by-company basis. Vale establishes its wage and benefits programs for Vale and its subsidiaries other than Vale Inco in periodic negotiations with its unions. In November 2007, Vale reached a two-year agreement with the Brazilian unions, which is valid until November 2009. A salary increase of 7% was implemented in November 2008 for our employees in Brazil as part of a two-year agreement reached in 2007. The provisions of Vale s collective bargaining agreements with its unions also apply to Vale s non-unionized employees. Vale Inco establishes wages and benefits for unionized employees through collective agreements. For non-unionized employees, Vale Inco establishes its annual wage program in January of each year for all locations other than

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the U.K., which establishes its annual wage program in August. Vale and its subsidiaries provide their employees and their dependents with other benefits, including supplementary medical assistance.

Pension plans

Brazilian employees of Vale and of most of its Brazilian subsidiaries are eligible to participate in pension plans managed by Fundação Vale do Rio Doce de Seguridade Social (Valia). Sponsored by Vale and such subsidiaries, Valia is a closed, nonprofit, complementary social security foundation with financial and administrative autonomy. Most of the participants in plans held by Valia are participants in a plan named Vale Mais, which Valia implemented in May 2000. This plan is primarily a defined contribution plan with a defined benefit feature relating to service prior to May 2000 and another defined benefit feature relating to the risk coverage events such as temporary or permanent disability and death. Valia also holds the old plan which is a defined benefit plan, with benefits based on years of service, salary and social security benefits. This plan covers retired participants and their beneficiaries, as well as a relatively small number of employees that declined to transfer from the old plan to the Vale Mais plan when it was established in May 2000. Employees of Albras and Alunorte participate in different pension plans maintained by Bradesco Vida e Previdência S.A.

Vale Inco sponsors defined benefit pension plans principally in Canada, the United States, the United Kingdom and Indonesia. Each of the jurisdictions in which these plans is offered has legislation which, among other statutory requirements, cover minimum contributions to be made to these plans to meet their potential liabilities as calculated in accordance with such legislation. Effective January 1, 2009 the defined benefit plan for non-unionized staff employees in Canada was closed to new participants and effective February 1, 2009 the defined benefit plan in Indonesia was closed to new participants. A defined contribution plan will be introduced for new employees effective July 1, 2009, and existing employees will have the opportunity to elect to move from the defined benefit to the defined contribution plan effective January 1, 2010. Vale Inco s subsidiary, Vale Inco Newfoundland and Labrador Limited, has a defined contribution pension plan. In addition, Vale Inco provides supplemental retirement benefits arrangements for eligible employees.

Performance-based compensation

All Vale parent-company employees receive incentive compensation each year in an amount based on the performance of Vale, the performance of the employee s department and the performance of the individual employee. Similar incentive compensation arrangements are in place at our subsidiaries.

Certain Vale employees also receive deferred bonuses with vesting periods of three years based on Vale s performance as measured by total shareholder return relative to a group of peer companies over the vesting period. Since 2008, qualifying management personnel are eligible to participate in a bonus program tied to share ownership. Under the program, an employee may elect to invest part of his bonus in Vale shares. If the employee continues to be employed by us and to hold all the shares, after three years the employee will receive an additional bonus payment sufficient to purchase for his account, in the open market, a number of additional shares equal to the number of shares the employee purchased under the program. In 2008, 883 employees elected to participate in the program, and in 2009 1,144 employees elected to participate in the program.

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Item 7. ***Major shareholders and related party transactions***

MAJOR SHAREHOLDERS

Overview

Major Vale Shareholders. The following table sets forth certain information regarding beneficial ownership of our common and preferred shares as of March 31, 2009, by each person we know to be the beneficial owner of more than 5% of any class of our outstanding capital stock, and by all directors and executive officers as a group.

	Shares owned	% of class
Common shares		
Valepar(1)	1,716,435,045	52.7%
BNDESPAR(2)	218,386,481	6.7
Directors and executive officers as a group	158,535	*
Preferred shares(3)		
Directors and executive officers as a group	1,051,416	*
Golden shares		
Brazilian government	12	100%

(1) See the following table for more information on Valepar s shareholders. Because each of the shareholders of Valepar has the right to veto the transfer by Valepar of any shares it holds in Vale, each of the Valepar shareholders may be deemed a beneficial owner of the entire Valepar stake under the rules of the SEC. In general, a person who has or shares voting power or investment power with respect to securities is treated as a beneficial owner of those securities. This does not imply that the person has the economic or other benefits of ownership.

(2) Excludes common shares owned directly by Valepar, in which BNDESPAR has an ownership interest.

(3) The Brazilian government (National Treasury) owns, through Fundo Garantidor das Parcerias Público-Privadas, 60,904,092 preferred shares, representing 2.9% of the outstanding preferred shares, and BNDESPAR owns 8,528,679 preferred shares, representing 0.4% of the outstanding preferred shares.

(*) Represents less than 1% of the outstanding shares of the class.

Valepar shareholders. The tables below set forth information as of March 31, 2009 regarding share ownership of the common shares of Valepar and of its shareholder Litel Participações S.A.

	Number of Valepar common shares owned	Percent of Valepar common shares owned
Valepar		
Litel Participações S.A.(1)	637,443,857	49.00%
Eletron S.A.(2)	380,708	0.03
Bradespar S.A.(3)	275,965,821	21.21

Mitsui & Co. Ltd.(4)	237,328,059	18.24
BNDESPAR(5)	149,787,385	11.51
Total	1,300,905,830	100%

(1) Litel owns 200,864,272 preferred class A shares of Valepar, which represents 71.41% of the preferred class A shares. Litela, an affiliate of Litel, owns 80,416,931 preferred class A shares of Valepar, which represents 28.59% of the preferred class A shares. LitelB, also an affiliate of Litel, owns 25,862,068 preferred class C shares of Valepar, which represents 29.25% of the preferred class C shares.

(2) Elétron owns 32,729 preferred class C shares of Valepar, which represents 0.04% of the preferred class C shares.

(3) Bradespar is controlled by a control group consisting of Cidade de Deus Cia. Comercial Participações, Fundação Bradesco, NCF Participações S.A. and Nova Cidade de Deus Participações S.A. Bradespar owns 23,724,193 preferred class C shares of Valepar, which represents 26.83% of the preferred class C shares.

(4) Mitsui owns 20,402,587 preferred class C shares of Valepar, which represents 23.08% of the preferred class C shares.

(5) BNDESPAR owns 18,394,143 preferred class C shares of Valepar, which represents 20.80% of the preferred class C shares.

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	Number of Litel common shares owned	Percent of Litel common shares owned
Litel Participações S.A.(1)		
BB Carteira Ativa	193,740,121	78.40%
Carteira Ativa II	53,387,982	21.60%
Previ	19	0%
Others	219	–
Directors and executive officers as a group	4	–
Total	247,128,345	100%

(1) Each of BB Carteira Ativa and Carteira Ativa II is a Brazilian investment fund. BB Carteira Ativa is 100% owned by Previ. Carteira Ativa II is 59.36% owned by Funcef, 35.81% owned by Petros and 4.84% owned by Fundação Cesp. Each of Previ, Petros, Funcef and Fundação Cesp is a Brazilian pension fund.

Brazilian government holdings. In 1997, we were privatized by the Brazilian government, which sold its controlling interest to Valepar. The National Treasury and BNDES, the state-owned development bank, subsequently sold additional shares in 2002. Currently, BNDESPAR, a wholly-owned subsidiary of BNDES, owns common shares representing 6.7% of our outstanding common shares and 0.4% of our outstanding preferred shares. The Brazilian government now owns 2.9% of our outstanding preferred shares (not counting shares held by BNDESPAR), and 12 golden shares of Vale, which give it veto powers over certain actions that we could propose to take, such as changes to our name, the location of our headquarters and our corporate purpose as it relates to mining activities. For a detailed description of the veto powers granted to the Brazilian government by virtue of its ownership of the golden shares, see *Item 10. Additional information Common shares and preferred shares General*.

Controlling shareholder

Valepar S.A. is our controlling shareholder. The shareholders of Valepar are parties to a shareholders agreement, ending in 2017. This agreement:

grants rights of first refusal on any transfer of Valepar shares and preemptive rights on any new issue of Valepar shares;

prohibits the direct acquisition of Vale shares by Valepar s shareholders unless authorized by the other shareholders party to the agreement;

prohibits encumbrances on Valepar shares (other than in connection with financing an acquisition of Vale shares);

requires each party generally to retain control of its special purpose company holding its interest in shares of Valepar, unless the rights of first refusal mentioned above are observed;

allocates seats on Valepar s and Vale s boards among representatives of the parties;

commits the Valepar shareholders to support a Vale dividend policy of distributing 50% of Vale s net profit for each fiscal year, unless the Valepar shareholders commit to support a different dividend policy for a

given year;

provides for the maintenance by Vale of a capital structure that does not exceed specified debt to equity thresholds;

requires the Valepar shareholders to vote their indirectly held Vale shares and to cause their representatives on Vale s Board of Directors to vote only in accordance with decisions made at Valepar meetings held prior to meetings of Vale s Board of Directors or shareholders; and

establishes supermajority voting requirements for certain significant actions relating to Valepar and to Vale.

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Pursuant to the Valepar shareholders agreement, Valepar cannot support any of the following actions with respect to Vale without the consent of at least 75% of the holders of Valepar s common shares:

- any amendment of Vale s bylaws;
- any increase of Vale s capital stock by share subscription, creation of a new class of shares, change in the characteristics of the existing shares or any reduction of Vale s capital stock;
- any issuance of any debentures of Vale, whether convertible into shares of Vale, participation certificates upon compensation, call options or any other security of Vale;
- any determination of issuance price for any new shares of capital stock or other security of Vale;
- any amalgamation, spin-off or merger to which Vale is a party, as well as any change to Vale s corporate form;
- any dissolution, receivership, bankruptcy or any other voluntary act for financial reorganization or any suspension thereof;
- the election and replacement of Vale s Board of Directors, including the chairman of the board, and any executive officer of Vale;
- the disposal or acquisition by Vale of equity interest in any company, as well as the acquisition of any shares of capital stock of Vale or Valepar;
- the participation by Vale in a group of companies or in a consortium of any kind;
- the execution by Vale of agreements relating to distribution, investment, sales exportation, technology transfer, trademark license, patent exploration, license to use and leases;
- the approval and amendment of Vale s business plan;
- the determination of the compensation of the executive officers and directors of Vale, as well as the duties of the Board of Directors and the Board of Executive Officers;
- any profit sharing among the administrators of Vale;
- any change in the corporate purpose of Vale;
- the distribution or non-distribution of any dividends (including distributions classified as interest on shareholders equity) on any shares of capital stock of Vale other than as provided in Vale s bylaws;
- the appointment and replacement of Vale s independent auditor;
- the creation of any in rem guarantee, granting of guarantees including rendering of sureties by Vale with respect to obligations of any unrelated party, including any affiliates or subsidiaries;
- the passing of any resolution on any matter which, pursuant to applicable law, entitles a shareholder to withdrawal rights;

the appointment and replacement by the Board of Directors of any representative of Vale in subsidiaries, companies related to Vale or other companies in which Vale is entitled to appoint directors and officers; and

any change in the debt to equity threshold, as defined in the shareholders agreement.

In addition, the shareholders agreement provides that any issuance of participation certificates by Vale and any disposition by Valepar of Vale shares requires the unanimous consent of all of Valepar s shareholders.

American Depositary Shares

As of March 31, 2009, our ADSs represented 23.0% of our outstanding common shares and 37.7% of our outstanding preferred shares.

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RELATED PARTY TRANSACTIONS

We have arm s-length commercial relationships in the ordinary course of our business with Mitsui, a shareholder of Valepar (our controlling shareholder), and with a number of companies that are affiliated with shareholders of Valepar, such as Cemig and Usiminas (in each of which Previ holds an interest). We also have arm s-length commercial relationships in the ordinary course of our business with subsidiaries of companies on whose boards our CEO currently serves or has served as a director, such as Asea Brown Boveri and Petrobras.

BNDES is the parent company of one of our major shareholders, BNDESPAR. We and BNDES, the Brazilian state-owned development bank, are parties to a contract relating to authorizations for mining exploration. This contract, which we refer to as the Mineral Risk Contract, provides for the joint development of certain unexplored mineral deposits that form part of our Northern System (Carajás), as well as proportional participation in any profits earned from the development of such resources. Iron ore and manganese ore deposits already identified at the time we entered into the Mineral Risk Contract (in March 1997) were specifically excluded from the contract. In 2007, the Mineral Risk Contract was extended indefinitely, with specific rules for all exploration projects and exploration targets and mineral rights covered under the contract. In addition, BNDES has participated in certain of our financing arrangements. For more information on our transactions with BNDES, see *Item 5. Liquidity and capital resources Sources of funds*.

For information regarding investments in affiliated companies and joint ventures and for information regarding transactions with major related parties, see Notes 12 and 24 to our consolidated financial statements.

Item 8. *Financial information*

LEGAL PROCEEDINGS

We and our subsidiaries are defendants in numerous legal actions in the normal course of business, including civil, administrative, tax, social security and labor proceedings. See Note 20 to our consolidated financial statements.

