



## Vale S.A.

(Incorporated in Brazil as a Sociedade por Ações)

# LISTING OF DEPOSITARY RECEIPTS ON THE STOCK EXCHANGE OF HONG KONG LIMITED BY WAY OF INTRODUCTION

Stock code: 6210 for Common Depositary Receipts

Stock code: 6230 for Class A Preferred Depositary Receipts

Sponsor

J.P.Morgan

#### **IMPORTANT**

If you are in any doubt about any of the contents of this Listing Document, you should consult your stockbroker, bank manager, solicitor, professional accountant or other independent professional adviser.



## Vale S.A.

(incorporated in Brazil as a Sociedade por Ações) (Stock code: 6210 for Common Depositary Receipts) (Stock code: 6230 for Class A Preferred Depositary Receipts)

## SECONDARY LISTING OF DEPOSITARY RECEIPTS ON THE MAIN BOARD OF THE STOCK EXCHANGE OF HONG KONG LIMITED BY WAY OF INTRODUCTION

#### **Sponsor**

### J.P.Morgan

#### J.P. Morgan Securities (Asia Pacific) Limited

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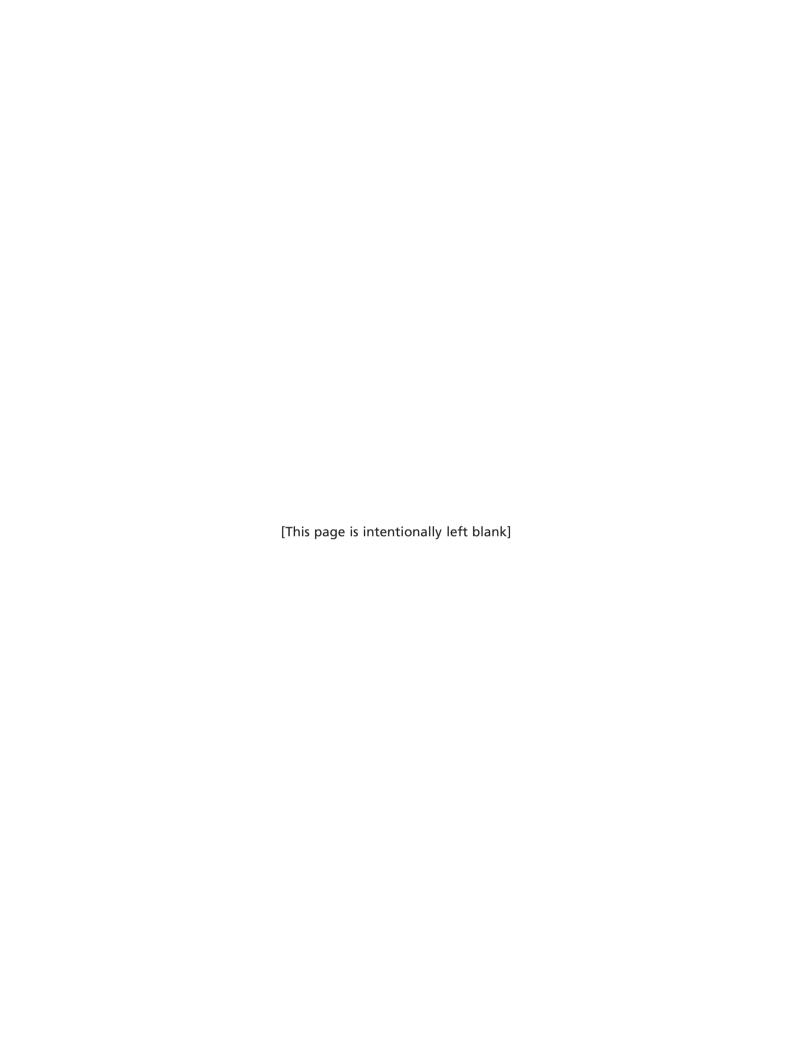
This Listing Document is published in connection with the admission to secondary listing of the Depositary Receipts representing the Common Shares and the Class A Preferred Shares of Vale S.A., respectively on the Main Board of the Stock Exchange by way of introduction. The Common Shares and Class A Preferred Shares are presently listed on BM&FBOVESPA in São Paulo, Brazil and traded on LATIBEX of the Madrid Stock Exchange. The Common Shares and Class A Preferred Shares in the form of American Depositary Receipts evidencing American Depositary Shares are also presently listed on the New York Stock Exchange, United States and traded on NYSE Euronext Paris.

This Listing Document contains particulars which are given in compliance with the Securities and Futures (Stock Market Listing) Rules (Chapter 571V of the Laws of Hong Kong) and the Listing Rules and are solely for the purpose of providing information with regard to our Company and its subsidiaries.

This Listing Document does not constitute an offer of, nor is it calculated to invite offers for, shares or other securities of our Company, nor have any such shares or other securities been allotted with a view to any of them being offered for sale to or subscription by the public. No new shares in the capital of our Company will be allotted and issued in connection with, or pursuant to, this Listing Document.

Prior to making an investment decision, prospective investors should consider carefully all of the information set out in this Listing Document, including the risk factors set out in the section in this Listing Document headed "Risk factors".

Information regarding the proposed arrangements for the secondary listing and registration of, and for dealings and settlement of dealings in, the Depositary Receipts on the Stock Exchange following the Introduction is set out in the section in this Listing Document headed "Listings, terms of Depositary Receipts and Depositary Agreements, registration, dealings and settlement".



#### **EXPECTED TIMETABLE**

Announcement released on the Stock Exchange disclosing designated broker identity number	Friday, 3 December 2010
Announcements released on the Stock Exchange disclosing the previous day closing price of the Common Shares and the Class A Preferred Shares on BM&FBOVESPA and of the ADRs on	
NYSE and any recent developments and updates with regard to the liquidity arrangements	Monday, 6 December 2010 to Wednesday, 8 December 2010
Dealings in the Depositary Receipts on the Stock Exchange are expected to commence at	9.30 a.m. on Wednesday, 8 December 2010 <sup>(1),(2)</sup>

- **Note:** (1) All times refer to Hong Kong local time.
- (2) We will make a separate announcement if there is any revision to the above timetable.

#### CONTENTS

#### **IMPORTANT NOTICE TO INVESTORS**

Our Company has not authorised anyone to provide you with information or representation that is different from what is contained in this Listing Document in respect of the Introduction.

Any such information or representation must not be relied on by you as having been authorised by our Company, any other member of the Group, the Sponsor, any of their respective directors, officers, employees, agents or advisers or any other person or party involved in the Introduction.

			Page
EXPECTED TIM	ETAE	BLE	i
CONTENTS			ii
SUMMARY			1
DEFINITIONS .			16
GLOSSARY OF	TECH	INICAL TERMS	24
FORWARD-LOC	OKIN	G STATEMENTS	31
			33
		FINANCIAL INFORMATION	48
INFORMATION	ABC	OUT THIS LISTING DOCUMENT AND THE INTRODUCTION	49
DIRECTORS, EX	ECU	TIVE OFFICERS AND PARTIES INVOLVED IN THE INTRODUCTION	52
CORPORATE IN	FOR	MATION	55
			58
LISTINGS, TERM	1S O	F DEPOSITARY RECEIPTS AND DEPOSITARY AGREEMENTS,	
		EALINGS AND SETTLEMENT	91
		:W	115
		ELOPMENT	134
		RUCTURE	136
			138
		H VALEPAR	211
		TIVE OFFICERS, COMMITTEES AND STAFF	215
			230
		REHOLDERS	236
		IATION	237
		PROSPECTS AND REASONS FOR THE INTRODUCTION	291
APPENDIX I		AUDITED FINANCIAL STATEMENTS	I-1
APPENDIX II		UNAUDITED INTERIM FINANCIAL INFORMATION	II-1
APPENDIX III	_		III-1
APPENDIX IV	_		IV-1
APPENDIX V	_	SUMMARY OF THE BY-LAWS, CERTAIN PROVISIONS OF BRAZILIAN	
		CORPORATE LAW AND CERTAIN BRAZILIAN, US AND OTHER	
		SECURITIES AND TAX REGULATIONS	V-1
APPENDIX VI		SHAREHOLDER PROTECTION MATTERS	VI-1
APPENDIX VII	_	Solving are of the france of the solving are solving a	
ABBRIDA		TO THE GROUP'S BUSINESS OPERATIONS	
APPENDIX VIII		STATUTORY AND GENERAL INFORMATION	
APPENDIX IX	_	DOCUMENTS AVAILABLE FOR INSPECTION	IX-1

This summary aims to give you an overview of the information contained in this Listing Document. As this is a summary, it does not contain all the information that might be important to you. You should read this Listing Document in its entirety, including the Appendices hereto which constitute an integral part of this Listing Document, before coming to any decision in respect of the Depositary Receipts.

There are risks associated with any investment. Some of the particular risks relevant to the Depositary Receipts are summarised in the section in this Listing Document headed "Risk factors". You should read that section carefully before you come to any decision in respect of the Depositary Receipts.

#### **OVERVIEW**

We are the second largest metals and mining company in the world and the largest in the Americas, based on market capitalisation as at 29 November 2010. We are the world's largest producer by volume of iron ore and iron ore pellets. We are a leading producer of nickel. We are also among the leading producers of manganese ore and ferroalloys. We also produce copper, coal, fertilizer nutrients, cobalt, platinum group metals and other products.

