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

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.

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

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.

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 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.

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

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.

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 166. Corporate governance.