CADE proceedings

The primary Brazilian antitrust regulator, *Conselho Administrativo de Defesa Econômica*, or CADE, conducts post-transaction reviews of nearly all of our acquisitions and joint ventures. In August 2005, CADE issued a decision in connection with its post-transaction review of our acquisitions of Mineração Socoimex S.A., Mineração Trindade-Samitri, Ferteco Mineração S.A., Belém-Administrações e Participações Ltda. and CAEMI Mineração e Metalurgia S.A., as well as the unwinding of our former cross-shareholdings with Companhia Siderúrgica Nacional (CSN). CADE approved these transactions subject to the condition that we either: (i) fully waive our preemptive rights relating to the Casa de Pedra iron ore mine and restructure our stake in MRS or (ii) sell all of our assets previously owned by Ferteco Mineração S.A., a company we acquired in 2001 and consolidated in August 2003. Pursuant to the conditions imposed by CADE on its approval of these transactions, we decided to waive our preemptive rights relating to the Casa de Pedra iron ore mine, and we restructured our stake in MRS. In April 2009, we signed an agreement with CSN pursuant to which we suspended for a period of 30 days our action against it to recover the value of the Casa de Pedra preemptive rights. The agreement provides that if during this period CSN and certain direct and indirect shareholders of Valepar (Previ, Litel and Bradespar), which agreed in 2000 to unwind their cross-shareholdings with CSN, execute an agreement that settles pending issues relating to the unwinding, then (i) we will formerly terminate our action against CSN, and (ii) CSN will grant us an option to suspend or terminate a 2005 contract pursuant to which CSN supplies us with iron ore from Casa de Pedra. If CSN and Previ, Litel and Bradespar

do not execute an agreement, then CSN may elect during an additional 30-day period to continue the agreement in effect with us. In January 2008, CADE fined us R$41 million (US$17.5 million) for 631 days of non-compliance with its decision, even though a valid injunction was in effect during that period. We filed an action with the federal circuit court to annul the penalty, which is pending.

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In two other proceedings, CADE is alleging that we have engaged in illegal anticompetitive conduct in connection with our logistics business. If CADE were to find that we have engaged in anticompetitive conduct, it could order us to cease the conduct and/or to pay fines.

Privatization-related suits

Numerous lawsuits challenging the legality of the minimum auction price fixed in our 1997 privatization are pending, including a number of class action lawsuits. The lower courts issued favorable decisions in these lawsuits, which were appealed by the respective plaintiffs. Certain cases were resolved in our favor by the higher courts. In the remaining cases, in which the plaintiffs have challenged the price paid for the controlling block of Vale and other aspects of the privatization, the higher courts overruled (in 2005) the lower courts and ordered that the proceedings be re-submitted to the lower courts to continue with discovery on the issue of the basis for establishing the minimum price in the privatization program. We have jointly appealed these decisions to the Brazilian Supreme Court (STJ). We do not believe that, individually or in the aggregate, these actions will adversely affect the outcome of the privatization process or otherwise have a material adverse effect on us.

Praia Mole suit

We were a defendant in a public civil action seeking to annul the concession agreement through which we and certain other defendants operate the Praia Mole maritime terminal in the Brazilian state of Espírito Santo. This case was decided in our favor in November 2007, but the plaintiff filed an appeal with the federal circuit court in April 2008, which is still pending.

Itabira suits

We are a defendant in two separate actions brought by the municipality of Itabira, in the Brazilian state of Minas Gerais. In one of the actions, filed in August 1996, the municipality of Itabira alleges that our Itabira iron ore mining operations have caused environmental and social damages and claims damages with respect to the degradation of the site of one of our mines, as well as the immediate restoration of the affected ecological complex and the performance of compensatory environmental programs in the region. The damages sought, as adjusted from the date of the claim, amount to approximately R$2.029 billion (US$868 million). In the other action, the municipality of Itabira is claiming the right to be reimbursed for expenses it has incurred in connection with public services rendered as a consequence of our mining activities. The damages sought, as adjusted from the date of the claim, amount to approximately R$2.350 billion (US$1.006 billion). We believe these suits are without merit.

CFEM-related proceedings

We are currently a defendant in a series of administrative and judicial proceedings brought by the National Mineral Production Department (Departamento Nacional de Produção Mineral), or DNPM, an agency of the Ministry of Mines and Energy of the Brazilian government. The most significant of these proceedings was brought against us in March 2006, alleging that we have failed to pay the full amount of a mining royalty, known as the CFEM, on revenues generated by our iron ore and manganese activities. (For details about the CFEM, see *Item 4. Information on the company Regulatory matters Mining regulation*.) We believe that the DNPM s allegations are without merit. The aggregate amount claimed in the administrative and judicial proceedings is approximately R$3.9 billion (US$1.7 billion).

We are a defendant in a judicial proceeding brought in 2002 by the Municipality of Mariana, alleging that we owe CFEM on our pelletization activities. We do not believe pelletization activities are subject to CFEM.

We are also involved in litigation with the DNPM regarding the applicable CFEM rate for potash. Brazilian legislation establishes a 2% rate for fertilizers. As the potash commercialized by Vale is used as fertilizer, we believe the applicable rate is 2%. The DNPM believes that the end-use of potash is irrelevant for purposes of determining the applicable rate and that the rate applicable to our potash products is 3%. For more information about the CFEM, see *Item 4. Information on the company Regulatory matters Mining regulation*.

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Tax litigation

As previously disclosed in the 2007 20-F, we are engaged in litigation with respect to Article 74 of the Brazilian Provisional Measure 2,158-34/2001, a tax regulation requiring payment of income tax in Brazil on net income from foreign subsidiaries. In 2003, we initiated a legal proceeding challenging the applicability of this regulation to us, on the basis of the following arguments: (i) Article 74 of the Provisional Measure is inconsistent with double taxation treaties between Brazil and the countries where certain of our subsidiaries are based; (ii) the Brazilian Tax Code prohibits the establishment of conditions on and timing of any tax assessment by means of a regulation such as Article 74 of the Provisional Measure; (iii) even if Article 74 of the Provisional Measure is valid, exchange gain and loss must be excluded from the net income of our foreign subsidiaries in the calculation of taxes owed (in accordance with new Brazilian accounting principles and IFRS; and (iv) the constitutional principle prohibiting retroactive application of tax laws would be violated if this regulation were applied to net income generated before December 2001. We did not obtain a favorable decision on the merits of the case, but we did obtain an injunction suspending our obligation to pay the disputed amounts. We appealed from the lower court decision in July 2005, and the injunction remains in effect pending the resolution of this appeal. The appeals court s decision on the merits is suspended until final resolution of a parallel lawsuit filed by the Brazilian Industry Association challenging the constitutionality of Article 74 of the Provisional Measure.

Meanwhile, the tax authorities filed two administrative proceedings claiming payment of R$10.997 billion (US$4.706 billion) from us, of which R$5.928 billion (US$2.536 billion) represents fines and interest for non-payment of taxes and the remainder of which represents unpaid income tax on the net income of our foreign subsidiaries. We have filed our answer to these proceedings. We believe the suits are without merit and are vigorously contesting them. In accordance with our criteria for establishing provisions, we have not made any provisions for these claims.

Valesul litigation

In accordance with a resolution of ANEEL, the Brazilian electricity regulatory agency, the electricity company of the state of Rio de Janeiro (LIGHT Serviços de Eletricidade S.A.) was authorized to charge certain larger consumers in Rio de Janeiro, including our aluminum subsidiary Valesul, several additional fees as part of the tariff for the use of the distribution system. Valesul began a challenge to the legality of this charge in January 2004 and obtained a favorable decision in June of that year. On appeal, this decision was overruled, in September 2004, and Valesul was required to resume making payments. The appeal to the STJ was unfavorable to Valesul.

Gold forward contracts

In 1988 and 1989, we entered into gold forward contracts with various Brazilian private pension funds. Under the terms of these contracts, settlement was permitted by either physical delivery or cash payment. In 1990, however, the Brazilian government passed a law prohibiting settlement by delivery, and the funds were consequently prohibited from settling other than in cash. During these years, Brazil experienced severe inflation, and beginning in 2005, some of the pension funds sued Vale, claiming that the inflation adjustment provided for in the contracts did not adequately compensate them for monetary losses arising from the government s measures to control inflation during this period. There are 11 such suits pending final court decisions.

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DISTRIBUTIONS

Under our dividend policy, our Board of Executive Officers proposes to our Board of Directors, no later than January 31 of each year, a minimum value, expressed in U.S. dollars, that will be distributed in that year to our shareholders. Distributions may be classified for tax purposes either as dividends or interest on shareholders equity, and references to dividends should be understood to include all distributions regardless of their tax classification, unless stated otherwise. We determine the minimum dividend payment in U.S. dollars, considering our expected free cash flow generation in the year of distribution. The proposal establishes two installments to be paid in the months of April and October of each year. Each installment is submitted to the Board of Directors at meetings in April and October. Once approved, dividends are converted into and paid in *reais* at prevailing exchange rates on the last business day before the board meetings in April and October of each year. The Board of Executive Officers can also propose to the Board of Directors, depending on the evolution of our cash flow performance, an additional payment to shareholders of an amount over and above the minimum dividend initially established.

For 2009, our Executive Officers Board, has proposed a minimum dividend of US$2.5 billion. Historically, we have paid the same amount on both common and preferred shares in accordance with our bylaws. The first installment of this dividend of US$1.250 billion is expected to be paid on April 30, 2009.

Under Brazilian law and our bylaws, we are required to distribute to our shareholders an annual amount equal to not less than 25% of the distributable amount, referred to as the mandatory dividend, unless the Board of Directors advises our shareholders at our shareholders meeting that payment of the mandatory dividend for the preceding year is inadvisable in light of our financial condition. For a discussion of dividend distribution provisions under Brazilian corporate law and our bylaws, see *Item 10. Additional information*.

Distributions classified for tax purposes as dividends which are paid to ADR holders and to non-resident shareholders will not be subject to Brazilian withholding tax, unless the distribution is paid from profits generated prior to December 31, 1995. These distributions will be subject to Brazilian withholding tax at varying rates. Distributions classified for tax purposes as interest on shareholders equity which are paid to ADR holders and to non-resident shareholders are currently subject to Brazilian withholding tax. See *Item 10. Additional information Taxation Brazilian tax considerations.*

By law, we are required to hold an annual shareholders meeting by April 30 of each year at which an annual dividend may be declared. Additionally, our Board of Directors may declare interim dividends. Under Brazilian corporate law, dividends are generally required to be paid to the holder of record on a dividend declaration date within 60 days following the date the dividend was declared, unless a shareholders resolution sets forth another date of payment, which, in either case, must occur prior to the end of the fiscal year in which the dividend was declared. A shareholder has a three-year period from the dividend payment date to claim dividends (or payments of interest on shareholders equity) in respect of its shares, after which we will have no liability for such payments. From 1997 to 2003, all distributions took the form of interest on shareholders equity. In each year since 2004, part of the distribution was made in the form of interest on shareholders equity and part as dividends. See *Item 10. Additional information Common shares and preferred shares Payments on shareholders equity*.

We make cash distributions on the common shares and preferred shares underlying the ADSs in *reais* to the custodian on behalf of the depositary. The custodian then converts such proceeds into U.S. dollars and transfers such U.S. dollars to be delivered to the depositary for distribution to holders of American Depositary Receipts. The depositary charges a fee of up to US$0.02 per ADS for each distribution. For more information on Brazilian tax policies regarding dividend distributions, see *Item 10. Additional information Taxation Brazilian tax considerations*.

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The following table sets forth the cash distributions we paid to holders of common shares and preferred shares for the periods indicated. Amounts have been restated to give effect to forward stock splits that we have carried out in subsequent periods. We have calculated U.S. dollar conversions using the commercial selling rate in effect on the date of payment. Amounts are stated before any applicable withholding tax.

Year	Payment date	*Reais* per share at payment date	U.S. dollars per share at payment date
2002	April 30	0.19	0.08
	December 10	0.22	0.06
2003	April 30	0.14	0.05
	October 31	0.29	0.10
2004	April 30	0.17	0.06
	October 29(1)	0.32	0.11
2005	April 29	0.28	0.11
	October 31(2)	0.39	0.18
2006	April 28(3)	0.29	0.14
	October 31(4)	0.29	0.14
2007	April 30(5)	0.35	0.17
	October 31(6)	0.39	0.22
2008	April 30(7)	0.44	0.26
	October 31(8)	0.65	0.30

(1) R$0.26 per share classified for tax purposes as interest on shareholders equity and R$0.06 per share classified as dividends.

(2) R$0.17 per share classified for tax purposes as interest on shareholders equity and R$0.22 per share classified as dividends.

(3) R$0.17 per share classified for tax purposes as interest on shareholders equity and R$0.12 per share classified as dividends.

(4) R$0.28 per share classified for tax purposes as interest on shareholders equity and R$0.01 per share classified as dividends.

(5) R$0.13 per share classified for tax purposes interest on shareholders equity and R$0.22 per share classified as dividends.

(6) R$0.38 per share classified as interest on shareholders equity and R$0.01 per share classified as dividends.

(7) R$0.24 per share classified as interest on shareholders equity and R$0.20 per share classified as dividends.

(8) R$0.51 per share classified as interest on shareholders equity and R$0.14 per share classified as dividends.

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Item 9. ***The offer and listing***

SHARE PRICE HISTORY

The following table sets forth trading information for our ADSs, as reported by the New York Stock Exchange and our shares, as reported by the BOVESPA, for the periods indicated. Share prices in the table have been adjusted to reflect stock splits.