Iron ore represents the largest contributor to our earnings, amounting to 53.6% of revenues in 2009. Nickel, copper and coal contributed to 13.6%, 4.7% and 2.1% of our revenues in 2009, respectively. In terms of geographical breakdown, China is our single largest market, contributing to 37.6% of sales in 2009. Sales to other Asian countries, including Japan and South Korea, contributed to 19.3% of sales in 2009. Outside of Asia, Europe and South America also remain important regions, contributing to 16.9% and 16.7% of our revenues in 2009, respectively.

Headquartered in Brazil and operating across five continents, we employ over 115,000 people including direct employees and contractors. To sustain our growth strategy, we are actively engaged in mineral exploration in twenty-three countries around the world. As at 30 June 2010, the Group owned and operated more than 60 mining sites and projects in different locations worldwide, of which approximately 44% were iron ore mines.

We operate large logistics systems in Brazil integrated with our mining operations, including railroads, maritime terminals and a port. In addition, we are building a portfolio of maritime freight to transport iron ore to Asia. We also have investments in the energy and steel sectors directly or through subsidiaries and companies under joint control.

#### SECONDARY LISTING OF DEPOSITARY RECEIPTS BY WAY OF INTRODUCTION

The Common Shares and Class A Preferred Shares are presently listed on BM&FBOVESPA in São Paulo, Brazil and traded on LATIBEX of the Madrid Stock Exchange. The Common Shares and Class A Preferred Shares in the form of ADRs are also presently listed on NYSE and traded on NYSE Euronext Paris.

We are seeking the admission of the Common Depositary Receipts and Class A Preferred Depositary Receipts to secondary listing on the Main Board of the Stock Exchange by way of introduction. For further details, see the section in this Listing Document headed "Listings, terms of Depositary Receipts and Depositary Agreements, registration, dealings and settlement."

The grant of the admission of the Common Depositary Receipts and Class A Preferred Depositary Receipts to secondary listing on the Main Board of the Stock Exchange will be conditional on us maintaining the primary listing of our Shares on BM&FBOVESPA and the listing of our ADRs on NYSE.

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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg

The Depositary Receipts are divided into the Common Depositary Receipts and the Class A Preferred Depositary Receipts, representing the Common Shares and the Class A Preferred Shares, respectively, in the ratio of one Common Depositary Receipt to one Common Share and one Class A Preferred Depositary Receipt to one Class A Preferred Share. For the differences between the Common Shares and the Class A Preferred Shares, please see the section in this Listing Document headed "Share capital".

In recent years, we have significantly increased our business activities in Asia, China in particular, and we expect this trend to continue in the near term. We are a major supplier of minerals and metals to China and our sales to China reached US\$9.0 billion, representing 37.6% of our total revenue, in 2009. We are also a major buyer of machinery, mining and power generation equipment and ships from China. We have made substantial investments in China, having set up several joint venture companies with Chinese partners which engage in the coal, iron ore and nickel businesses.

The further expansion of our business presence in China (as well as in other parts of Asia) forms a key part of our development strategies. We have planned to invest approximately US\$12.9 billion this year with respect to the maintenance of existing assets, research and development and project execution. A major part of the planned capacity expansion for our various business lines has been and will continue to be dedicated to meeting growth in demand for minerals and metals in Asia, particularly in China. Hence, we believe a secondary listing in Hong Kong is a significant step in raising our profile in, and demonstrating our commitment to, Asia.

We are primarily governed by Brazilian laws and are principally subject to the Corporations Act and CVM Rules. Brazilian laws and regulations differ in a number of respects from comparable laws and regulations of Hong Kong. Please see further details in the section in this Listing Document headed "Waivers". There are residual differences between the shareholder protection regimes in Brazil and Hong Kong. For further details, please see Appendix V to this Listing Document.

We have obtained a ruling from the SFC that we will not be treated as a public company in Hong Kong for the purposes of the Takeovers Code and the Share Repurchases Code and hence, those codes will not apply to our Company. We have also obtained a partial exemption from the SFC in respect of the disclosure of interest provisions set out in the SFO. In addition, we have applied for, and been granted, waivers or exemptions by the Stock Exchange from certain requirements under the Listing Rules. Neither our Shareholders nor the HDR Holders will have the benefit of those Hong Kong laws, regulations and Listing Rules for which we have applied, and been granted, waivers or exemptions by the Stock Exchange and the SFC.

Additionally, if any of those waivers were to be revoked in circumstances including our non-compliance with applicable undertakings for any reason, additional legal and compliance obligations might be costly and time consuming, and might result in issues of inter-jurisdictional compliance, which could adversely affect us and HDR Holders.

As the SFC does not have extra-territorial jurisdiction on any of its powers of investigation and enforcement, it will also have to rely on the regulatory regimes of CVM and SEC to enforce any corporate governance breaches committed by us in Brazil or the United States. Investors should be aware that it could be difficult to enforce any judgment obtained outside Brazil against us or any of our associates.

#### SUMMARY OF HISTORICAL FINANCIAL AND OPERATING INFORMATION

#### **Selected Audited Financial Data**

You should read the summary financial and operating information set forth below in conjunction with the financial statements set forth in Appendix I to this Listing Document and the section in this Listing Document headed "Financial information".

#### Statement of income data

	For the ve	ar ended 31	December	For the six months ended 30 June
	2007	2008	2009	2010
			million)	
Net operating revenues	32,242	37,426	23,311	16,262
Cost of products and services	(16,463)	(17,641)	(13,621)	(7,661)
Selling, general and administrative expenses	(1,245)	(1,748)	(1,130)	(636)
Research and development	(733)	(1,085)	(981)	(361)
Impairment of goodwill	_	(950)	` _	· —
Other expenses	(607)	(1,254)	(1,522)	(912)
Operating income	13,194	14,748	6,057	6,692
Non-operating (expenses) income:				
Financial (expenses) income	(1,291)	(1,975)	351	(1,204)
Exchange and monetary gains, net <sup>(1)</sup>	2,553	364	675	36
Gain on sale of investments <sup>(2)</sup>	777	80	40	
Subtotal	2,039	(1,531)	1,066	(1,168)
Income before discontinued operations, income taxes				
and equity results	15,233	13,217	7,123	5,524
Income taxes charge	(3,201)	(535)	(2,100)	(422)
Equity in results of affiliates and joint ventures and change in provision for gains on equity				
investments	595	794	433	379
Net income from continuing operations	12,627	13,476	5,456	5,481
Discontinued operations, net of tax				(151)
Net income	12,627	13,476	5,456	5,330
Net income attributable to non-controlling interests	802	258	107	21
Net income attributable to Company's stockholders	11,825	13,218	5,349	5,309
Total cash paid to shareholders (3)	1,875	2,850	2,724	1,250

<sup>(1)</sup> The aggregate foreign currency transaction gain or loss (both realised and unrealised) included in determining net income for the reporting period.

<sup>(2)</sup> The net realised gain or loss on investments sold during the period, which, for cash flow reporting, is a component of proceeds from investing activities.

<sup>(3)</sup> Consists of total cash paid to Shareholders during the period, whether classified as dividends or interest on shareholders' equity (dividends attributed to stockholders).

#### Basic and diluted earnings per share

	For the	year ended 31 D	ecember	For the six months ended 30 June
	2007	2008 <sup>(4)</sup>	2009	2010
			S\$)	
Earnings per share <sup>(1)</sup> :				
Basic				
Per common share	2.41	2.58	0.97	0.99
Per preferred share	2.41	2.58	0.97	0.99
Diluted	2.71	2.50	0.57	0.55
Per common share	2.42	2.61	1.00	1.00
Per preferred share	2.42	2.61	1.00	1.01
Weighted average number of shares	2.42	2.01	1.00	1.01
outstanding (in thousands) <sup>(2)</sup> :				
	2 0 42 246	2 020 047	2 404 706	2 406 040
Common shares	2,943,216	3,028,817		3,186,018
Preferred shares	1,889,171	1,946,454	2,030,700	2,033,272
Treasury common shares underlying				
convertible notes	34,510	56,582	74,998	18,416
Treasury preferred shares underlying				
convertible notes	18,478	30,295	77,580	47,285
Total			5,364,984	5,284,991
10tal	4,885,375	5,062,148	5,304,904	5,264,991
Distributions to shareholders per share (3):				
In US\$	0.39	0.56	0.53	
In R\$	0.74	1.09	1.01	

<sup>(1)</sup> Diluted earnings per share for 2007, 2008 and 2009 include Class A Preferred Shares and Common Shares underlying the mandatorily convertible notes issued in June 2007. Diluted earnings per share for 2009 also include Class A Preferred Shares and Common Shares underlying the mandatorily convertible notes issued in July 2009.

<sup>(2)</sup> Each common ADS represents one Common Share and each preferred ADS represents one Class A Preferred Share.

<sup>(3)</sup> Our distributions to Shareholders may be classified as either dividends or interest on shareholders' equity. Since 2005, part of each distribution has been classified as interest on shareholders' equity and part as dividends.

<sup>(4)</sup> In July 2008, we issued 80,079,223 common ADSs, 176,847,543 Common Shares, 63,506,751 preferred ADSs and 100,896,048 Class A Preferred Shares in a global equity offering. In August 2008, we issued an additional 24,660,419 Class A Preferred Shares. In October 2008, the Board of Directors approved a share buy-back programme, which was terminated on May 27, 2009. While the programme was in effect, our Company acquired 18,415,859 Common Shares and 47,284,800 Class A Preferred Shares, corresponding respectively to 1.5% and 2.4% of the outstanding Shares of each class on the date the programme was launched.

#### **Balance sheet data**

	At 31 December			At 30 June
	2007	2008	2009	2010
		(US\$	million)	
Current assets	11,380	23,238	21,294	25,039
Property, plant and equipment, net	54,625	49,329	68,810	73,749
Investments in affiliated companies and joint ventures				
and other investments	2,922	2,408	4,585	4,444
Other assets	7,790	5,017	7,590	7,571
Total assets	76,717	79,992	102,279	110,803
Current liabilities	10,083	7,237	9,181	12,213
Long-term liabilities <sup>(1)</sup>	13,195	10,173	12,703	15,045
Long-term debt <sup>(2)</sup>	17,608	17,535	19,898	19,125
Total liabilities	40,886	34,945	41,782	46,383
Redeemable non-controlling interests <sup>(3)</sup>	375	599	731	724
Stockholders' equity:				
Capital stock	12,306	23,848	23,839	25,726
Additional paid-in capital	498	393	411	1,790
Mandatorily convertible notes	4 200	4 200	4 570	200
— common ADSs	1,288	1,288	1,578	290
Mandatorily convertible notes	581	581	1 225	644
— preferred ADSs	18,603	16,446	1,225 29,882	31,761
Total Company shareholders' equity	33,276	42,556	56,935	60,211
Non-controlling interests	2,180	1,892	2,831	3,485
Total shareholders' equity	35,456	44,448	59,766	63,696
Total liabilities and shareholders' equity	76,717	79,992	102,279	110,803

<sup>(1)</sup> Excludes long-term debt.(2) Excludes current portion of long-term debt.(3) The aggregate amount to be paid by the entity upon redemption of the security that is classified as temporary equity.

The following table presents the breakdown of our total operating revenues attributable to each of our main lines of business:

	Year ended 31 December							onths O June
	200	)7	200	)8	200	)9	201	0
	(US\$ million)	(% of total)	(US\$ million)	(% of total)	(US\$ million)	(% of total)	(US\$ million)	(% of total)
Bulk materials:								
Ferrous minerals:								
Iron ore	11,908	36.0	17,775	46.2	12,831	53.6	9,182	54.7
Iron ore pellets	2,738	8.3	4,301	11.2	1,352	5.6	2,393	14.3
Manganese ore	69	0.2	266	0.7	145	0.6	147	0.9
Ferroalloys	719	2.2	1,211	3.1	372	1.6	312	1.9
Pig iron	81	0.2	146	0.4	45	0.2	9	0
Total for ferrous minerals	15,515	46.9	23,699	61.6	14,745	61.6	12,043	71.8
Coal	178	0.5	577	1.5	505	2.1	312	1.9
Base metals:								
Nickel	10,043	30.3	5,970	15.5	3,260	13.6	1,621 <sup>(3</sup>	<sup>3)</sup> 9.7
Copper	1,985	6.0	2,029	5.3	1,130	4.7	387	2.3
PGMs	314	1.0	401	1.0	132	0.6	0	0
Precious metals	113	0.3	111	0.3	65	0.3	0	0
Other non-ferrous minerals <sup>(1)</sup>	374	1.1	420	1.1	215	0.9	0	0
Aluminium <sup>(2)</sup>	2,722	8.2	3,042	7.9	2,050	8.6	1,254	7.5
Total for Base metals	15,551	47.0	11,973	31.1	6,852	28.6	3,262	19.5
Fertilizer nutrients	178	0.5	295	0.8	413	1.7	275	1.6
Logistics services	1,525	4.6	1,607	4.2	1,104	4.6	723	4.3
Other investments	168	0.5	358	0.8	320	1.3	163	1.0
Total operating revenues	33,115	100.0	38,509	100.0	23,939	100.0	16,778	100.0

#### Notes:

- (1) Includes kaolin and cobalt. We propose to transfer all of our interests in the kaolin business. Hence, we entered into an agreement with Imerys S.A. in July 2010 for the transfer of our interest in Pará Pigmentos S.A. (PPSA) and propose to transfer our other kaolin mineral rights located in Northern Brazil.
- (2) We have entered into the following agreements to transfer our interests in the aluminium business:
  - (a) an agreement with Norsk Hydro ASA in May 2010 for the transfer of our stakes in three aluminium companies, together with certain contractual rights; and
  - (b) an agreement with Alumínio Nordeste S.A., a company of the Metalis group, in January 2010 for the transfer of the aluminium assets of Valesul Aluminio S.A.
- (3) For the purposes of this figure only, nickel revenues were aggregated with those for its co-products and by-products, including cobalt and precious metals.

The following table presents the breakdown of our total operating revenues attributable to the destination from which they originated:

		ended 30 June							
	2007		2008		2009		2010		
	(US\$ million)	(%)	(US\$ million)	(%)	(US\$ million)	(%)	(US\$ million)	(%)	
North America	4,922	14.9	4,236	11	1,742	7.3	706	4.2	
USA	2,966	9.0	2,466	6.4	832	3.5	298	1.8	
Canada	1,761	5.3	1,517	3.9	886	3.7	390	2.3	
Others	195	0.6	253	0.7	24	0.1	18	0.1	
South America	6,181	18.7	7,725	20.1	3,997	16.7	3,328	19.8	
Brazil	5,288	16.0	6,675	17.3	3,655	15.3	3,014	18.0	
Others	893	2.7	1,050	2.7	342	1.4	314	1.9	

		Six months ended 30 June						
	2007		2008		2009		2010	
	(US\$ million)	(%)	(US\$ million)	(%)	(US\$ million)	(%)	(US\$ million)	(%)
Asia	13,346	40.3	15,761	40.9	13,633	56.9	8,319	49.6
China	5,865	17.7	6,706	17.4	9,003	37.6	4,955	29.5
Japan	3,827	11.6	4,737	12.3	2,412	10.1	1,904	11.3
South Korea	1,473	4.4	1,474	3.8	883	3.7	548	3.3
Taiwan	1,665	5.0	954	2.5	681	2.8	447	2.7
Others	516	1.6	1,890	4.9	654	2.7	464	2.8
Europe	7,325	22.1	9,450	24.5	4,036	16.9	3,738	22.3
Germany	1,856	5.6	2,511	6.5	1,085	4.5	1,169	7.0
Belgium	683	2.1	910	2.4	336	1.4	100	0.6
France	722	2.2	815	2.1	336	1.4	174	1.0
UK	1,066	3.2	1,261	3.3	492	2.1	498	3.0
Italy	632	1.9	821	2.1	335	1.4	436	2.6
Others	2,366	7.1	3,132	8.1	1,452	6.1	1,362	8.1
Rest of the World	1,340	4.0	1,337	3.5	<u>531</u>	2.2	687	4.1
Total	33,115	100.0	38,509	100	23,939	100	16,778	100.0

#### **SUMMARY OF MATERIAL RESERVES AS AT 30 JUNE 2010**

The following tables constitute a summary of the Material Reserves (for further details, see Appendix III to this Listing Document):

	Iron ore reserves per mine in the Southeastern System as at 30 June 2010 <sup>(1)</sup>						Projected
	Prov	en	Probable		Total		exhaustion
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date
Itabira complex							
Conceição	267.3	51.4	26.4	58.8	293.7	52.1	2023
Minas do Meio	301.6	53.8	172.0	56.1	473.6	54.7	2023
Minas Centrais complex							
Água Limpa/Cururu <sup>(2)</sup>	37.0	41.4	5.5	42.0	42.5	41.5	2019
Gongo Soco	43.3	65.9	11.9	64.6	55.2	65.6	2019
Brucutu	410.0	50.2	250.3	47.2	660.4	49.1	2023
Apolo	292.4	57.4	339.7	55.1	632.1	56.2	2029
Mariana complex							
Alegria	150.7	49.7	27.1	46.8	177.8	49.2	2024
Fábrica Nova	480.1	46.0	349.6	44.1	829.6	45.2	2033
Fazendão	233.4	49.6	92.6	50.0	326.0	49.7	2040
Corumbá complex							
Urucum	7.4	62.6	25.4	62.1	32.8	62.2	2023
Total Southeastern System	2,223.2	51.0	1,300.6	50.5	3,523.8	50.8	

Iron ore reserves per mine in the Southern System as at 30 June 2010<sup>(1)</sup>

	30 June 2010 <sup>11</sup>					Projected	
	Prov	en	Proba	ble	Tota	al	exhaustion
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date
Minas Itabiritos complex							
Segredo	172.1	52.0	168.7	48.5	340.8	50.2	2034
João Pereira	202.3	42.2	287.7	41.7	490.0	41.9	2034
Sapecado	90.2	52.7	120.3	53.2	210.5	53.0	2030
Galinheiro	114.1	54.7	180.7	54.0	294.8	54.3	2030
Vargem Grande complex							
Tamanduá	280.3	56.1	203.8	51.3	484.0	54.1	2039
Capitão do Mato	200.2	55.6	558.3	50.6	758.5	51.9	2040
Abóboras	227.4	45.3	217.1	43.3	444.5	44.3	2029
Paraopeba complex							
Jangada	39.1	66.7	14.6	66.3	53.8	66.6	2018
Córrego do Feijão	27.5	67.0	3.3	63.7	30.8	66.7	2014
Capão Xavier	79.8	65.1	8.1	64.3	87.9	65.0	2021
Mar Azul	17.0	58.2	1.5	58.6	18.5	58.2	2016
Total Southern System	1,450.0	52.6	1,764.0	48.9	3,214.0	50.6	

<sup>(1)</sup> Tonnage is stated in millions of metric tons of run-of-mine. Grade is % of Fe.