	Reais **per common share**		***Reais*** **per preferred share**		**US$ per preferred ADS**		**US$ per common ADS**	
	High	**Low**	**High**	**Low**	**High**	**Low**	**High**	**Low**
2003	14.24	6.74	12.34	6.46	4.33	2.03	4.97	2.15
2004	19.38	10.84	16.05	9.42	6.10	3.03	7.26	3.52
2005	24.98	16.00	21.75	13.75	9.89	5.49	11.27	6.40
2006	32.50	21.86	27.50	18.55	13.13	8.05	15.17	9.88
2007	65.90	29.40	55.62	25.42	31.59	11.83	37.75	13.76
1Q	38.58	29.40	32.95	25.42	15.91	11.83	18.80	13.76
2Q	45.35	38.10	37.95	32.08	19.98	15.78	23.78	18.69
3Q	63.00	40.01	52.87	33.67	28.58	15.73	33.98	19.11
4Q	65.90	56.60	55.62	47.60	31.59	25.80	37.75	31.00
2008								
1Q	62.50	45.00	52.50	40.61	31.22	23.90	37.22	26.57
2Q	72.09	55.44	58.70	46.75	35.84	28.61	43.91	34.44
3Q	55.01	33.80	46.04	30.30	28.56	15.32	34.50	16.70
4Q	36.39	22.10	32.70	20.24	17.70	7.95	18.61	8.80
1Q 2009	38.75	27.69	32.48	23.89	14.70	10.36	17.70	11.90
December 2008	30.30	23.55	26.39	21.50	11.67	8.72	13.57	9.65
January 2009	33.94	27.69	29.37	23.89	13.21	10.56	15.11	11.90
February 2009	38.75	30.50	32.48	26.51	14.70	10.36	17.70	12.00
March 2009	33.32	29.12	28.40	25.25	12.78	10.40	14.96	11.94
April 2009(1)	35.89	31.50	30.42	27.05	13.97	11.93	16.37	13.82

(1) Until April 16, 2009.

TRADING MARKETS

Our publicly traded share capital consists of common shares and preferred shares, each without par value. Our common shares and our preferred shares are publicly traded in Brazil on the BOVESPA, under the ticker symbols VALE3 and VALE5, respectively. Our common shares and preferred shares also trade on the LATIBEX, under the ticker symbols XVALO and XVALP, respectively. The LATIBEX is a non-regulated electronic market created in 1999 by the Madrid stock exchange in order to enable trading of Latin American equity securities.

Our common ADSs, each representing one common share, are traded on the New York Stock Exchange (NYSE), under the ticker symbol RIO. Our preferred ADSs, each representing one preferred share, are traded on the NYSE, under the ticker symbol RIOPR. Our common ADSs and preferred ADSs are traded on Euronext Paris, under the ticker symbols VALE3 and VALE5, respectively. JPMorgan Chase Bank serves as the depositary for both the

common and the preferred ADSs.

On March 31, 2009, there were 1,542,052,176 ADSs outstanding, representing 37.7% of our preferred shares and 23.0% of our common shares, or 28.7% of our total share capital.

Item 10. ***Additional information***

Vale s legal name is Companhia Vale do Rio Doce. Vale is a stock corporation, or *sociedade por ações*, duly organized on January 11, 1943, and existing under the laws of the Federative Republic of Brazil. Vale

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was privatized in three stages between 1997 and 2002, beginning with the sale by the Brazilian government of a controlling stake in Vale to Valepar in 1997. The last stage of the privatization process took place in 2002, when the Brazilian government sold its remaining minority stake of common shares through a global equity offering. Vale is organized for an unlimited period of time. Its head offices are located at Avenida Graça Aranha, No. 26, 20030-900 Rio de Janeiro, RJ, Brazil, and its telephone number is 55-21-3814-4477.

MEMORANDUM AND ARTICLES OF ASSOCIATION

Company objectives and purposes

Our corporate purpose is defined by our bylaws to include:

- the exploitation of mineral deposits in Brazil and abroad by means of extraction, processing, industrialization, transportation, shipment and commerce of mineral goods;
- the building and operation of railways and the exploitation of own or unrelated-party rail traffic;
- the building and operation of our own or unrelated-party maritime terminals, and the exploitation of nautical activities for the provision of support within the harbor;
- the provision of logistics services integrated with cargo transport, comprising generation, storage, transshipment, distribution and delivery within the context of a multimodal transport system;
- the production, processing, transport, industrialization and commerce of all and any source and form of energy, also involving activities of production, generation, transmission, distribution and commerce of its products, derivatives and sub products;
- the carrying-on, in Brazil or abroad, of other activities that may be of direct or indirect consequence for the achievement of its corporate purpose, including research, industrialization, purchase and sale, importation and exportation, the exploitation, industrialization and commerce of forest resources and the provision of services of any kind whatsoever; and
- constituting or participating in any fashion in other companies, consortia or associations directly or indirectly related to its business purpose.

Directors powers

Under Brazilian corporate law, if a director or an executive officer has a conflict of interest with the company in connection with any proposed transaction, the director or executive officer may not vote in any decision of the board of directors or of the board of executive officers regarding such transaction and must disclose the nature and extent of the conflicting interest for transcription in the minutes of the meeting. In any case, a director or an executive officer may not transact any business with the company, including any borrowings, except on reasonable or fair terms and conditions that are identical to the terms and conditions prevailing in the market or offered by unrelated parties. Under our bylaws, shareholders set the aggregate compensation payable to directors and executive officers. The Board of Directors allocates the compensation among its members and the executive officers. See *Item 6. Directors, management and employees Compensation.* Our bylaws do not establish any mandatory retirement age limits.

COMMON SHARES AND PREFERRED SHARES

Set forth below is certain information concerning our authorized and issued share capital and a brief summary of certain significant provisions of our bylaws and the Brazilian corporate law. This description does not purport to be complete and is qualified by reference to our bylaws (an English translation of which has been filed with the SEC) and to the Brazilian corporate law.

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General

Our bylaws authorize the issuance of up to 3.6 billion common shares and up to 7.2 billion preferred shares, in each case based solely on the approval of the Board of Directors without any additional shareholder approval.

Each common share entitles the holder thereof to one vote at meetings of our shareholders. Holders of common shares are not entitled to any preference relating to our dividends or other distributions.

Holders of preferred shares and the golden shares are generally entitled to the same voting rights as holders of common shares, except with respect to the election of members of the Board of Directors, and are entitled to a minimum annual non-cumulative preferential dividend of (i) at least 3% of the book value per share, calculated in accordance with the financial statements, which serve as reference for the payment of dividends, or (ii) 6% of their pro rata share of our paid-in capital, whichever is higher. Non-controlling shareholders holding common shares representing at least 15% of our voting capital, and preferred shares representing at least 10% of our total share capital, have the right to appoint each one member and an alternate to our Board of Directors. If no group of common or preferred shareholders meets the thresholds described above, shareholders holding preferred or common shares representing at least 10% of our total share capital are entitled to combine their holdings to appoint one member and an alternate to our Board of Directors. Holders of preferred shares, including the golden shares, may elect one member of the permanent Fiscal Council and the respective alternate. Non-controlling holders of common shares comprising at least 10% of the common shares outstanding may also elect one member of the Fiscal Council and an alternate.

The Brazilian government holds 12 golden shares of Vale. The golden shares are preferred shares that entitle its holder to the same rights (including with respect to voting and dividend preference) as holders of preferred shares. In addition, the holder of the golden shares is entitled to veto any proposed action relating to the following matters:

(1) a change in our name;

(2) a change in the location of our head office;

(3) a change in our corporate purpose as regards the mining activities;

(4) any liquidation of our company;

(5) any disposal or winding up of activities of any one or more of the following stages of our iron ore mining integrated systems:

  (a) mineral deposits, ore deposits, mines;

  (b) railways; or

  (c) ports and maritime terminals;

(6) any change in the bylaws relating to the rights accorded to the classes of capital stock issued by us; and

(7) any change in the bylaws relating to the rights accorded the golden shares.

Calculation of distributable amount

At each annual shareholders meeting, the Board of Directors is required to recommend, based on the executive officers proposal, how to allocate our earnings for the preceding fiscal year. For purposes of the Brazilian corporate law, a company s net income after income taxes and social contribution taxes for such fiscal year, net of any accumulated losses from prior fiscal years and amounts allocated to employees and management s participation in earnings represents its net profits for such fiscal year. In accordance with the Brazilian corporate law, an amount equal to our net profits, as further reduced by amounts allocated to the legal reserve, to the contingency reserve or to the unrealized income reserve established by us in compliance

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with applicable law (discussed below) and increased by reversals of reserves constituted in prior years, will be available for distribution to shareholders in any particular year. Such amount, the adjusted net profits, is herein referred to as the distributable amount. We may also establish discretionary reserves, reserves for investment projects and fiscal investment reserves, as discussed below.

Legal reserve. Under Brazilian corporate law, we are required to maintain a legal reserve to which we must allocate 5% of our net profits for each fiscal year until the amount of the reserve equals 20% of our paid-in capital. Capital increases and net losses, if any, may be charged against the legal reserve.

Depletion reserve. Our bylaws provide for one depletion reserve, which has not been used since 1996, when the related tax incentive expired.

Reserve for investment in projects. Under Brazilian corporate law, we may allocate a portion of our net profits to discretionary appropriations for plant expansion and other capital investment projects. Our bylaws provide for a reserve for investment in projects, but whenever the amount allocated to this reserve exceeds 50% of distributable net profits, such allocation has to be based on a capital budget approved by shareholders. Capital budgets with a duration longer than one year must be reviewed at each annual shareholders meeting. After completion of the relevant capital projects, we may retain the appropriation until our shareholders vote to transfer all or a portion of the reserve to capital or retained earnings.

Contingency reserve. Under Brazilian corporate law, a portion of our net profits may also be discretionally allocated to a contingency reserve for an anticipated loss of an estimated amount that is deemed probable in future years. Any amount so allocated in a prior year must be either reversed in the fiscal year in which the loss was anticipated if such loss does not in fact occur or charged off in the event that the anticipated loss occurs. We have never allocated an amount to the contingency reserve.

Unrealized income reserve. Under Brazilian corporate law, the amount by which the mandatory dividend exceeds the realized portion of net profits for any particular year may be allocated to the unrealized income reserve. The realized portion of net profits is the amount by which net profits exceed the sum of: (i) our net positive results, if any, from the equity method of accounting for earnings and losses of our subsidiaries and certain affiliates, and (ii) the profits, income or net gains obtained on transactions, or the accounting for assets and liabilities at market value, where the financial realization occurs after the end of the following fiscal year.

Tax incentive investment reserve. Under Brazilian corporate law, a portion of net profits may also be allocated to a general tax incentive investment reserve in amounts corresponding to reductions in our income tax generated by credits for particular government-approved investments.

The Brazilian corporate law provides that all discretionary allocations of net profits, including discretionary reserves, the contingency reserve, the unrealized income reserve and the reserve for investment projects, are subject to approval by the shareholders voting at the annual meeting and can be transferred to capital or used for the payment of dividends in subsequent years. The fiscal incentive investment reserve and legal reserve are also subject to approval by the shareholders voting at the annual meeting and may be transferred to capital but are not available for the payment of dividends in subsequent years.

The sum of the legal reserve, the depletion reserve and the reserve for investment in projects may not exceed the amount of our paid-in capital. When such limit is reached, our shareholders may vote to use the excess to pay in capital, increase capital or distribute dividends.

Our calculation of net profits and allocations to reserves for any fiscal year are determined on the basis of financial statements prepared in accordance with Brazilian corporate law. Our consolidated financial statements have been prepared in accordance with U.S. GAAP and, although our allocations to reserves and dividends will be reflected in these financial statements, investors will not be able to calculate such allocations or required dividend amounts from our consolidated financial statements.

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Mandatory dividend

Brazilian corporate law and our bylaws prescribe that we must distribute to our shareholders in the form of dividends or interest on shareholders equity an annual amount equal to not less than 25% of the distributable amount, referred to as the mandatory dividend, unless the Board of Directors advises our shareholders at our general shareholders meeting that payment of the mandatory dividend for the preceding year is inadvisable in light of our financial condition. To date, our Board of Directors has never determined that payment of the mandatory dividend was inadvisable. The Fiscal Council must review any such determination and report it to the shareholders. In addition to the mandatory dividend, our Board of Directors may recommend to the shareholders payment of dividends from other funds legally available therefore. Any payment of interim dividends will be netted against the amount of the mandatory dividend for that fiscal year. The shareholders must also approve the recommendation of the Board of Directors with respect to any required distribution. The amount of the mandatory dividend is subject to the size of the legal reserve, the contingency reserve, and the unrealized income reserve. The amount of the mandatory dividend is not subject to the size of the discretionary depletion reserve. See *Item 10. Additional information Common shares and preferred shares Calculation of distributable amount*.

Dividend preference of preferred shares

Pursuant to our bylaws, holders of preferred shares and the golden shares are entitled to a minimum annual non-cumulative preferential dividend equal to (i) at least 3% of the book value per share, calculated in accordance with the financial statements which serve as reference for the payment of dividends, or (ii) 6% of their pro rata share of our paid-in capital, whichever is higher. To the extent that we declare dividends in any particular year in amounts which exceed the preferential dividends on preferred shares, and after holders of common shares have received distributions equivalent, on a per share basis, to the preferential dividends on preferred shares, holders of common shares and preferred shares shall receive the same additional dividend amount per share. Since the first step of our privatization in 1997, we have had sufficient distributable amounts to be able to distribute equal amounts to both common and preferred shareholders.