Iron ore reserves per mine in the Northern System as at

	30 June 2010 <sup>(3)</sup>						Projected	
	Proven		Probable		Total		exhaustion	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date	
Serra Norte complex								
N4W	1,212.3	66.5	286.9	66.1	1,499.2	66.4	2028	
N4E	285.4	66.5	86.3	66.0	371.7	66.4	2024	
N5	381.0	66.8	724.7	67.2	1,105.7	67.1	2028	
Serra Sul								
S11	3,045.8	66.8	1,193.7	66.7	4,239.6	66.8	2059	
Serra Leste								
SL1	55.7	66.2	5.2	66.4	60.9	66.2	2039	
Total Northern System	4,980.3	66.7	2,296.8	66.7	7,277.2	66.7		

## Iron ore reserves per mine in Samarco as at 30 June 2010<sup>(3)</sup>

	50 Julie 2010						Drainstad	
	Proven		Probable		Total		Projected exhaustion	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date	
Samarco Norte Centro	706.0	44.2	554.7	40.7	1,260.7	42.7	2052	
Samarco Sul	440.0	39.7	382.0	38.5	822.0	39.2	2052	
Total Samarco <sup>(4)</sup>	<u>1,146.0</u>	42.5	936.7	<u>39.8</u>	2,082.7	41.3		

<sup>(3)</sup> Tonnage is stated in millions of metric tons of run-of-mine. Grade is % of Fe.

<sup>(2)</sup> Our Company has a 50% equity interest in the Água Limpa/Cururu mine.

<sup>(4)</sup> Our Company has a 50% equity interest in the Samarco mines.

	Nickel ore reserves as at 30 June 2010 <sup>(5)</sup>						Dun's stool	
	Proven		Probable		Tota	al	Projected exhaustion	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date	
Canada								
Sudbury	69.5	1.22	47.0	1.15	116.5	1.19	2025	
Thompson	8.0	1.93	17.0	1.63	24.9	1.72	2010 - 47	
Voisey's Bay	21.4	3.00	3.2	0.66	24.6	2.70	2022	
New Caledonia								
Vale New Caledonia								
(Goro)	100.8	1.35	23.5	1.91	124.3	1.46	2041	
Brazil								
Onça Puma	<u>55.1</u>	<u>1.79</u>	27.6	1.62	82.7	1.73	2040	
Total	254.8	1.57	118.3	1.47	373.0	1.53		
	Indo	Indonesia nickel ore reserves as at 30 June 2010 <sup>(5)</sup>						
		Projected exhaustion						
	Tonnage			Grade			date	
Indonesia <sup>(6)</sup>								
Sorowako, Sulawesi		119.0			1.79		2035 <sup>(7)</sup>	
Total		119.0			1.79			

<sup>(5)</sup> Tonnage is stated in millions of dry metric tons. Grade is % of nickel.

<sup>(7)</sup> Subject to duration of Contract of Work (as to which see the section of this Listing Document headed "Business-Mining concessions and other related rights").

	Copper ore reserves as at 30 June 2010 <sup>(8)</sup>						Projected
	Proven		Probable		Total		exhaustion
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date
Brazil							
Sossego	100.8	0.97	39.8	0.88	140.6	0.95	2021
Salobo	569.2	0.75	<u>554.1</u>	0.64	1,123.3	0.70	2040
Total	<u>670.0</u>	0.78	<u>593.9</u>	0.66	<u>1,263.9</u>	0.73	

<sup>(8)</sup> Tonnage is stated in millions of metric tons of run-of-mine. Grade is % of copper.

	Coal ore reserves as at 30 June 2010 <sup>(9)</sup>					
	Coal type	Proven	Probable		exhaustion date	
		(tonnage)		(tonnage)	(calorific value)	
Moatize	Metallurgical & thermal	422	532	954	27.2 (thermal)	2046

<sup>(9)</sup> Tonnage is stated in millions of metric tons. Reserves are based on in-situ moisture. Calorific value of product coal derived from beneficiation of ROM coal is typically stated in megajoule per kilogramme. Calorific value is used in marketing thermal coal.

#### **STRENGTHS**

We believe our success and potential for future growth can be attributed to a combination of the following competitive strengths:

- we have world-class iron ore operations;
- we have integrated logistics systems to strengthen our competitiveness;

<sup>(6)</sup> Disclosure is made separately from other nickel reserves to reflect the particular aggregation of proven and probable reserves for Indonesia.

- we have a solution-oriented marketing policy with a strong focus on customer service;
- we have a diversified and high-quality portfolio of assets;
- we have a long and successful track record of project operation and development with an experienced management team;
- we have a well-planned long-term growth strategy with a strong project pipeline;
- we have superior financial strength with disciplined capital allocation; and
- we have fully leveraged the strong long-term fundamentals of minerals and metals.

#### **STRATEGIES**

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 established standards of excellence in research, development, project implementation and business operations. We plan to accomplish our vision through the following strategies:

- maintaining our leadership position in the global iron ore market;
- achieving leadership in the nickel business;
- investing in fertilizer nutrients;
- developing our copper resources;
- investing in coal;
- diversifying and expanding our resource base;
- enhancing our logistics capacity to support our iron ore business; and
- developing energy projects.

#### **FUTURE PLANS AND PROSPECTS**

On 28 October 2010, we announced that the Board of Directors had approved the investment budget for 2011, including capital expenditures of US\$24,000 million dedicated to sustaining existing operations, research and development and project execution. (1)

The capital expenditure budget for 2011 represents an increase of 125.1% over the US\$10,662 million invested in the last twelve-month period ended on 30 September 2010. Our investment plan reinforces the focus on organic growth as a priority: 81.3% of the budget is allocated to finance research and development and greenfield and brownfield projects against an average of 74.4% over the last five years.

During 2011 we will invest in the development of a large number of major projects, fifteen of which have already been approved by the Board of Directors. The approved projects include Carajás Additional 30 Mtpy, Conceição Itabiritos, Vargem Grande Itabiritos, Oman, Tubarão VIII, CLN 150, Salobo, Salobo II, Konkola North, Long Harbour, Totten, Moatize, Biofuels, Estreito and Karebbe. We will continue to make sizeable investments in our railroads, maritime terminals, shipping fleet and power generation facilities.

18 large projects are coming on stream between 2010 and 2012, generating cash flow from the US\$26,000 million of capital invested over time in their development. The completion of these projects will enhance our capacity to finance our plans for future growth and provide the

<sup>(1)</sup> The total capital expenditures announced in the investment budget for 2011 cannot be broken down in their entirety by project in this Listing Document on the basis it also includes expenditure dedicated to sustaining existing operations and research and development.

foundation for building new business platforms through the development of low capital expenditure brownfield projects.

#### Investment budget data

Investment budget (US\$ million)						
By category	2011	<u>%</u>				
Organic growth	19,521	81.3				
Projects	17,535	73.0				
Research and development	1,986	8.3				
Support of existing operations	4,479	18.7				
Total	24,000	100.0				
Investment budget (US\$ million)						
By business area	2011	<u>%</u>				
Bulk materials	10,110	42.1				
Ferrous minerals	8,522	35.5				
Coal	1,588	6.6				
Base metals	4,310	18.0				
Fertilizers	2,505	10.4				
Logistics	5,014	20.9				
Power generation	794	3.3				
Steel	677	2.8				
Others	590	2.5				
Total	24,000	100.0				

#### **DIVIDENDS AND DIVIDEND POLICY**

Under our dividend policy, the Board of Executive Officers shall announce, no later than 31 January in each year, a proposal to be submitted to the Board of Directors regarding the minimum dividend, expressed in U.S. Dollars, that will be declared according to our Company's expected performance in the year of distribution. The proposal will comprise payment in two semi-annual instalments, in the form of dividends and/or interest on shareholders' equity, to be paid in April and October, respectively in the year of distribution. If approved by the Board of Directors, dividends are converted from U.S. Dollars into and paid in Reais at the Real/U.S. Dollar exchange rate (Ptax – option 5) announced by the Central Bank of Brazil on the last business day in Brazil before the Board meeting that will decide upon the declaration and payment of dividends. The Board of Executive Officers can also propose to the Board of Directors, depending on our cash flow performance, an additional payment to Shareholders of an amount over and above the minimum dividend initially declared. If approved by the Board of Directors, this extra instalment will be paid together with either of the other two instalments previously declared.

Under Brazilian law and the By-laws, we are required to distribute to Shareholders an annual amount equal to not less than 25% of the distributable amount, which is referred to as the minimum dividend, unless the Board of Directors advises Shareholders at our Shareholders' meeting that payment of that amount is inadvisable in light of our financial condition. Under Brazilian law, we are required to hold an annual Shareholders' meeting by April 30 of each year at which an annual dividend can be declared. Additionally, the Board of Directors may declare interim dividends.

HDR Holders should note that cash distributions in respect of Shares underlying the Depositary Receipts might be subject to adjustments for taxes and deductions for certain of the HDR Depositary's expenses. In addition, HDR Holders will also incur charges on any cash distribution made pursuant to the Depositary Agreements. For further details, see the sections in this Listing

Document headed "Listings, terms of Depositary Receipts and Depositary Agreements, registration, dealings and settlement — Share Dividends and Other Distributions and Fees and Expenses."

#### **EXCHANGE RATE FLUCTUATIONS**

In the financial years ended 31 December 2007 and 31 December 2009 and the six-month period ended 30 June 2010, we had currency gains of US\$1,639 million, US\$665 million and US\$3 million, respectively; in the financial year ended 31 December 2008, we had currency losses of US\$1,011 million. We expect currency fluctuations to continue to affect our financial income, expense and cash flow generation. For details of historic fluctuations in exchange rates, please see the section in this Listing Document headed "Industry overview — Exchange rate fluctuations."

#### **RISK FACTORS**

We believe that there are certain risks involved in our operations, some of which are beyond our control. These risks can be broadly categorised into:

- (I) risks relating to our business and the industry we operate in;
- (II) risks relating to the Introduction;
- (III) risks relating to our secondary listing;
- (IV) risks relating to our Company; and
- (V) risks relating to the Depositary Receipts.

Set out below is a summary of the risks set out above. For further details, please see the section in this Listing Document headed "Risk factors".

#### Risks relating to our business and the industry we operate in

We believe risks relating to our business and the industry we operate in can be broadly categorised into:

- (a) economic risks;
- (b) project risks; and
- (c) legal, regulatory and political risks.

#### **Economic risks**

- The mining industry is highly exposed to the cyclicality of global economic activity and requires significant investments of capital.
- A decline in the demand for steel would adversely affect our business.
- We might not be able to adjust production volume in a timely or cost-efficient manner in response to changes in demand.
- The shift to quarterly pricing based on short-term market references and consequent price volatility for iron ore could adversely affect our iron ore business.
- The prices of nickel and copper, which are actively traded on world commodity exchanges, are subject to significant volatility.
- Increased availability of alternative nickel sources or substitution of nickel from end use applications could adversely affect our nickel business.

- Adverse economic developments in China could have a negative impact on our revenues, cash flow and profitability. Our results of operations are subject, to a significant extent, to political and social developments in China.
- Higher energy costs or energy shortages would adversely affect our business.
- Price volatility, relative to the U.S. Dollar, of the currencies in which we conduct operations could adversely affect our financial condition and results of operations.
- Information in this Listing Document regarding future plans reflects current intentions and is subject to change.

#### Project risks

- Concessions, authorisations, licences and permits are subject to renewal and various uncertainties and we might only renew some of our mining concessions a limited number of times and for limited periods of time.
- Our reserve estimates might materially differ from mineral quantities that we might actually be able to recover; our estimates of mine life might prove inaccurate; and market price fluctuations and changes in operating and capital costs might render certain reserves uneconomical to mine.
- We report our iron ore reserves in this Listing Document and will report our iron ore and other mineral reserves on a continuing basis after completion of the Introduction under reporting standards which are not one of the prescribed standards under the Listing Rules.
- Drilling and production risks could adversely affect the mining process.
- We face rising extraction costs over time as reserves deplete.
- We might face shortages of equipment, services and skilled personnel.
- Labour disputes might disrupt our operations from time to time.
- Ineffective project management, operational problems or prolonged periods of severe weather conditions could materially and adversely affect our business and results of operations.
- We may not have adequate insurance coverage for some business risks.
- We might not be able to replenish our reserves, which could adversely affect our mining prospects.
- Some of our operations depend on joint ventures or consortia and our business could be adversely affected if our partners fail to observe their commitments.

#### Legal, regulatory and political risks

- We are involved in various legal proceedings that could have a material adverse effect on our business in the event of an outcome that is unfavourable to us.
- Environmental, health and safety regulation might adversely affect our business.
- Regulatory, political, economic and social conditions in the countries in which we have operations or projects could adversely affect our business and the market prices of our securities.

• We could be adversely affected by changes in government policies, including, but not limited to, the imposition of new taxes, charges or mining royalties.

#### Risks relating to the Introduction

- An active trading market for the Depositary Receipts on the Stock Exchange might not develop or be sustained, their trading prices might fluctuate significantly and the effectiveness of the liquidity arrangements might be limited.
- Certain of the information and statistics set out in the section in this Listing Document headed "Industry overview" has been extracted from various official sources. No independent verification has been carried out on such information and statistics.

#### Risks relating to our secondary listing

- The characteristics of the Brazilian and US capital markets and the Hong Kong capital markets are different.
- We are a Brazilian company principally governed by Brazilian laws and regulations.

#### Risks relating to our Company

- Our controlling shareholder (as defined in the Listing Rules) has control over some actions
  of our Company and the Brazilian Government has certain veto rights in respect of our
  Company.
- The By-laws authorise the issue of Shares forming part of the authorised share capital of our Company by the Board without any additional Shareholders' approval.
- Our governance and compliance processes might fail to prevent regulatory penalties and reputational harm.
- It could be difficult for investors to enforce any judgment obtained outside Brazil against us or any of our associates.
- The integration between our Company and those acquisition targets which are a key part of our Company's strategies might prove more difficult than anticipated.

#### Risks relating to the Depositary Receipts

- HDR Holders do not have the rights of Shareholders and must rely on the HDR Depositary to exercise on their behalf the rights of a Shareholder.
- HDR Holders will experience dilution in their indirect interest in our Company in the event of a private offering which is not extended to them.
- If HDR Holders exchange Depositary Receipts for Common Shares or Class A Preferred Shares, they may not be able to remit foreign currency from Brazil.
- HDR Holders will be reliant upon the performance of several service providers. Any breach
  by those service providers of their contractual obligations could have adverse consequences
  for an investment in Depositary Receipts.
- Withdrawals and exchanges of Depositary Receipts into Common Shares or Class A
  Preferred Shares traded on BM&FBOVESPA or exchanges of Common Shares and Class A
  Preferred Shares into ADRs traded on NYSE or NYSE Euronext Paris might adversely affect
  the liquidity of the Depositary Receipts.

- The time required for Depositary Receipts to be exchanged into Common Shares or Class A
  Preferred Shares (and vice versa) or for exchange of Common Shares or Class A Preferred
  Shares into ADRs (and vice versa) might be longer than expected and investors might not be
  able to settle or effect any sales of their securities during this period.
- Investors are subject to exchange rate risk between Reais, Hong Kong Dollars and U.S. Dollars.

Information in this Listing Document regarding future plans reflects current intentions, but is subject to change and should be considered accordingly. See the section in this Listing Document headed "Forward-looking statements".

In this Listing Document, unless the context otherwise requires, the following expressions shall have the following meanings. Certain other terms are explained in the section in this Listing Document headed "Glossary of technical terms".

ADRs American Depositary Receipts evidencing ADSs

ADR Depositary JPMorgan Chase Bank, N.A., in its capacity as depositary for the

ADRs, or any successor appointee in that capacity from time to

time

**ADR Holders** a registered holder of any ADR(s), being their legal owner

ADSs American Depositary Shares representing Common Shares and

Class A Preferred Shares, respectively, which are deposited with

JPMorgan Chase Bank, N.A.

AMF Autorité des Marchés Financiers, the French securities regulator

Annual Disclosure Document the Formulário de Referência filed annually by our Company with

the CVM

ANTAQ Agência Nacional de Transportes Aquaviários, the Brazilian

maritime transport agency

associate(s) unless the context requires otherwise, has the meaning set out in

the Listing Rules

AUD Australian Dollars, the lawful currency for the time being of

Australia

BM&FBOVESPA the São Paulo Stock Exchange

BM&FBOVESPA Listing Rules the rules issued by BM&FBOVESPA governing "Nível 1" listings

(the level at which the Common Shares and Class A Preferred Shares are listed) as amended, supplemented or otherwise

modified from time to time

BNDES Banco Nacional de Desenvolvimento Econômico e Social (National

Development Bank of Brazil)

BNDES Participações S.A., a holding company 100%-owned by

BNDES and a shareholder both in our Company and in Valepar

**Board** or **Board of Directors** the board of Directors of our Company

**Board of Executive Officers** the board of executive officers of our Company

Brazilian Mining Code Decree-Law No. 227/67 (regulated by Decree No. 62, 934/68) of

Brazil

Brazilian Government the government of the Federative Republic of Brazil

Business Day any day (other than a Saturday, Sunday or public holiday) on

which banks in Hong Kong are generally open for normal banking

business

By-laws of our Company, as amended from time to time

CAD Canadian Dollars, the lawful currency for the time being of

Canada

**CAGR** compound annual growth rate

CBLC Companhia Brasileira de Liquidação e Custódia, a custody,

clearing and settlement company incorporated in Brazil

CCASS the Central Clearing and Settlement System established and

operated by HKSCC

**CCASS Clearing Participant** a person admitted to participate in CCASS as a direct clearing or a

general clearing participant

CCASS Custodian Participant a person admitted to participate in CCASS as a custodian

participant

**CCASS Investor Participant** a person admitted to participate in CCASS as an investor

participant who may be an individual or joint individuals or a

corporation

CCASS Participant a CCASS Clearing Participant, a CCASS Custodian Participant or a