Other matters relating to our preferred shares

Our bylaws do not provide for the conversion of preferred shares into common shares. In addition, the preferred shares do not have any preference upon our liquidation and there are no redemption provisions associated with the preferred shares.

Distributions classified as shareholders equity

Pursuant to a change in Brazilian tax law effective January 1, 1996, Brazilian companies are permitted to pay limited amounts to shareholders and treat such payments as an expense for Brazilian income tax purposes. In accordance with Law No. 9,249 dated December 26, 1995, our bylaws provide for the distribution of interest on shareholders equity as an alternative form of payment to shareholders. The interest rate applied is limited to the Brazilian long-term interest rate, or TJLP, for the applicable period. The deduction of the amount of interest paid cannot exceed the greater of (1) 50% of net income (after the deduction of the provision of social contribution on net profits and before the deduction of the provision of the corporate income tax) before taking into account any such distribution for the period in respect of which the payment is made or (2) 50% of the sum of retained earnings and profit reserves. Any payment of interest on shareholders equity to shareholders is subject to Brazilian withholding income tax at the rate of 15%, except for a beneficiary located in a tax haven jurisdiction (*i.e.* a country that does not impose income tax or that imposes it at a maximum rate lower than 20%), in which case the rate is 25%. Under our bylaws, the amount paid to shareholders as interest on shareholders equity (net of any withholding tax) may be included as part of any mandatory and minimum dividend. Under Brazilian corporate law, we are obligated to distribute to shareholders an amount

sufficient to ensure that the net amount received, after payment by us of applicable Brazilian withholding taxes in respect of the distribution of interest on shareholders equity, is at least equal to the mandatory dividend.

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Mandatorily convertible notes

In 2007, our wholly-owned subsidiary Vale Capital Limited issued mandatorily convertible notes in two series, both due June 15, 2010. The series RIO notes (US$1.296 billion principal amount) are mandatorily convertible into ADSs representing an aggregate maximum of 56,582,040 common shares. The series RIO P notes (US$584 million principal amount) are mandatorily convertible into ADSs representing an aggregate maximum of 30,295,456 preferred shares. Both series can convert before maturity under specified circumstances. The conversion rate for both series will depend on the market price of the ADSs on the conversion date. Under the indentures governing the notes, additional interest is due to each noteholder in an amount in U.S. dollars equal to any cash distribution net of any applicable withholding tax and fees paid by the Depositary of our ADSs to the holder of one ADS, multiplied by the number of ADSs that would be received by the noteholder upon conversion of the notes at the conversion rate specified in the applicable indenture.

Voting rights

Each common share entitles the holder thereof to one vote at meetings of our shareholders. Holders of preferred shares are entitled to the same voting rights as holders of common shares except that they may not vote on the election of members of the Board of Directors, except in the event of dividend arrearages, as described below. One of the members of the permanent Fiscal Council and his or her alternate are elected by majority vote of the holders of preferred shares. Holders of preferred shares and common shares may, in certain circumstances, combine their respective holdings to elect members of our Board of Directors, as described under *Item 10. Additional information Common shares and preferred shares General*.

The golden shares entitle the holder thereof to the same voting rights as holders of preferred shares. The golden shares also confer certain other significant voting rights in respect of particular actions, as described under *Item 10. Additional information Common shares and preferred shares General*.

Brazilian corporate law provides that non-voting or restricted-voting shares, such as the preferred shares, acquire unrestricted voting rights beginning when a company has failed for three consecutive fiscal years (or for any shorter period set forth in a company s constituent documents) to pay any fixed or minimum dividend to which such shares are entitled and continuing until payment thereof is made. Our bylaws do not set forth any such shorter period.

Any change in the preferences or advantages of our preferred shares, or the creation of a class of shares having priority over the preferred shares, would require the approval of the holder of the golden shares, who can veto such matters, as well as the approval of the holders of a majority of the outstanding preferred shares, voting as a class at a special meeting.

Shareholders meetings

A general shareholders meeting convenes each year to decide all matters relating to our corporate purposes and to pass such resolutions as they deem necessary for our protection and well being.

Pursuant to Brazilian corporate law, shareholders voting at a general shareholders meeting have the power, among other powers, to:

- amend the bylaws;
- elect or dismiss members of the Board of Directors and members of the Fiscal Council at any time;

establish the remuneration of senior management and members of the Fiscal Council;

receive annual reports by management and accept or reject management s financial statements and recommendations including the allocation of net profits and the distributable amount for payment of the mandatory dividend and allocation to the various reserve accounts;

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authorize the issuance of convertible and secured debentures;

suspend the rights of a shareholder in default of obligations established by law or by the bylaws;

accept or reject the valuation of assets contributed by a shareholder in consideration for issuance of capital stock;

pass resolutions to reorganize our legal form, to merge, consolidate or split us, to dissolve and liquidate us, to elect and dismiss our liquidators and to examine their accounts; and

authorize management to file for bankruptcy or to request a *concordata.*

All shareholders meetings, including the annual shareholders meeting, are convened by publishing, no fewer than 15 days prior to the scheduled meeting date and no fewer than three times, a notice in the *Diário Oficial do Estado do Rio de Janeiro* and in a newspaper with general circulation in the city where we have our registered office, in Rio de Janeiro. Our shareholders have previously designated *Jornal do Commercio* for this purpose. Also, as our shares are traded on the BOVESPA, we must publish a notice in a São Paulo based newspaper. Such notice must contain the agenda for the meeting and, in the case of an amendment to our bylaws, an indication of the subject matter. In addition, under our bylaws, the holder of the golden shares is entitled to a minimum of 15 days prior formal notice to its legal representative of any general shareholders meeting to consider any proposed action subject to the veto rights accorded to the golden shares. See *Item 10. Additional information Common shares and preferred shares General*.

A shareholders meeting may be held if shareholders representing at least one-quarter of the voting capital are present except for meetings convened to amend our bylaws, which require a quorum of at least two-thirds of the voting capital. If no such quorum is present, notice must again be given in the same manner as described above except for the eight-days prior notice, and a meeting may then be convened without any specific quorum requirement, subject to the minimum quorum and voting requirements for certain matters, as discussed below. A shareholder without a right to vote may attend a general shareholders meeting and take part in the discussion of matters submitted for consideration.

Except as otherwise provided by law, resolutions of a shareholders meeting are passed by a simple majority vote, abstentions not being taken into account. Under Brazilian corporate law, the approval of shareholders representing at least one-half of the issued and outstanding voting shares is required for the types of action described below, as well as, in the case of clause (a) and clause (b), a majority of issued and outstanding shares of the affected class:

(a) creating a new class of preferred shares or disproportionately increasing an existing class of preferred shares relative to the other classes of shares, other than to the extent permitted by the bylaws;

(b) changing a priority, preference, right, privilege or condition of redemption or amortization of any class of preferred shares or creating any class of non-voting preferred shares that has a priority, preference, right, condition or redemption or amortization superior to an existing class of shares, such as the preferred shares;

(c) reducing the mandatory dividend;

(d) changing the corporate purposes;

(e) merging us with another company or consolidating or splitting us;

(f) dissolving or liquidating us;

(g) participating in a centralized group of companies as defined under Brazilian corporate law; and

(h) canceling any ongoing liquidation of us.

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Whenever the shares of any class of capital stock are entitled to vote, each share is entitled to one vote. Annual shareholders meetings must be held by April 30 of each year. Shareholders meetings are called, convened and presided over by the chairman or by the vice-chairman of our Board of Directors. A shareholder may be represented at a general shareholders meeting by an attorney-in-fact appointed not more than one year before the meeting, who must be a shareholder, a company officer or a lawyer. For a public company, such as us, the attorney-in-fact may also be a financial institution.

Redemption rights

Our common shares and preferred shares are not redeemable, except that a dissenting shareholder is entitled under Brazilian corporate law to obtain redemption upon a decision made at a shareholders meeting by shareholders representing at least 50% of the voting shares:

(1) to create a new class of preferred shares or to disproportionately increase an existing class of preferred shares relative to the other classes of shares (unless such actions are provided for or authorized by the bylaws);

(2) to modify a preference, privilege or condition of redemption or amortization conferred on one or more classes of preferred shares, or to create a new class with greater privileges than the existing classes of preferred shares;

(3) to reduce the mandatory distribution of dividends;

(4) to change our corporate purposes;

(5) to merge us with another company or consolidate us;

(6) to transfer all of our shares to another company in order to make us a wholly-owned subsidiary of such company, a stock merger;

(7) to approve the acquisition of control of another company at a price which exceeds certain limits set forth in Brazilian corporate law;

(8) to approve our participation in a centralized group of companies as defined under Brazilian corporate law; or

(9) in the event that the entity resulting from (a) a merger, (b) a stock merger as described in clause (6) above or (c) a spin-off that we conduct fails to become a listed company within 120 days of the general shareholders meeting at which such decision was taken.

Only holders of shares adversely affected by the changes mentioned in items (1) and (2) above may require us to redeem their shares. The right of redemption mentioned in items (5), (6) and (8) above may only be exercised if our shares do not satisfy certain tests of liquidity at the time of the shareholder resolution. The right of redemption lapses 30 days after publication of the minutes of the relevant general shareholders meeting, unless, in the case of items (1) and (2) above, the resolution is subject to confirmation by the preferred shareholders (which must be made at a special meeting to be held within one year), in which case the 30-day term is counted from the publication of the minutes of the special meeting.

We would be entitled to reconsider any action giving rise to redemption rights within 10 days following the expiration of such rights if the redemption of shares of dissenting shareholders would jeopardize our financial stability. Law No. 9,457, dated May 5, 1997, which amended the Brazilian corporate law, contains provisions, which, among other

provisions, restrict redemption rights in certain cases and allow companies to redeem their shares at their economic value, subject to certain requirements. Our bylaws currently do not provide that our capital stock will be redeemable at its economic value and, consequently, any redemption pursuant to Brazilian corporate law would be made at no less than the book value per share, determined on the basis of the last balance sheet approved by the shareholders; *provided* that if the general shareholders meeting giving rise to redemption rights occurred more than 60 days after the date of the last approved

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balance sheet, a shareholder would be entitled to demand that his or her shares be valued on the basis of a new balance sheet dated within 60 days of such general shareholders meeting.

Preemptive rights

Each of our shareholders has a general preemptive right to subscribe for shares in any capital increase, in proportion to his or her shareholding. A minimum period of 30 days following the publication of notice of a capital increase is assured for the exercise of the right, and the right is negotiable. Under our bylaws and Brazilian corporate law, our Board of Directors may decide not to extend preemptive rights to our shareholders, or to reduce the 30-day period for the exercise of preemptive rights, in each case with respect to any issuance of shares, debentures convertible into shares or warrants in the context of a public offering, subject to the limit on the number of shares that may be issued with the approval of the board without any additional shareholder approval. In the event of a capital increase that would maintain or increase the proportion of capital represented by preferred shares, holders of preferred American Depositary Receipts will have preemptive rights to subscribe only to newly issued preferred shares. In the event of a capital increase that would reduce the proportion of capital represented by preferred shares, shareholders will have preemptive rights to subscribe for preferred shares, in proportion to their shareholdings, and for common shares only to the extent necessary to prevent dilution of their overall interest in us. In the event of a capital increase that would maintain or increase the proportion of capital represented by common shares, shareholders will have preemptive rights to subscribe only to newly issued common shares. In the event of a capital increase that would reduce the proportion of capital represented by common shares, holders of common shares will have preemptive rights to subscribe for preferred shares only to the extent necessary to prevent dilution of their overall interest in us.

Tag-along rights

According to Brazilian corporate law, in the event of a sale of control of a company, the acquirer is obliged to offer to holders of common voting shares the right to sell their shares for a price equal to at least 80% of the price paid for the common voting shares representing control.

Form and transfer

Our preferred shares and common shares are in book-entry form registered in the name of each shareholder or its nominee. The transfer of such shares is made under Brazilian corporate law, which provides that a transfer of shares is effected by our transfer agent, Banco Bradesco S.A., upon presentation of valid share transfer instructions to us by a transferor or its representative. When preferred shares or common shares are acquired or sold on a Brazilian stock exchange, the transfer is effected on the records of our transfer agent by a representative of a brokerage firm or the stock exchange s clearing system. Transfers of shares by a foreign investor are made in the same way and are executed by the investor s local agent, who is also responsible for updating the information relating to the foreign investment furnished to the Central Bank.

The BOVESPA operates a central clearing system through *Companhia Brasileira de Liquidação e Custódia*, or CBLC. A holder of our shares may participate in this system and all shares elected to be put into the system will be deposited in custody with CBLC (through a Brazilian institution that is duly authorized to operate by the Central Bank and maintains a clearing account with CBLC). The fact that such shares are subject to custody with the relevant stock exchange will be reflected in our registry of shareholders. Each participating shareholder will, in turn, be registered in the register of our beneficial shareholders that is maintained by CBLC and will be treated in the same way as registered shareholders.

MATERIAL CONTRACTS

For information concerning our material contracts, see *Item 4. Information on the company*, *Item 5. Operating and financial review and prospects*, and *Item 7. Related party transactions.*

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EXCHANGE CONTROLS AND OTHER LIMITATIONS AFFECTING SECURITY HOLDERS

There are no restrictions on ownership of our capital stock by individuals or legal entities domiciled outside Brazil. However, the right to convert dividend payments and proceeds from the sale of preferred shares or common shares into foreign currency and to remit such amounts outside Brazil is subject to restrictions under foreign investment legislation which generally requires, among other things, that the relevant investment be registered with the Central Bank of Brazil. These restrictions on the remittance of foreign capital abroad could hinder or prevent the custodian for the preferred shares or common shares represented by ADSs, or holders who have exchanged ADSs for preferred shares or common shares, from converting dividends, distributions or the proceeds from any sale of preferred shares or common shares, as the case may be, into U.S. dollars and remitting such U.S. dollars abroad. Delays in, or refusal to grant any required government approval for conversions of Brazilian currency payments and remittances abroad of amounts owed to holders of ADSs could adversely affect holders of ADRs.

Under Resolution No. 2,689/2000, foreign investors may invest in almost all financial assets and engage in almost all transactions available in the Brazilian financial and capital markets, provided that certain requirements are fulfilled. In accordance with Resolution No. 2,689/2000, the definition of foreign investor includes individuals, legal entities, mutual funds and other collective investment entities, domiciled or headquartered outside Brazil.

Under Resolution No. 2,689/2000, a foreign investor must:

appoint at least one representative in Brazil, with powers to perform actions relating to its investment,

complete the appropriate foreign investor registration form,

register as a foreign investor with the CVM, and

register its foreign investment with the Central Bank.

Securities and other financial assets held by foreign investors pursuant to Resolution No. 2,689/2000 must be registered or maintained in deposit accounts or under the custody of an entity duly licensed by the Central Bank or the CVM. In addition, securities trading is restricted to transactions carried out on stock exchanges or through organized over-the-counter markets licensed by the CVM, except for subscription, bonification, conversion of debentures into shares, securities indexes, purchase and sale of investment funds quotas and, if permitted by the CVM, going-private transactions, canceling or suspension of trading. Moreover, the offshore transfer or assignment of the securities or other financial assets held by foreign investors pursuant to Resolution No. 2,689/2000 is prohibited, except for transfers resulting from a corporate reorganization, or occurring upon the death of an investor by operation of law or will.

Resolution No. 1,927/1992 of the National Monetary Council, which is the restated and amended Annex V to Resolution No. 1,289/1997, provides for the issuance of depositary receipts in foreign markets in respect of shares of Brazilian issuers. It provides that the proceeds from the sale of ADSs by holders of ADRs outside Brazil are free of Brazilian foreign investment controls and holders of ADSs who are not resident in a tax haven jurisdiction (*i.e.*, a country or location that does not impose taxes on income or where the maximum income tax rate is lower than 20%, or where the legislation imposes restrictions on disclosure of the shareholding composition or the ownership of the investment) will be entitled to favorable tax treatment.

An electronic registration has been issued to the custodian in the name of the depositary with respect to the ADSs. Pursuant to this electronic registration, the custodian and the depositary are able to convert dividends and other distributions with respect to the underlying shares into foreign currency and to remit the proceeds outside Brazil. If a holder exchanges ADSs for preferred shares or common shares, the holder may continue to rely on the custodian s electronic registration for only five business days after the exchange. After

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that, the holder must seek to obtain its own electronic registration with the Central Bank under Law No. 4,131/1962 or Resolution No. 2,689/2000. Thereafter, unless the holder has registered its investment with the Central Bank, such holder may not convert into foreign currency and remit outside Brazil the proceeds from the disposition of, or distributions with respect to, such preferred shares or common shares.

Under Brazilian law, whenever there is a serious imbalance in Brazil s balance of payments or reasons to foresee a serious imbalance, the Brazilian government may impose temporary restrictions on the remittance to foreign investors of the proceeds of their investments in Brazil, and on the conversion of Brazilian currency into foreign currencies. Such restrictions may hinder or prevent the custodian or holders who have exchanged ADSs for underlying preferred shares or common shares from converting distributions or the proceeds from any sale of such shares, as the case may be, into U.S. dollars and remitting such U.S. dollars abroad. In the event the custodian is prevented from converting and remitting amounts owed to foreign investors, the custodian will hold the *reais* it cannot convert for the account of the holders of American Depositary Receipts who have not been paid. The depositary will not invest the *reais* and will not be liable for interest on those amounts. Furthermore, any *reais* so held will be subject to devaluation risk against the U.S. dollar.

TAXATION

The following summary contains a description of the principal Brazilian and U.S. federal income tax consequences of the ownership and disposition of preferred shares, common shares or ADSs. You should know that this summary does not purport to be a comprehensive description of all the tax considerations that may be relevant to a holder of preferred shares, common shares or ADSs.

Holders of preferred shares, common shares, or ADSs should consult their own tax advisors to discuss the tax consequences of the purchase, ownership and disposition of preferred shares, common shares or ADSs, including, in particular, the effect of any state, local or other national tax laws.

Although there is at present no treaty to avoid double taxation between Brazil and the United States, but only a common understanding between the two countries according to which income taxes paid in one may be offset against taxes to be paid in the other, both countries tax authorities have been having discussions that may result in the execution of such a treaty. In this regard, the two countries signed a Tax Information Exchange Agreement on March 20, 2007. We cannot predict whether or when such a treaty will enter into force or how, if entered into, such a treaty will affect the U.S. holders, as defined below, of preferred shares, common shares, or ADSs.

Brazilian tax considerations

The following discussion summarizes the principal Brazilian tax consequences of the acquisition, ownership and disposition of preferred shares, common shares or ADSs by a holder not deemed to be domiciled in Brazil for purposes of Brazilian taxation (Non-Brazilian Holder). It is based on the tax laws of Brazil and regulations thereunder in effect on the date hereof, which are subject to change (possibly with retroactive effect). This discussion does not specifically address all of the Brazilian tax considerations applicable to any particular Non-Brazilian Holder. Therefore, each Non-Brazilian Holder should consult his or her own tax advisor concerning the Brazilian tax consequences of an investment in preferred shares, common shares, or ADSs.

Shareholder distributions

Brazilian corporations, such as us, classify for tax purposes distributions to shareholders as either dividends or interest on shareholders equity.

Dividends. Amounts distributed as dividends, including distributions in kind, will generally not be subject to income tax withholding if the distribution is paid by us from profits of periods beginning on or after January 1, 1996 (1) to the depositary in respect of the preferred shares or common shares underlying the ADSs or (2) to a Non-Brazilian Holder in respect of preferred shares or common shares. Dividends paid from

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profits generated before January 1, 1996 may be subject to Brazilian withholding income tax at varying rates depending on the year the profits were generated.

Interest on shareholders equity. Amounts distributed as interest on shareholders equity are generally subject to income tax withholding at the rate of 15%, except if:

the beneficiary is exempt from tax in Brazil, in which case the distribution is free of Brazilian tax, or

the beneficiary is located in a Tax Haven Jurisdiction (as defined below) (a Tax Haven Holder), in which case the applicable income tax withholding rate is 25%.

Interest on shareholders equity is calculated as a percentage of shareholders equity, as stated in the statutory accounting records. The interest rate applied may not exceed the TJLP, as determined by the Central Bank of Brazil from time to time. In addition, the amount of distributions classified as interest on shareholders equity may not be more than the greater of (1) 50% of net income (after the deduction of the provision of social contribution on net profits but before taking into account such payment of interest and the provision of corporate income tax) for the period in respect of which the payment is made, or (2) 50% of the sum of retained earnings and profit reserves as of the date of the beginning of the fiscal year in respect of which the payment is made. Payments of interest on shareholders equity are deductible for corporate income tax and social contribution on net profit purposes, to the extent of the limits described above. Therefore, the benefit to us, as opposed to making a distribution classified as a dividend payment, is a reduction in our corporate taxes charge equivalent to 34% of such amount.

Taxation of capital gains. Taxation of Non-Brazilian Holders for capital gains depends on the status of the holder as either:

(1) not resident or domiciled in a Tax Haven Jurisdiction (as defined below) and registered with the Central Bank of Brazil and the CVM to invest in Brazil in accordance with Resolution No. 2,689, or a holder of ADSs; or

(2) any other Non-Brazilian Holder whose investment is not registered with the Central Bank and Non-Brazilian Holders resident in a Tax Haven Jurisdiction (*i.e.*, a jurisdiction that does not impose income tax or where the maximum income tax rate is lower than 20% or where internal legislation imposes restrictions on the disclosure of share or investment ownership).

Investors identified in item (1) are subject to favorable tax treatment, as described below.

According to Law No. 10,833, dated December 29, 2003, capital gains realized by a Non-Brazilian Holder from the disposition of assets located in Brazil are subject to taxation in Brazil.

Preferred shares and common shares qualify as assets located in Brazil, and the disposition of such assets by a Non-Brazilian Holder may be subject to income tax on the gains assessed, in accordance with the rules described below, regardless of where or with whom the transaction is carried out.

There is some uncertainty as to whether ADSs qualify as assets located in Brazil for purposes of Law No. 10,833/03. Arguably, ADSs do not constitute assets located in Brazil and therefore the gains realized by a Non-Brazilian Holder on the disposition of ADSs to another Non-Brazilian resident should not be subject to tax in Brazil. However, we cannot assure you that the Brazilian courts would uphold this interpretation of the definition of assets located in Brazil in connection with the taxation of gains realized by a Non-Brazilian Holder on the disposition of ADSs. Consequently, gains on a disposition of ADSs by a Non-Brazilian Holder (whether in a transaction carried out with another

Non-Brazilian Holder or a person domiciled in Brazil) may be subject to income tax in Brazil in accordance with the rules applicable to a disposition of shares.

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Although there are grounds to sustain otherwise, the deposit of preferred shares or common shares in exchange for ADSs may be subject to Brazilian income tax if the acquisition cost of the preferred shares or common shares is lower than the average price of such shares, which is calculated as either:

(i) the average price per preferred share or common share on the Brazilian stock exchange in which the greatest number of such shares were sold on the day of deposit; or

(ii) if no preferred shares or common shares were sold on that day, the average price on the Brazilian stock exchange in which the greatest number of preferred shares or common shares were sold in the 15 trading sessions immediately preceding such deposit.

The difference between the acquisition cost and the average price of the preferred shares or common shares calculated as described above will be considered to be a capital gain subject to taxation. There are grounds to sustain that such taxation is not applicable with respect to investors registered under the rules of Resolution No. 2,689/2000, provided these are not Tax Haven Holders.

The withdrawal of ADSs in exchange for preferred shares or common shares is not subject to Brazilian income tax, assuming compliance with applicable regulations regarding the registration of the investment with the Brazilian Central Bank.

For purposes of Brazilian taxation, the income tax rules on gains related to disposition of preferred shares or common shares vary depending on:

the domicile of the Non-Brazilian Holder;

the method by which such Non-Brazilian Holder has registered its investment with the Central Bank; and/or

how the disposition is carried out, as described below.

The gain realized as a result of a transaction on a Brazilian stock, future and commodities exchange is the difference between: (i) the amount in Brazilian currency realized on the sale or disposition and (ii) the acquisition cost, without any adjustment for inflation, of the shares sold.

Capital gains realized by a Non-Brazilian Holder on a sale or disposition of preferred shares or common shares carried out on a Brazilian stock exchange (which includes the transactions carried out on the organized over-the-counter market) are:

exempt from income tax when the Non-Brazilian Holder (i) has registered its investment in Brazil with the Central Bank in accordance with Resolution No. 2,689/2000 (a 2,689 holder) and (ii) is not a Tax Haven Holder; or

in all other cases, subject to income tax at a 15% rate. In these cases, a withholding income tax at a rate of 0.005% of the sale value is levied on the transaction and can be offset with the eventual income tax due on the capital gain.

Any other gains assessed on a sale or disposition of preferred shares or common shares that is not carried out on a Brazilian stock exchange are subject to income tax at a 15% rate except for gains realized by Tax Haven Holders, which are subject to income tax at a 25% rate.

With respect to transactions conducted on the Brazilian non-organized over-the-counter market, with brokerage, a withholding income tax at a rate of 0.005% on the sale value is also levied on the transaction and can be offset against the eventual income tax due on the capital gain. There can be no assurance that the current favorable treatment of 2,689 holders will continue in the future.

In the case of a redemption of preferred shares, common shares, or ADSs or a capital reduction by a Brazilian corporation, the positive difference between the amount received by the Non-Brazilian Holder and

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the acquisition cost of the preferred shares, common shares or ADSs redeemed is treated as capital gain derived from the sale or exchange of shares not carried out on a Brazilian stock exchange market and is therefore generally subject to income tax at the rate of 15%, while the 25% rate applies to Tax Haven Holders.

Any exercise of preemptive rights relating to the preferred shares or common shares will not be subject to Brazilian taxation. Any gains realized by a Non-Brazilian Holder on the disposition of preemptive rights relating to preferred shares or common shares in Brazil will be subject to Brazilian income taxation in accordance with the same rules applicable to the sale or disposition of preferred shares or common shares.