**CCASS Investor Participant** 

CCASS Rules General Rules of CCASS and CCASS Operational Procedure as

amended, supplemented or otherwise modified from time to time

CDI the benchmark interest rate in the Brazilian interbank market

CFR cost and freight, which indicates that all costs related to the

transportation of goods to a named port of destination will be

paid by the seller of the goods

**CHF** Swiss Francs, the lawful currency for the time being of Switzerland

China or PRC the People's Republic of China, excluding, for the purpose of this

Listing Document only, Hong Kong, Macau and Taiwan, unless

otherwise specified

**CIF** cost, insurance and freight, which indicates that all costs related to

the transportation of goods (including insurance expenses) to a named port of destination will be paid by the seller of the goods

**Class A Preferred Depositary** 

Receipts

the Depositary Receipts evidencing Class A Preferred HDSs

Class A Preferred HDSs the Hong Kong depositary shares representing Class A Preferred

**Shares** 

Class A Preferred Shares the class A preferred shares of no par value per share in the capital

of our Company, being part of the Preferred Shares

**COGS** cost of goods sold

Common Depositary Receipts the Depositary Receipts evidencing Common HDSs

Common HDSs the Hong Kong depositary shares representing Common Shares

Common Shares the common shares of no par value per share in the capital of our

Company

Companies Ordinance the Companies Ordinance, Chapter 32 of the Laws of Hong Kong

as amended, supplemented or otherwise modified from time to

time

Company, Parent Company, or Vale

Vale S.A., a *Sociedade por Ações* incorporated with limited liability and registered in Brazil, and also registered under CVM number 00417-0, whose principal executive offices are at Avenida Graça Aranha, No. 26, 20030-900 Rio de Janeiro, RJ, Brazil

**Competent Persons** 

the persons whose reports on our Material Reserves are summarised in Appendix III to this Listing Document

**Continuous Trading Period** 

means the trading hours specified in the Stock Exchange Rules comprising the morning session 10:00 a.m. to 12:30 p.m., the afternoon session 2:30 p.m. to 4:00 p.m. and the extended morning session as stipulated in the Stock Exchange Rules

Controlling Shareholder(s)

has the meaning set out in the Corporations Act (see the section of Appendix V to this Listing Document headed "Takeover Regulations — Brazilian requirements")

**Corporations Act** 

Brazilian Federal Law 6.404/76 as amended, supplemented or otherwise modified from time to time

Custodian

Banco Bradesco S.A., who has been nominated by the HDR Depositary to hold the HDSs, or any successor appointee from time to time

CVM

Comissão de Valores Mobiliários (Brazilian Securities and Exchange Commission)

CVM Rules

the rules and regulations issued by CVM including Normative Instructions, Deliberations and Guidance Opinions, as amended, supplemented or otherwise modified from time to time

**Deeds Poll** 

the two deeds poll executed by our Company and the HDR Depositary in favour of the HDR Holders on 30 November 2010, one of which relates to the Common HDSs and the other to the Class A Preferred HDSs

**Depositary Agreements** 

the two depositary agreements executed by our Company and the HDR Depositary on 24 November 2010, one of which relates to the Common HDSs and the other, to the Class A Preferred HDSs

**Depositary Receipts or HDRs** 

the depositary receipts to be the subject of the Introduction, comprising both Common Depositary Receipts and Class A Preferred Depositary Receipts

**Designated Dealer** 

J.P. Morgan Broking (Hong Kong) Ltd. and its respective affiliates

**Designated Period** 

the period of two months from the date of commencement of trading in the HDRs on the Stock Exchange

Director

a director, being a member of the Board of Directors, of our Company

The Depository Trust Company, a registered clearing agency with

the SEC

EFC

DTC

the Carájas railroad between the mines of the Northern System and the Ponta da Madeira maritime terminal, Brazil

18

**EFVM** the Vitória a Minas railroad between the mines of the

Southeastern System and the Tubarão port, Brazil

EU-27 those countries which are presently member states of the

**European Union** 

**EUR** or € euro, the lawful currency for the time being of participating

member states of the European Monetary Union

**Exchange Act** U.S. Securities Exchange Act of 1934

**Executive Officers** members of the Board of Executive Officers

FCA Ferrovia Centro-Atlântica S.A., a company 99.9% of whose shares

and voting rights are ultimately held by our Company

Fiscal Council the fiscal council of our Company established under the

**Corporations Act** 

**FNS** Ferrovia Norte-Sul S.A., operator of a railroad bearing its name in

Brazil and an indirect wholly-owned subsidiary of our Company

FOB free on board, which indicates that the purchaser pays for

shipping, insurance and all the other costs associated with

transportation of the goods to their destination

**GDP** gross domestic product, a measure of a country's overall economic

output

**Golden Shares** the preferred shares of no par value per share in the capital of our

Company held by the Brazilian Government

**Group** our Company and its subsidiaries

HDR Depositary JPMorgan Chase Bank, N.A., in its capacity as depositary for the

HDRs, or any successor appointee in that capacity from time to time

HDR Holders a registered holder of any Depositary Receipt(s), being their legal

owner

**HDR Register** the register of HDR Holders maintained in Hong Kong by the HDR

Registrar

HDR Registrar Computershare Hong Kong Investor Services Limited or any

successor appointee from time to time

HDSs Hong Kong depositary shares deposited with the Custodian for

the account of the HDR Depositary, comprising both Common

**HDSs and Class A Preferred HDSs** 

Hispanobras Companhia Hispano-Brasileira de Pelotização, a company 50.9%

of whose shares and 51.0% of whose voting rights are ultimately

held by our Company

**HKFRS** Hong Kong Financial Reporting Standards, comprising standards

and interpretations issued by the Hong Kong Institute of Certified

Public Accountants, including:

(i) Hong Kong Financial Reporting Standards;

(ii) Hong Kong Accounting Standards; and

(iii) Interpretations

HKSCC Hong Kong Securities Clearing Company Limited

HKSCC Nominees Limited, a wholly-owned subsidiary of HKSCC

HK\$, HK Dollars or Hong Kong

**Dollars** 

Hong Kong dollars, the lawful currency for the time being of Hong

Kong

Hong Kong Special Administrative Region of China

IFRS International Financial Reporting Standards

Industry Guide 7 — Description of property by issuers engaged or

to be engaged in significant mining operations issued by the SEC

**Introduction** the admission of the Depositary Receipts to secondary listing, and

trading, on the Main Board of the Stock Exchange, pursuant to the

**Listing Rules** 

Itabrasco Companhia Ítalo-Brasileira de Pelotização, a company 50.9% of

whose shares and 51.0% of whose voting rights are ultimately

held by our Company

Joint Policy Statement the Joint Policy Statement by the Stock Exchange and the SFC

Regarding the Listing of Overseas Companies dated 7 March 2007

Kobrasco Companhia Coreano-Brasileira de Pelotização, a company 50.0% of

whose shares and voting rights are ultimately held by our Company

Latest Practicable Date Thursday, 25 November 2010, being the latest practicable date for

the inclusion of certain information in this Listing Document prior

to its publication

**Listing Committee** the Listing Committee of the Stock Exchange

Listing Date the date, expected to be on or about Wednesday, 8 December

2010, on which the Introduction is expected to take place

**Listing Document** this listing document dated Thursday, 2 December 2010 issued by

our Company in relation to the Introduction

Listing Rules the Rules Governing the Listing of Securities on the Stock

Exchange, as amended, supplemented or otherwise modified

from time to time

LME The London Metal Exchange Limited

Log-in Logística Intermodal S.A., a company 31.3% of whose

shares and voting rights are ultimately held by our Company

Major Acquisition has the meaning set out in the Corporations Act (please see the

section of Appendix V to this Listing Document headed "Brazilian

Regulatory Provisions — Major acquisitions")

Major Subsidiaries those subsidiaries of our Company identified as material to our

operations, details of which are set out in Appendix VIII to this

Listing Document

Material Contracts material contracts, not being entered into in the ordinary course

of business, entered into by any member of the Group within the two years immediately preceding the date of this Listing

Document

Material Fact has the meaning set out in the CVM Rules (see the section of

Appendix V to this Listing Document headed "Brazilian

Regulatory Provisions — Disclosure of information")

Material Reserves those of our Group's reserves identified as material to our

operations, as set out in the section of this Listing Document headed "Waivers - Reports of Competent Persons on mineral

reserves"

MRS Logística S.A., a company 41.5% of whose shares and 37.9%

of whose voting rights are ultimately held by our Company

Nibrasco Companhia Nipo-Brasileira de Pelotização, a company 51.0% of

whose shares and 51.1% of whose voting rights are ultimately

held by our Company

Northern System our mining system located in the Carajás mineral province of the

Brazilian state of Pará, comprising the Serra Norte N4W, N4E and

N5 (11) complex

NYMEX The New York Mercantile Exchange, Inc.