Tax on foreign exchange and financial transactions

Foreign exchange transactions. Brazilian law imposes a tax on foreign exchange transactions, or the IOF/Exchange Tax. The IOF/Exchange Tax applies to the conversion of *reais* into foreign currency and to the conversion of foreign currency into *reais*. Currently, for most foreign currency exchange transactions, the IOF/Exchange Tax is assessed at a rate of 0.38%, although other rates may apply to particular operations. Starting March 17, 2008, certain foreign exchange transactions are not subject to the IOF/Exchange Tax, namely those relating to share transactions carried out on a stock exchange or in a public offering registered with the CVM, or for the underwriting of shares, provided that the issuer is authorized to trade its shares at the stock exchange and, as long as supported by Decree No 6,391 of the National Monetary Council. The same applies for dividends and interest on shareholders equity. The Brazilian government may increase the rate at any time up to 25% of the foreign exchange transaction amount. However, any increase in rates cannot be applied retroactively.

Transactions involving bonds and securities. Brazilian law imposes a tax on transactions involving bonds and securities, or the IOF/Bonds Tax, including those carried out on a Brazilian stock exchange. The rate of IOF/Bonds Tax applicable to transactions involving preferred shares, common shares or ADSs is currently zero. The Brazilian government may increase such rate at any time up to 1.5% of the transaction amount per day, but the tax cannot be applied retroactively.

Temporary contribution on financial transactions. Until December 31, 2007, as a general rule, transactions carried out in Brazil that resulted in the transfer of funds from an account maintained with a Brazilian financial institution were subject to the temporary contribution on financial transactions, or the CPMF Tax, which was levied at a rate of 0.38% on any bank account withdrawals.

However, as of January 1, 2008, the CPMF Tax is no longer in force and is not applicable to any transaction carried out after that date.

Other Brazilian taxes. There are no Brazilian inheritance, gift or succession taxes applicable to the ownership, transfer or disposition of preferred shares, common shares or ADSs by a Non-Brazilian Holder, except for gift and inheritance taxes which are levied by some states of Brazil on gifts made or inheritances bestowed by a Non-Brazilian Holder to individuals or entities resident or domiciled within such states in Brazil. There are no Brazilian stamp, issue, registration, or similar taxes or duties payable by holders of preferred shares or common shares or ADSs.

U.S. federal income tax considerations

This summary does not purport to be a comprehensive description of all the U.S. federal income tax consequences of the acquisition, holding or disposition of the preferred shares, common shares or ADSs. This summary applies to U.S. holders, as defined below, who hold their preferred shares, common shares or ADSs as capital assets and does not apply to special classes of holders, such as:

certain financial institutions,

insurance companies,

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dealers in securities or foreign currencies,

tax-exempt organizations,

securities traders who elect to account for their investment in preferred shares, common shares or American Depository Shares on a mark-to-market basis,

persons holding preferred shares, common shares or ADSs as part of hedge, straddle, conversion or other integrated financial transaction for tax purposes,

holders whose functional currency for U.S. federal income tax purposes is not the U.S. dollar,

partnerships or other holders treated as pass-through entities for U.S. federal income tax purposes,

persons subject to the alternative minimum tax, or

persons owning, actually or constructively, 10% or more of our voting shares.

This discussion is based on the Internal Revenue Code of 1986, as amended to the date hereof, administrative pronouncements, judicial decisions and final, temporary and proposed Treasury Regulations, all as in effect on the date hereof. These authorities are subject to differing interpretations and may be changed, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those discussed below. There can be no assurance that the U.S. Internal Revenue Service (the IRS) will not challenge one or more of the tax consequences discussed herein or that a court will not sustain such a challenge in the event of litigation. This summary does not address any aspect of state, local or non-U.S. tax law.

HOLDERS SHOULD CONSULT THEIR TAX ADVISORS WITH REGARD TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION.

This discussion is also based, in part, on representations of the depositary and the assumption that each obligation in the deposit agreement and any related agreement will be performed in accordance with its terms.

As used herein, the term U.S. holder means a beneficial owner of preferred shares, common shares, or ADSs that is, for U.S. federal income tax purposes:

a citizen or resident alien individual of the United States,

a corporation created or organized in or under the laws of the United States or of any political subdivision thereof, or

otherwise subject to U.S. federal income taxation on a net income basis with respect to the preferred shares, common shares, or ADSs.

The term U.S. holder also includes certain former citizens of the United States.

The U.S. federal income tax treatment of a partner in a partnership (or any other entity classified as a pass through entity for U.S. federal income tax purposes) that holds preferred shares, common shares or ADSs generally will depend on such partner s particular circumstances and on the activities of the partnership. Partners in such partnerships (or other pass-through entities) should consult their own tax advisors.

In general, for U.S. federal income tax purposes, holders of American depositary receipts evidencing ADSs will be treated as the beneficial owners of the preferred shares or common shares represented by those ADSs. Deposits and withdrawals of preferred shares or common shares by holders in exchange for ADSs will not result in the realization of gain or loss for U.S. federal income tax purposes.

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Taxation of dividends

The gross amount of a distribution paid on ADSs, preferred shares or common shares, including distributions paid in the form of payments of interest on capital for Brazilian tax purposes, out of our current or accumulated earnings and profits (as determined for U.S. federal income tax purposes) will be taxable to you as foreign source dividend income and will not be eligible for the dividends-received deduction allowed to corporate shareholders under U.S. federal income tax law. The amount of any such distribution will include the amount of Brazilian withholding taxes, if any, withheld on the amount distributed. To the extent that a distribution exceeds our current and accumulated earnings and profits, such distribution will be treated as a nontaxable return of capital to the extent of your basis in the ADSs, preferred shares or common shares, as the case may be, with respect to which such distribution is made, and thereafter as a capital gain.

You will be required to include dividends paid in *reais* in income in an amount equal to their U.S. dollar value calculated by reference to an exchange rate in effect on the date such distribution is received by the depositary, in the case of ADSs, or by you, in the case of common shares or preferred shares. If the depositary or you do not convert such *reais* into U.S. dollars on the date they are received, it is possible that you will recognize foreign currency loss or gain, which would be ordinary loss or gain, when the *reais* are converted into U.S. dollars. If you hold ADSs, you will be considered to receive a dividend when the dividend is received by the depositary.

Subject to certain exceptions for short-term and hedged positions, the U.S. dollar amount of dividends received by certain noncorporate taxpayers, including individuals, prior to January 1, 2011 with respect to the ADSs will be subject to taxation at a maximum rate of 15% if the dividends are qualified dividends. Dividends paid on the ADSs will be treated as qualified dividends if (i) the ADSs are readily tradable on an established securities market in the United States and (ii) the company was not, in the year prior to the year in which the dividend was paid, and is not, in the year in which the dividend is paid, a passive foreign investment company (PFIC). The ADSs are listed on the New York Stock Exchange and will qualify as readily tradable on an established securities market in the United States so long as they are so listed. Based on Vale s audited financial statements and relevant market and shareholder data, Vale believes that it was not treated as a PFIC for U.S. federal income tax purposes with respect to its 2007 or 2008 taxable year. In addition, based on Vale s audited financial statements and its current expectations regarding the value and nature of its assets, the sources and nature of its income, and relevant market and shareholder data, Vale does not anticipate becoming a PFIC for its 2009 taxable year.

Based on existing guidance, it is not entirely clear whether dividends received with respect to the preferred shares and common shares will be treated as qualified dividends (and therefore whether such dividends will qualify for the maximum rate of taxation of 15%), because the preferred shares and common shares are not themselves listed on a U.S. exchange. In addition, the U.S. Treasury has announced its intention to promulgate rules pursuant to which holders of ADSs, preferred shares or common stock and intermediaries through whom such securities are held will be permitted to rely on certifications from issuers to establish that dividends are treated as qualified dividends. Because such procedures have not yet been issued, it is unclear whether we will be able to comply with them. Holders of ADSs, preferred shares and common shares should consult their own tax advisors regarding the availability of the reduced dividend tax rate in the light of their own particular circumstances.

Subject to generally applicable limitations and restrictions, you will be entitled to a credit against your United States federal income tax liability, or a deduction in computing your U.S. federal taxable income, for Brazilian income taxes withheld by us. You must satisfy minimum holding period requirements to be eligible to claim a foreign tax credit for Brazilian taxes withheld on dividends. The limitation on foreign taxes eligible for credit is calculated separately for specific classes of income. For this purpose dividends paid by us on our shares will generally constitute passive income . Foreign tax credits may not be allowed for withholding taxes imposed in respect of certain short-term or hedged positions in securities or in respect of arrangements in which a U.S. holder s expected economic profit is

insubstantial. U.S. holders should consult their own tax advisors concerning the implications of these rules in light of their particular circumstances.

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Taxation of capital gains

Upon a sale or exchange of preferred shares, common shares or ADSs, you will recognize a capital gain or loss for U.S. federal income tax purposes equal to the difference, if any, between the amount realized on the sale or exchange and your adjusted tax basis in the preferred shares, common shares or ADSs. This gain or loss will be long-term capital gain or loss if your holding period in the preferred shares, common shares or ADSs exceeds one year. The net amount of long-term capital gain recognized by individual U.S. holders prior to January 1, 2011 generally is subject to taxation at a maximum rate of 15%. Your ability to use capital losses to offset income is subject to limitations.

Any gain or loss will be U.S. source gain or loss for U.S. foreign tax credit purposes. Consequently, if a Brazilian withholding tax is imposed on the sale or disposition of ADSs, preferred shares or common shares, and you do not receive significant foreign source income from other sources you may not be able to derive effective U.S. foreign tax credit benefits in respect of such Brazilian withholding tax. You should consult your own tax advisor regarding the application of the foreign tax credit rules to your investment in, and disposition of, ADSs, preferred shares or common shares.

If a Brazilian tax is withheld on the sale or disposition of shares, the amount realized by a U.S. holder will include the gross amount of the proceeds of such sale or disposition before deduction of the Brazilian tax. See *Item 10. Additional information Taxation Brazilian tax considerations*.

Information reporting and backup withholding

Information returns may be filed with the Internal Revenue Service in connection with distributions on the preferred shares, common shares or ADSs and the proceeds from their sale or other disposition. You may be subject to United States backup withholding tax on these payments if you fail to provide your taxpayer identification number or comply with certain certification procedures or otherwise establish an exemption from backup withholding. If you are required to make such a certification or to establish such an exemption, you generally must do so on IRS Form W-9.

The amount of any backup withholding from a payment to you will be allowed as a credit against your U.S. federal income tax liability and may entitle you to a refund, provided that the required information is timely furnished to the Internal Revenue Service.

DOCUMENTS ON DISPLAY

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, and accordingly file reports and other information with the SEC. Reports and other information filed by us with the SEC may be inspected and copied at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You can obtain further information about the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. You may also inspect Vale s reports and other information at the offices of the New York Stock Exchange, 11 Wall Street, New York, New York 10005, on which Vale s ADSs are listed. Our SEC filings are also available to the public from the SEC s website at http://www.sec.gov. For further information on obtaining copies of Vale s public filings at the New York Stock Exchange, you should call (212) 656-5060. We also file financial statements and other periodic reports with the CVM.

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Item 11. ***Quantitative and qualitative disclosures about market risk***

RISK MANAGEMENT

The aim of our risk management strategy is to promote enterprise-wide risk management, through an integrated framework that considers the impact on our business of not only market risks but also of credit and operational risks. The benefit of this integrated framework, which accounts for all kinds of corporate risks as well as the correlations among different market risk factors, is to enable us to accurately evaluate risk after accounting for all of the natural hedges in Vale s portfolio. Using this framework highlights the diversification of our mix of products and currencies, which tends to reduce our overall risk.

We consider the effective management of risk a key objective to support our growth strategy and financial flexibility. Mitigating future cash flow risk enhances our credit quality, improves our ability to access different credit markets and reduces our cost of capital. In furtherance of this objective, our Board of Directors has established an enterprise-wide risk management policy and a risk management committee. Our risk management strategy is designed to address market risk as well as credit and operational risks to our business. Our strategy is intended to promote the following principles: (1) enhance the capital structure, (2) support the long-term corporate strategy, (3) maintain financial flexibility, and (4) implement best practices in corporate governance.

Our risk management policy requires that we regularly evaluate cash flow risk and, when necessary, analyze and propose risk mitigation strategies to reduce cash flow volatility. It explicitly prohibits speculative transactions with derivatives and requires diversification of transactions types and of counterparties.

The risk management committee is responsible for assisting our executive officers in overseeing and reviewing information regarding our enterprise risk management activities, including principles, significant policies, risk management processes and procedures, and risk management instruments. The risk management committee reports periodically to the Executive Board, and the Executive Board is responsible for the evaluation and approval of long-term risk mitigation strategies recommended by the risk management committee. As of April 2009, the members of the risk management committee were: Fabio de Oliveira Barbosa, Chief Financial Officer, Tito Martins, Executive Officer (Non-ferrous Minerals), Guilherme Cavalcanti, Corporate Finance Director, and Jennifer Maki, Vale Inco Chief Financial Officer.

In addition to our risk management governance model, we also rely on a well-defined corporate structure. Different and independent departments recommend and implement derivative transactions. The risk management department is responsible for defining and proposing to the risk management committee market risk mitigation strategies consistent with our corporate strategy. The corporate finance department is responsible for the execution of risk mitigation strategies through the use of derivatives. The independence of these departments provides effective control over these operations.

The consolidated market risk exposure and portfolio of derivatives are measured monthly and monitored in order to evaluate the financial results and the possible risk impacts on our cash flows, monitoring achievement of the initial goals. The mark-to-market on the derivatives portfolio is reported weekly to management. We also periodically review the credit limits and creditworthiness of our hedging counterparties.

Considering the nature of our business and operations, the principal market risks we face are:

- interest rate risk,
- exchange rate risk,

product price risk, and

input price risk.

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We mitigate operational risk by establishing new controls, improving existing ones, obtaining insurance and establishing financial provisions. As a result, we have a clear view of our major operational risks, the best mitigation plans on a cost-benefit basis, and the controls to monitor them.

We recognize all derivatives on our balance sheet at fair value, and the gain or loss in fair value is accrued in our current earnings, in accordance with SFAS 133, Accounting for Derivative Financial Instruments and Hedging Activities, as amended by SFAS 137 and SFAS 138. Fair value accounting and the mark-to-market of derivatives may introduce unintended volatility in our quarterly earnings. However, it does not generate volatility in our cash flows, given the nature of our derivatives transactions.

The asset (liability) balances at December 31, 2008 and 2007 and the movement in fair value of derivative financial instruments are shown in the following table.

	Interest rates (LIBOR)/ currencies	Aluminum products	Copper	Nickel	Platinum	Gold	Total
Fair value at January 1, 2007	US$ (10)	US$ (318)	US$ (298)	US$ 16	US$ (20)	US$ (53)	US$ (683)
Financial settlement	(290)	112	240	(38)	13	33	70
Unrealized gains (losses) in the year	854	153	(129)	63	(17)	(7)	917
Effect of exchange rate changes	72	(45)	(1)	1		(9)	18
Unrealized gain (loss) at December 31, 2007	US$ 626	US$ (98)	US$ (188)	US$ 42	US$ (24)	US$ (36)	US$ 322
Fair value at January 1, 2008	US$ 626	US$ (98)	US$ (188)	US$ 42	US$ (24)	US$ (36)	US$ 322
Financial settlement	(394)	120	173	38	27	41	5
Unrealized gains (losses) in the year	(682)	(18)	(29)	(46)	(6)	(30)	(811)
Effect of exchange rate changes	(123)	(4)	44	(2)	3	25	(57)
Unrealized gain (loss) December 31, 2008	US$ (573)	US$ 0	US$ 0	US$ 32	US$ 0	US$ 0	US$ (541)

Interest rate and exchange rate risks

Our cash flows are exposed to the volatility of several different currencies. While most of our product prices, representing around 91% of total revenue, are denominated or indexed to the U.S. dollar, most our costs,

disbursements and investments are denominated or indexed to other currencies, mainly *reais* and Canadian dollars.

Derivative instruments may be used in order to reduce potential cash flow volatility arising from the currency mismatch between our debt service and our revenues. Our currency and interest rate derivative portfolio consists basically of swaps to convert floating cash flows in *reais* to fixed or floating U.S. dollar cash flows, without any leverage.

We are also exposed to interest rate risk on loans and financings. Our U.S. dollar-denominated floating rate debt consists mainly of loans, including export pre-payments, commercial bank loans and multilateral organization loans. In general, interest on our U.S. dollar floating rate debt is based on LIBOR (London Interbank Offer Rate in U.S. dollars). To mitigate the impact of interest rate volatility on our cash flows, we take advantage of natural hedges resulting from the positive correlation of metal prices and U.S. dollar floating rates. Where natural hedges are not present, we may opt to realize the same effect using financial instruments.

Our floating rate debt denominated in *reais* includes debentures, loans obtained from BNDES and property and service acquisition financing in the Brazilian market. Interest on these obligations is mainly

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based on the CDI (Interbank Deposit Certificate), the benchmark interest rate in the Brazilian interbank market, and the TJLP, the benchmark Brazilian long-term interest rate.

The following table sets forth our floating and fixed rate long-term debt, categorized by Brazilian local and foreign currency, and as a percentage of our total long-term debt portfolio at the dates indicated, including loans from unrelated parties, except for accrued charges and translation adjustments, as reflected in our consolidated financial statements.

	At December 31,			
	2007		2008	
	(US$ million, except percentages)			
Floating rate debt:				
Real-denominated	5,071	27.4%	4,374	24.5%
Denominated in other currencies	6,272	33.8%	6,612	37.0%
Subtotal	11,343		10,987	
Fixed rate debt:				
Real-denominated	1	0%	1	0%
Denominated in other currencies	7,180	38.8%	6,868	38.5%
Subtotal	18,525	100%	17,857	100%
Accrued charges	331		311	
Total	18,856		18,168	

The following table provides information about our debt obligations as of December 31, 2008. It presents the principal cash flows and related weighted average interest rates of these obligations by expected maturity date. Weighted average variable interest rates are based on the applicable reference rate at December 31, 2008. Actual cash flows of these debt obligations are denominated mainly in U.S. dollars or *reais,* as indicated.

	Weighted average interest rate(1)(2)	2009	2010	2011	2012	2013	To 2036	Total	Fair value cash flow at 12/31/08(3)
					(US$ million)				
US$-denominated									
Fixed rate:									
Bonds	6.83%		5.7	5.7	407.5	123.4	5,965.7	6,508.0	5,752.7
Loans	2.74%	12.4	4.8	1.6	1.5		30.3	50.6	50.6
Securitization notes	5.58%	55.2	57.5	30.0	32.5	30.0		205.2	210.4
Floating rate:									
Loans	2.74%	199.4	290.4	505.3	262.8	245.7	683.8	2,187.4	1,996.5
Trade finance	2.40%		1,250.0	2,025.0	375.0	400.0		4,050.0	3,698.7

Subtotal		267.0	1,608.4	2,567.6	1,079.3	799.1	6,679.8	13,001.2	11,708.8
***Real*-denominated**									
Fixed rate loans	12.90%	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
Floating rate loans	12.90%	32.5	674.3	34.3	45.4	1,744.9	1,842.8	4,374.3	4,400.5
Subtotal		32.5	674.3	34.3	45.4	1,744.9	1,843.9	4,375.4	4,401.6
Denominated in other currencies									
Fixed rate loans	9.33%	6.24	10.84	5.45	5.60	5.30	71.5	104.5	105.0
Floating rate loans	3.88%	16.3	10.0	10.2	7.4	7.5	32.1	83.6	128.6
Subtotal		23	21	16	13	13	104	189	234
No maturity							291.4	291.4	291.4
Total		322.0	2,303.6	2,617.6	1,137.7	2,556.8	8,918.7	17,857	16,635

(1) Weighted average interest rates do not take into account the effect of the derivatives.

(2) Weighted average variable interest rates are based on the applicable reference rate at December 31, 2008.

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(3) Includes only long-term debt obligations.

We have entered into swaps to convert *real*-denominated debt instruments linked to CDI or TJLP to U.S. dollar fixed or floating rates. In fixed rate swaps, we pay fixed rates in U.S. dollars and receive payments in *reais* linked to the CDI or to the TJLP. In floating rate swaps, we pay a floating rate in U.S. dollars linked to LIBOR and receive payments in *reais* linked either to the CDI or the TJLP.

As of December 31, 2008, the value of our debt denominated in *reais* swapped to U.S. dollars was US$4.2 billion, with an average cost of 4.9% per year after the currency swap. Our *real*-denominated debt matures from November 2010 to December 2027, and interest payments are mainly due on a semi-annual basis.

These swap transactions have settlement dates similar to the interest and principal payment dates, taking into account the liquidity restrictions of the market. At each settlement date the results of the settlement of the swap transaction offset part of the impact of the *real*/U.S. dollar exchange rate in our obligations, contributing to a stable flow of cash disbursements in U.S. dollars for the interest and/or principal payment of our *real*-denominated debt.

In the event of appreciation (depreciation) of the *real* against the U.S. dollar, the negative (positive) impact on our *real*-denominated debt obligations (interest and/or principal payment) measured in U.S. dollars will be largely offset by a positive (negative) effect from any existing swap transaction, regardless of the *real*/U.S. dollar exchange rate on the payment date.

In the event of a sharp depreciation of the *real* against the U.S. dollar, there would be the following effects:

Quarterly earnings: In the short term, the variation of mark-to-market of the currency swaps would produce a negative impact on our quarterly accounting earnings without any cash effect.

Cash disbursement: Starting November 2010, at the settlement date of the currency swap involving debt principal, we would have a lower equivalent in U.S. dollar disbursement, with the payment of debt principal offset by a disbursement with the liquidation of the currency swap.

We have also entered into swaps to convert euro-denominated debt with interest based on EURIBOR to U.S. dollar debt with interest based on to LIBOR, and to convert U.S. dollar floating rate debt with interest based on LIBOR into U.S. dollar fixed rate debt.

We used to convert our Brazilian payroll denominated in *reais* to U.S. dollars, employing currency swaps with monthly settlement, hedging our cash flow. We decided on an early settlement of our outstanding payroll hedging since part of the cash obtained from our 2008 global equity offering was invested in *reais*. The cash invested in *real* hedges our cash flow to protect us against *real* volatility mostly affecting our costs and investments.

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The following table sets forth certain information about our cross-currency swap transactions.

	At December 31, 2007				At December 31, 2008			
	Notional value	Rate range (payable)	Rate range (receivable)	Unrealized gain (loss)	Notional value	Rate range (payable)	Rate range (receivable)	Unrealize gain (loss
	(US$ million, except interest rate ranges)							
ated debt:								
loating	180	Libor+ 0.676%	CDI+0.40%	30.7	430.0	Libor + (0.676-0.99)%	CDI + 0.40%/ 103.5% CDI	(95)
ixed rate	3,248	US$+(5.25 -5.98)%	(100-101.75%) CDI	502.2	3,672	US$+ (0.90-5.98)%	(100-103.5%) CDI	(375)
floating	56.3	Libor+ -(0.86-1)%	TJLP+1.80%	(1.4)	378	Libor + -(1.89-0.86)%	TJLP + (0.8-1.8)%	(29)
fixed rate	85.2	US$+(3.57 -4.05)%	TJLP+1.8%	(4.3)	304	US$+ (2.83-4.30)%	TJLP +(0.8-1.8)%	(61)
ated ebt	10.8	Euribor+ 0.875%	Libor+ 1.0425%	3.3	8	Euribor + 0.875%	Libor + 1.0425%	2
ate debt	200	US$+ 4.795%	Libor 3M	(4.9)	200	US$+4.76%	Libor 3M	(14)
ging	814	R$+(-0.02 -17.4)%	100% CDI	105.8				
	US$ 4,594			US$ 631.4	US$ 4,992			US$ (572)

Product price risk

We are exposed to various market risks relating to the volatility of world market prices for the following products:

- iron ore and iron ore pellets, which represented 57.4% of our 2008 gross consolidated revenues;
- nickel, which represented 15.5% of our 2008 gross consolidated revenues;
- copper products, which represented 5.3% of our 2008 gross consolidated revenues;
- aluminum products, which represented 7.9% of our 2008 gross consolidated revenues;
- PGMs and other precious metals, which represented 1.3% of our 2008 gross consolidated revenues; and
- other products.

Nickel

In order to maintain our exposure to nickel price fluctuations, despite having fixed-price contracts to sell nickel, we entered into derivative transactions converting our fixed-price contracts to floating-price contracts. These transactions aim to guarantee that when we deliver the product to the client, it has the same average prices negotiated in the LME.

This process normally involves buying nickel forwards (over-the-counter) or futures (exchange traded). These operations are usually settled before maturity in order to match the settlement dates of the fixed-price commercial contracts.

The following table sets forth certain information with respect to our nickel derivatives related to our sales at December 31, 2007 and 2008.

	At December 31, 2007			At December 31, 2008			
	Quantity (metric tons)	Average price (US$ per metric ton)	Unrealized gain (loss) (US$ million)	Quantity (metric tons)	Price range (US$ per metric ton)	Unrealized gain (loss) (US$ million)	Final maturity
Nickel fixed-price program	8.229	19,950-46,300	(37.4)	10.140	9,355-37,480	(50)	Mar. 2011

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Aluminum

We entered into hedging transactions aiming to reduce cash flow volatility due to changes in LME aluminum prices. Usually these transactions are implemented by the sale of forward over-the-counter or future contracts, at the LME or by using zero-cost collar contracts (purchase of put options associated with the sale of call options). These transactions matured in December 2008. The following table sets forth certain information with respect to our aluminum derivatives portfolio at December 31, 2007 and 2008.

	At December 31, 2007			At December 31, 2008			
	Notional value (metric tons)	Price range (US$ per metric ton)	Unrealized gain (loss) (US$ million)	Notional value (metric tons)	Price range (US$ per metric ton)	Unrealized gain (loss) (US$ million)	Final maturity
Puts purchased	354,000	2,000-2,550	8.1				
Forwards sold	48,000	2,200-2,750	(5.2)				
Calls sold	354,000	2,300-3,150	(28.9)				
Other instruments	69,000	1,400-1,700	(54.7)				
Total			(80.7)				

Copper

We entered into hedging transactions to reduce cash flow volatility due to changes in LME copper prices. These transactions are usually implemented by the sale of forward over-the-counter or future contracts, at the LME or the COMEX, or by using zero-cost collar contracts. These transactions were settled in December 2008. The following table sets forth certain information with respect to our copper derivatives portfolio.