NYSE the New York Stock Exchange

NYSE Euronext Paris the Professional Compartment of the NYSE Euronext Paris market

Ordinary Quorum the quorum required for the holding of a general Shareholders'

meeting of our Company (other than where a Special Quorum is required), which is constituted by the attendance of Shareholders holding at least one-quarter of the total voting Shares in issue who are entitled to attend and vote at the general Shareholders'

meeting, whether in person or by proxy

Preferred Shares the Class A Preferred Shares and the Golden Shares

Principal Share Register the register of Shareholders maintained in Brazil by the Principal

**Share Registrar** 

Principal Share Registrar Banco Bradesco S.A., the share registrar of the Company, being a

company incorporated in Brazil or any successor appointee from

time to time

PTI nternational Nickel Indonesia Tbk, a company 59.1% of whose

shares are ultimately held by our Company

Real, Reais, BRL or R\$ the lawful currency for the time being of Brazil, being the real

(singular) (plural: reais)

Samarco Mineração S.A., a company 50.0% of whose shares and

50.0% of whose voting rights are ultimately held by our Company

Sarbanes-Oxley Act the United States Public Company Accounting Reform and

Investor Protection Act of 2002

**SEC** the United States Securities and Exchange Commission

SFC the Securities and Futures Commission of Hong Kong

SFO the Securities and Futures Ordinance, Chapter 571 of the Laws of

Hong Kong, as amended, supplemented or otherwise modified

from time to time

Share Repurchases Code the Share Repurchases Code issued by the SFC, as amended,

supplemented or otherwise modified from time to time

**Shareholder** a holder of any Share(s)

Shares the Common Shares and the Preferred Shares

Simple Approval in relation to any matter to be considered and approved at a

general Shareholders' meeting of our Company, the approval of such matter by a simple majority of more than 50% of the votes cast by Shareholders attending the meeting in person or by proxy

Southeastern System our mining system located in the Iron Quadrangle region of the

Brazilian state of Minas Gerais, comprising three mining complexes (Itabira, Minas Centrais and Mariana), and in the Brazilian state of Mato Grosso do Sul, where the mines of Urucum

and Corumbá are located

Southern System our mining system located in the Iron Quadrangle region of the

Brazilian state of Minas Gerais, comprising the Minas Itabirito,

Vargem Grande and Paraopeba complexes

Special Approval in relation to any matter to be considered and approved at a

general Shareholders' meeting of our Company, the approval of such matter by a simple majority of more than 50% of the total voting Shares in issue of our Company (as opposed to 50% of the votes cast by Shareholders attending the meeting in person or by

proxy in the case of a Simple Approval)

**Special Quorum** the higher quorum required for the holding of a general

Shareholders' meeting of our Company for the approval of certain matters prescribed by the Corporations Act, which is constituted by the attendance of Shareholders holding at least two-thirds of the total voting Shares in issue who are entitled to attend and vote at the general Shareholders' meeting, whether in person or

by proxy

Sponsor J.P. Morgan Securities (Asia Pacific) Limited, which is licensed to

conduct Type 1 (dealing in securities), Type 4 (advising on securities), Type 6 (advising on corporate finance) and Type 7 (providing automated trading services) regulated activities under the SFO, and is a restricted licensed bank under the Hong Kong

Banking Ordinance, Chapter 155 of the Laws of Hong Kong

**Sponsor Agreement** the sponsor agreement between the Sponsor and our Company

dated 1 December 2010 relating to the engagement of the Sponsor by our Company in connection with the Introduction

Stock Exchange The Stock Exchange of Hong Kong Limited

**Stock Exchange Rules** the trading rules of the Stock Exchange

subsidiary unless the context requires otherwise, has the meaning set out in

the Listing Rules

substantial shareholder unless the context requires otherwise, has the meaning set out in

the Listing Rules

Takeovers Code the Code on Takeovers and Mergers issued by the SFC, as

amended, supplemented or otherwise modified from time to time

TJLP the benchmark Brazilian long-term interest rate

Track Record Period the three financial years of our Company ended 31 December

2009 and the six months ended 30 June 2010

**UK, U.K. or United Kingdom** the United Kingdom of Great Britain and Northern Ireland

Urucum Mineração S.A., an indirect wholly-owned subsidiary of

our Company

US, U.S. or United States United States of America

US\$, USD or U.S. Dollars United States dollars, the lawful currency for the time being of the

**United States** 

**US GAAP or U.S. GAAP** United States generally accepted accounting principles

Vale Australia Pty Ltd, an indirect wholly-owned subsidiary of our

Company

wholly-owned subsidiary of our Company

Vale Colombia Ltd, an indirect wholly-owned subsidiary of our

Company

Vale Fertilizantes Vale Fertilizantes S.A., a company 78.9% of whose total equity

capital was ultimately held by our Company as at the Latest

**Practicable Date** 

Vale Manganês S.A., an indirect wholly-owned subsidiary of our

Company

Valepar S.A., our controlling shareholder (as defined in the Listing

Rules)

Zhuhai YPM Pellet Co., Ltd., a company 25.0% of whose shares

and 25.0% of whose voting rights are ultimately held by our Company and the remainder of whose shares and voting rights

are held by independent third parties

% per cent. or per centum

In this Listing Document, references to "our Company"; "us"; "we"; and/or "our" are references to the Company and, in the latter three cases (save where the context otherwise requires) to the Group.

Amounts denominated in Reais have been converted into U.S. Dollars in this Listing Document for the purpose of illustration only. No representation is made that any amounts in Reais can be or could have been at the relevant dates converted at the given rate or any other rates or at all.

This glossary contains explanations of certain terms used in this Listing Document in connection with our Company and/or the Group and its business. The terminology and its given meaning might correspond to usage and meaning considered standard by, or in respect of, other mining or industrial companies, but we give no assurance that it does.

alumina aluminium oxide, the main component of bauxite, and extracted

from bauxite ore in a chemical refining process. It is the principal raw material in the electro-chemical process from which

aluminium is produced;

aluminium a white metal that is obtained in the electro-chemical process of

reducing aluminium oxide;

anthracite the hardest coal type, which contains a high percentage of fixed

carbon and a low percentage of volatile matter. Anthracite is the highest-ranked coal and contains 90% fixed carbon, more than any other form of coal. Anthracite has a semi-metallic lustre and is capable of burning with little smoke. Mainly used for

metallurgical purposes;

austenitic stainless steel steel that contains a significant amount of chromium and

sufficient nickel to stabilize the austenite microstructure, giving it good formability and ductibility and improving its high temperature resistance. On average, austenitic stainless steel usually contains 8 to 10% nickel. It is used in a wide variety of applications, ranging from consumer products to industrial process equipment, as well as for power generation and transportation equipment, kitchen appliances and many other applications where strength, corrosion and high temperature

resistance are required;

bauxite a rock composed primarily of hydrated aluminium oxides. It is the

principal ore of alumina, the raw material from which aluminium

is made;

beneficiation a variety of processes whereby extracted ore from mining is

reduced to particles that can be separated into ore-mineral and waste, the former suitable for further processing or direct use;

BOF the vast majority of steel manufactured in the world is produced

the vast majority of steel manufactured in the world is produced using the basic oxygen furnace. Basic oxygen steelmaking is a method of primary steelmaking in which carbon-rich molten pig iron is made into steel. High purity oxygen is blown through the molten bath to lower carbon, silicon, manganese, and phosphorous content of the iron, while various fluxes are used

to reduce the sulphur and phosphorous levels;

brownfield project a mining project situated in a location which has previously been

the subject of mining development, such as improvements or amendments to existing projects to increase their useful life

and/or productivity;

CHPP coal handling preparation plant;

coal is a black or brownish-black solid combustible substance

formed by the decomposition of vegetable matter without access to air. The rank of coal, which includes anthracite, bituminous coal

(both are called hard coal), sub-bituminous coal, and lignite, is based on fixed carbon, volatile matter, and heating value;

cobalt cobalt is a hard, lustrous, silver-gray metal found in ores, and used

in the preparation of magnetic, wear-resistant, and high-strength alloys (particularly for jet engines and turbines). Its compounds are also used in the production of inks, paints, and varnishes;

**coke** coal that has been processed in a coke oven, for use as a reduction

agent in blast furnaces and in foundries for the purposes of

transforming iron ore into pig iron;

concentration physical, chemical or biological process to increase the grade of

the metal or mineral of interest;

copper a reddish brown metallic element. Copper is highly conductive,

both thermally and electrically. It is highly malleable and ductile

and is easily rolled into sheet and drawn into wire;

copper anode copper anode is a metallic product of the converting stage of the

smelting process that is cast into blocks and generally contains 99% copper grade, which requires further processing to produce

refined copper cathodes;

copper cathode copper plate with purity higher than or equal to 99.9% that is

produced by an electrolytic process;

copper concentrate material produced by concentration of copper minerals contained

in the copper ore. It is the raw material used in smelters to produce

copper metal;

**DR** direct reduction, being the process that removes oxygen from iron

ore by using natural gas or coal. The resulting product has an iron

grade of 90 to 92%;

**DRI** direct reduced iron, being iron ore lumps or pellets converted by

the direct reduction process, used mainly as a scrap substitute in

electric arc furnace steelmaking;