	At December 31, 2007			At December 31, 2008			
	Quantity (metric ton)	Price range (US$ per metric ton)	Unrealized gain (loss) (US$ million)	Quantity (metric tons)	Price range (US$ per metric ton)	Unrealized gain (loss) (US$ million)	Final maturity
Puts purchased	78,000	5,800-6,000	17.3				
Calls sold	78,000	7,650-8,500	(18.1)				
Total			(0.8)				
Puts purchased	9,996	2,485-2,500					

Range forward options	48,384	2,205-2,855	(186.8)

Gold

We entered into hedging transactions to reduce cash flow volatility due to changes in gold prices, as gold is a by-product of our copper production. These transactions are usually implemented by the sale of forward contracts or zero-cost collar contracts. These transactions matured in December 2008. The following table sets forth certain information with respect to our gold derivatives portfolio at December 31, 2007 and 2008.

	At December 31, 2007			At December 31, 2008			
	Quantity (oz.)	Price range (US$ per oz.)	Unrealized gain (loss) (US$ million)	Quantity (oz.)	Price range (US$ per oz.)	Unrealized gain (loss) (US$ million)	Final maturity
Puts purchased	77,700	305-345					
Calls sold	82,740	353-426	(36.5)				

Platinum

We entered into hedging transactions to reduce cash flow volatility due to changes in platinum prices. These transactions are usually implemented by the sale of forward contracts over-the-counter or at the LME and the COMEX or by using zero-cost collar contracts. These transactions matured in December 2008. The

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following table sets forth certain information with respect to our platinum derivatives portfolio at December 31, 2007 and 2008.

	At December 31, 2007			At December 31, 2008			
	Quantity (oz.)	Price range (US$ per oz.)	Unrealized gain (loss) (US$ million)	Quantity (oz.)	Price range (US$ per oz.)	Unrealized gain (loss) (US$ million)	Final maturity
Range forward options	34,644	675-830	(24.1)				

Input price risk

We are exposed to various market risks relating to the volatility of world market prices for the following inputs, among others:

- outsourced services, which represented 16.3% of our 2008 cost of goods sold;
- material, which represented 16.4% of our 2008 cost of goods sold;
- energy, which represented 16.6% of our 2008 cost of goods sold;
- acquisition of products, which represented 12.6% of our 2008 cost of goods sold; and
- personnel, which represented 12.1% of our 2008 cost of goods sold.

We may hedge certain input price risk with swap contracts, long-term contracts, embedded derivatives or backward integration.

Energy

As a large consumer of electricity, we are investing in power generation projects and gas exploration to protect us against volatility in the price of energy, regulatory uncertainties and the risk of energy shortages. We own hydroelectricity power generation plants in Brazil, Canada and Indonesia, and we currently generate 34% of our worldwide electricity needs from our own hydroelectric power plants.

We are developing hydroelectric and thermal power plants and engaging in natural gas exploration programs in order to increase our energy production and reduce our future exposure to energy price and supply volatility.

Our subsidiary Albras has an embedded energy derivative, with its electricity price linked to the price of aluminum. Albras has a 20-year contract, expiring in 2024, with Eletronorte, which provides for a basic purchase price, in *reais* per MWh. In addition to the basic price, there is a clause in the contract that requires us to pay a premium if the price of primary aluminum trades in the US$1,450 per metric ton to the US$2,773 per metric ton range in the LME. This clause is an embedded derivative. It had an unrealized loss of US$48 million as of December 31, 2008 and US$191 million as of December 31, 2007.

We have entered into derivatives in order to minimize the impact of natural gas price volatility on the costs of our Canadian nickel operations. These transactions are usually implemented using swaps or by the purchase of forward contracts.

Under these contracts, we pay fixed prices for natural gas and receive amounts based on monthly average spot prices. The following table sets forth certain information about our natural gas derivatives portfolio at December 31, 2007 and 2008.

	At December 31, 2007			At December 31, 2008			
	Quantity (gigajoule)	Price range (CAD per gigajoule)	Unrealized gain (loss) (US$ million)	Quantity (gigajoule)	Price range (CAD per gigajoule)	Unrealized gain (loss) (US$ million)	Final maturity
Swaps	5,476,500	7.34-8.48	(6.1)	1,773,000	7.34-7.97	(2)	Oct. 2009

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Acquisition of products

Nickel

The purchases of concentrate, cathode or other nickel metal for use as feed in our processing facilities create price risk since the feed price is generally fixed before the refined nickel is available for sale. We have entered into hedging transactions that aim to reduce cash flow volatility due to the price mismatch. We enter into LME sell contracts to match the pricing on the sale to the pricing of the purchase, or we sell nickel forward or future contracts over-the-counter.

The following table sets forth certain information with respect to our nickel purchase protection program at December 31, 2007 and 2008.

	At December 31, 2007			**At December 31, 2008**			
	Quantity (metric ton)	**Price range (US$ per metric ton)**	**Unrealized gain (loss) (US$ million)**	**Quantity (metric ton)**	**Price range (US$ per metric ton)**	**Unrealized gain (loss) (US$ million)**	**Final maturity**
Nickel purchase protection program	3,072	25,565-32,890	15.9	4,944	9,117-16,900	(7)	Sep. 2009

Copper

We enter into hedging transactions to reduce cash flow volatility due to the quotational period mismatch between the pricing period of copper scrap purchases and the pricing period of final product sales to the clients, as we buy copper scrap to combine with other raw materials or inputs to produce copper. This program is usually implemented by the sale of forwards over-the-counter or futures at the LME.

The following table sets forth certain information with respect to our copper scrap purchase protection program.

	At December 31, 2007			**At December 31, 2008**			
	Quantity (metric ton)	**Price range (US$ per metric ton)**	**Unrealized gain (loss) (US$ million)**	**Quantity (metric ton)**	**Price range (US$ per metric ton)**	**Unrealized gain (loss) (US$ million)**	**Final maturity**
Futures sold	159	6,622-8,080	0.09	136	3,743-6,895	0.4	March 2009

As of December 31, 2008, we had outstanding contracts to purchase intermediate nickel and copper at provisional prices based on commodity indices. For accounting purposes, we treated the provisional pricing aspect of the contracts as an embedded derivative. The unrealized gain on such embedded derivatives was US$22 million at December 31, 2008 and US$23 million at December 31, 2007.

Credit risk

We are exposed to credit risk arising from trade receivables, derivative transactions, payment guarantees and cash investments. The credit risk process was implemented through a set of credit risk governance documents that establish the guidelines for granting counterparty limits and for measuring and controlling credit exposure. The credit risk policy provides a framework for assessing and managing counterparties credit risk and for maintaining our risk at an acceptable level. The policy also defines the role of the risk management committee and the Executive Board. The risk management committee analyzes and recommends to the Executive Board the maximum credit risk exposure to trade receivables and the maximum credit risk exposure to financial institutions that are acceptable at both the counterparty and at the portfolio level.

We analyze and propose to the risk management committee credit risk mitigation strategies to hedge our portfolio to avoid concentration issues and, when necessary, to comply with the acceptable risk levels established by the Executive Board. The credit risk transactions implemented are strictly focused on risk mitigation; speculative credit derivative transactions are not permitted.

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Customer credit quality is evaluated considering default probability, measured by financial statements, company size, past performance, country risk, credit rating, and equity and credit market performance. A credit limit is established for each customer in each business unit according to the guidelines defined in our credit risk policy. Customers credit limits are monitored according to their credit exposure and their creditworthiness. Customer credit limits are updated annually. If there are significant changes in the marketplace, we may reevaluate the credit limits.

We are also exposed to financial institution credit risk arising from our derivative transactions and our cash investments. Financial institution credit quality is evaluated considering default probability, evaluated by financial statements, foreign and local currency credit ratings, and equity and credit market performance. Financial institution credit quality is evaluated at least annually according to our internal policy. Credit exposure limits are submitted to the risk management committee and to the Executive Board for approval. Our strategy may not be effective in managing risks due to market fluctuations, particularly those related to commodity prices, exchange rate fluctuations, and changes in the composition of our sales.

Item 12. ***Description of securities other than equity securities***

None.

PART II

Item 13. ***Defaults, dividend arrearages and delinquencies***

None.

Item 14. ***Material modifications to the rights of security holders and use of proceeds***

None.

Item 15. ***Controls and procedures***

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

Our management, with the participation of our chief executive officer and chief financial officer, has evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2008. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. Our chief executive officer and chief financial officer have concluded that our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

MANAGEMENT S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and

procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide

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reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of the effectiveness to future periods are subject to the risk that controls may become inadequate and that the degree of compliance with the policies or procedures may deteriorate.

Our management has assessed the effectiveness of Vale s internal control over financial reporting as of December 31, 2008 based on the criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on such assessment and criteria, Our management has concluded that our internal control over financial reporting was effective as of December 31, 2008. The effectiveness of our internal control over financial reporting as of December 31, 2008 has been audited by PricewaterhouseCoopers Auditores Independentes, an independent registered public accounting firm, as stated in their report which appears herein.

CHANGES IN INTERNAL CONTROLS

Our management identified no change in our internal control over financial reporting during our fiscal year ended December 31, 2008 that has materially affected or is reasonably likely to materially affect our internal control over financial reporting.

Item 16A. ***Audit committee financial expert***

As described in Item 16D of this Form 20-F, in lieu of establishing an independent audit committee, we have given our Fiscal Council the necessary powers to qualify for the exemption from the audit committee requirements set forth in Exchange Act Rule 10A-3(c)(3). Our Board of Directors has determined that one of the members of our Fiscal Council, Mr. Aníbal Moreira dos Santos, is an audit committee financial expert. Mr. Moreira dos Santos meets the applicable independence requirements for Fiscal Council membership under Brazilian law. He also meets the NYSE independence requirements that would apply to audit committee members in the absence of our reliance on the exemption set forth in Exchange Act Rule 10A-3(c)(3).

Item 16B. ***Code of ethics***

Vale has adopted a code of ethical conduct that applies to all board members, executive officers and employees, including the chief executive officer, the chief financial officer and the principal accounting officer. We have posted this code of ethical conduct on our website at: http://www.vale.com (under English Version/Investors/Corporate Governance/Code of Ethics). Copies of our code of ethical conduct may be obtained without charge by writing to us at the address set forth on the front cover of this Form 20-F. We have not granted any implicit or explicit waivers from any provision of our code of ethical conduct since its adoption.

Item 16C. ***Principal accountant fees and services***

PRINCIPAL ACCOUNTANT FEES

PricewaterhouseCoopers Auditores Independentes billed the following fees to us for professional services in 2007 and 2008.

Year Ended December 31,

	2007	2008
	(US$ thousand)	
Audit fees	7,385	8,327
Audit-related fees	614	777
Tax fees	327	512
All other fees	386	246
Total fees	8,712	9,862

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Audit fees are the aggregate fees billed by PricewaterhouseCoopers for the audit of our annual financial statements and reviews of interim financial statements and attestation services that are provided in connection with statutory and regulatory filings or engagements. Audit-related fees are fees charged by PricewaterhouseCoopers for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements and are not reported under Audit fees. In 2007 and 2008, Audit-related fees consisted primarily of fees for services related to due diligence and special reviews. Tax fees relate primarily to the review of the annual federal tax return and review of accuracy of the tax computation procedures with respect to income tax and sales taxes.

AUDIT COMMITTEE PRE-APPROVAL POLICIES AND PROCEDURES

Our Fiscal Council currently serves as our audit committee for purposes of the Sarbanes-Oxley Act of 2002. Pursuant to a written policy, our Fiscal Council requires management to obtain the Fiscal Council s approval before engaging any external auditor to provide any audit or permitted non-audit services to us or our consolidated subsidiaries.

Under the policy, the Fiscal Council has pre-approved a detailed list of services based on detailed proposals from our auditors up to specified monetary limits set forth in the policy. Services that are not listed or that exceed the specified limits must be separately pre-approved by the Fiscal Council. The Fiscal Council is provided with reports on the services provided under the policy on a periodic basis, and the list of pre-approved services is updated periodically. The policy also sets forth a list of prohibited services. Internal control related services must be specifically pre-approved by the Fiscal Council.

Item 16D. ***Exemptions from the listing standards for audit committees***

We have designated and empowered our Fiscal Council to perform the role of an audit committee pursuant to Exchange Act Rule 10A-3. We are required by both the SEC and the NYSE listed company audit committee rules to comply with Exchange Act Rule 10A-3, which requires that we either establish an audit committee composed of members of the Board of Directors that meets specified requirements or designate and empower our Fiscal Council to perform the role of the audit committee in reliance on the exemption set forth in Exchange Act Rule 10A-3(c)(3). We believe our Fiscal Council satisfies the independence and other requirements of Exchange Act Rule 10A-3 that would apply in the absence of our reliance on the exemption.

Item 16E. ***Purchases of equity securities by the issuer and affiliated purchasers***

On October 16, 2008, our Board of Directors approved a share buy-back program for the acquisition of up to 69,944,380 common shares and up to 169,210,249 preferred shares, to be executed during 360 days. As of December 31, 2008, we had acquired 18,355,859 common shares and 46,513,400 preferred shares held in treasury for subsequent disposal or cancellation at an average weighted unit cost of US$11.59.

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	Total number of shares (or units) purchased as part of publicly	Maximum number (or approximate US$ value) of shares (or units) that	&nb