**DWT** deadweight ton, being the measurement unit of a vessel's

capacity for cargo, fuel oil, stores and crew, measured in metric tons of 1,000 kg. A vessel's total deadweight is the total weight the

vessel can carry when loaded to a particular load line;

**EAF** the electric arc furnace is the principal furnace type for the electric

production of steel. The primary application of the electric arc furnace is for the re-melting of steel scrap; however, electric arc furnaces can be charged with limited amounts of iron scrap, pig

iron and direct reduced iron;

**electrowon copper cathode** refined copper cathode produced by an electrochemical process in

which copper is recovered by dissolving copper anode in an electrolyte and plating it onto an electrode. Electrowon copper

cathodes generally contain 99.99% copper grade;

embedded derivatives a financial instrument within a contractual arrangement such as leases, purchase agreements and guarantees. Its function is to

modify some or all of the cash flow that would otherwise be

required by the contract, such as caps, floors or collars;

Fe unit a measure of the iron grade in the iron ore that is equivalent to 1%

iron grade in one metric ton of iron ore;

ferroalloys ferroalloys of iron that contain one or more other

chemical elements. These alloys are used to add these other elements into molten metal, usually in steelmaking. The principal ferroalloys are those of manganese, silicon and chromium;

gold a precious metal sometimes found free in nature, but usually

found in conjunction with silver, quartz, calcite, lead, tellurium, zinc or copper. It is the most malleable and ductile metal, a good conductor of heat and electricity and unaffected by air and most

reagents;

grade the proportion of metal or mineral present in ore or any other

host material;

**greenfield project** a mining project situated in a location which has not previously

been the subject of mining development;

hard metallurgical coal metallurgical coking coal with the required properties to produce

a stronger or harder metallurgical coke;

hematite ore hematite is an iron oxide mineral, but also denotes the high-grade

iron ore type within the iron deposits;

hematitinha a lump ore originated from our Southern System with the coarsest

particle size in the range of  $6.35\,\mathrm{mm}$  to  $19\,\mathrm{mm}$  in diameter, varying from  $75\,\mathrm{to}\,90\%$  between different mines and ores, that is only sold

in the Brazilian domestic market;

in-situ moisture the natural water content of coal reserves on the basis of sampling

for the purposes of the relevant reserves determinations;

iridium a dense, hard, brittle, silvery-white transition metal of the

platinum family that occurs in natural alloys with platinum or osmium. Iridium is used in high-strength alloys that can withstand high temperatures, primarily in high-temperature apparatus,

electrical contacts, and as a hardening agent for platinum;

iron ore pellets agglomerated ultra-fine iron ore particles of a size and quality

suitable for particular iron making processes. Our iron ore pellets

range in size from 8 mm to 18 mm;

itabirite ore itabirite is a banded iron formation and denotes the low-grade

iron ore type within the iron deposits;

kaolin a fine white aluminium silicate clay derived from rock composed

chiefly of feldspar, which is used as a coating agent, filler, extender and absorbent in the paper, paint, ceramics and other industries;

kt thousand metric tons;

**lump ore** iron ore or manganese ore with the coarsest particle size in the

range of 6.35 mm to 50 mm in diameter, but varying slightly

between different mines and ores;

manganese a hard brittle metallic element found primarily in the minerals

pyrolusite, hausmannite and manganate. Manganese is essential

to the production of virtually all steels and is important in the production of cast iron:

metallurgical coal a bituminous hard coal with a quality that allows the production

of coke. Normally used in coke ovens for metallurgical purposes;

methanol an alcohol fuel largely used in the production of chemical and

plastic compounds;

mineral deposit(s) or mineralised material(s)

a mineralised body that has been intersected by a sufficient number of closely spaced drill holes and/or underground or surface samples to support sufficient tonnage and grade of metal(s) or mineral(s) of interest to warrant further exploration-

development work;

Mt million metric tons;

Mtpy million metric tons per year;

MW megawatts;

nickel a silvery white metal that takes on a high polish. It is hard,

malleable, ductile, somewhat ferromagnetic, and a fair conductor of heat and electricity. It belongs to the iron-cobalt group of metals and is chiefly valuable for the alloys it forms, such as

stainless steel and other corrosion-resistant alloys;

nickel matte an intermediate smelter product that must be further refined to

obtain pure metal;

nickel pig iron a low-grade nickel product, made from lateritic ores, suitable

primarily for use in stainless steel production. Nickel pig iron typically has a nickel grade of 1.5 to 6% if produced from blast furnaces and 10 to 25% if produced from electric furnaces, with iron accounting for most of the balance. Nickel pig iron can also contain chrome, manganese, and impurities such as phosphorus,

sulphur and carbon;

net ton (the weight of the goods being transported excluding the

weight of the wagon) kilometre;

open-pit, open-cast or open-

cut mining

method of extracting rock or minerals from the earth by their removal from the surface. Open-pit, open-cast or open-cut mines

removal from the surface. Open-pit, open-cast or open-cut mines for extraction of ore are used when deposits of commercially useful minerals or rock are found near the surface; that is, where the overburden (surface material covering the valuable deposit) is relatively thin or the material of interest is structurally unsuitable

for underground mining;

Order-in-Council Leases leases of mining lands in the Canadian province of Manitoba

made under Manitoba provincial regulation 100/56 filed on

19 December 1956;

oxides compounds of oxygen with another element. For example,

magnetite is an oxide mineral formed by the chemical union of

iron with oxygen;

P205 phosphoric acid, which is the main input for the production of

phosphate fertilizers;

palladium a silver-white metal that is ductile and malleable, used primarily in

automobile-emissions control devices, jewellery, electrical and

chemical applications;

pellet feed ultra-fine iron ore (less than 0.15mm) generated by mining and

grinding, which is aggregated into iron ore pellets through an

agglomeration process;

pelletising iron ore pelletising is a process of agglomeration of ultra-fines

produced in iron ore exploitation and concentration steps. The three basic stages of the process are: (i) ore preparation (to get the correct fineness); (ii) mixing and balling (additive mixing and ball formation); and (iii) firing (to get ceramic bonding and strength);

**phosphate** a phosphorous compound, which occurs in natural ores and is

used as a raw material for primary production of fertilizer

nutrients, animal feeds and detergents;

pig iron product of smelting iron ore usually with coke and limestone in a

blast furnace;

platinum a dense, precious, grey-white transition metal that is ductile and

malleable and occurs in some nickel and copper ores. Platinum is resistant to corrosion and is used in jewellery, laboratory equipment, electrical contacts, dentistry, automobile emissions control devices, flat panel televicions and hard dick drives:

control devices, flat panel televisions and hard disk drives;

platinum group metals or

**PGMs** 

consist of platinum, palladium, rhodium, ruthenium, osmium and iridium, of which osmium has no industrial application and no

economic value, while platinum and palladium have the greatest

economic value;

potash a potassium chloride compound used as simple fertilizer and in

the production of mixture fertilizer;

precious metals metals valued for their colour, malleability, and rarity, with a high

economic value driven not only by their practical industrial use, but also as investments. The widely-traded precious metals are

gold, silver, platinum and palladium;

primary nickel nickel produced directly from mineral ores;

probable (indicated) reserves subject always to the full terms of its definition for the purposes of

the reports summarised in Appendix III to this Listing Document, 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;

proven (measured) reserves subject always to the full terms of its definition for the purposes of

the reports summarised in Appendix III to this Listing Document, 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:

pulverised coal injection or PCI

type of coal with specific properties ideal for direct injection via the tuyeres of blast furnaces. This type of coal does not require any processing or coke making, and can be directly injected into the blast furnaces, replacing lump cokes to be charged from the top of the blast furnaces:

recovery rate

the percentage of valuable constituent derived from an ore, a measure of mining or extraction efficiency;

reserves

subject always to the full terms of its definition for the purposes of the reports summarised in Appendix III to this Listing Document, part of a mineral deposit that could be economically and legally extracted or produced at the time of the reserve determination;

rhodium

a hard, silvery-white, durable metal that has a high reflectance and is primarily used in combination with platinum for automobile-emission control devices and as an alloying agent for hardening platinum;

run-of-mine or ROM

ore in its natural (unprocessed) state, as mined, without having been crushed;

ruthenium

a hard, white metal that can harden platinum and palladium used to make severe wear-resistant electrical contacts and in other applications in the electronics industry;

seaborne market

comprises the total ore trade between countries using ocean bulk vessels;

secondary or scrap nickel

stainless steel or other nickel-containing scrap;

silver

a ductile and malleable metal used in photography, coins and medal fabrication, and in industrial applications;

sinter feed

(also known as fines) iron ore fines with particles in the range of 0.15 mm to 6.35 mm in diameter. Suitable for sintering;

sintering

the agglomeration of sinter feed, binder and other materials, into a coherent mass by heating without melting, to be used as metallic charge into a blast furnace;

slabs

the most common type of semi-finished steel. Traditional slabs measure 10 inches thick and 30 to 85 inches wide (and average 20 feet long), while the output of the recently developed "thin slab" casters is two inches thick. Subsequent to casting, slabs are sent to the hot-strip mill to be rolled into coiled sheet and plate products;

stainless steel

alloy steel containing at least 10% chromium and with superior corrosion resistance. It may also contain other elements such as nickel, manganese, niobium, titanium, molybdenum, copper, in order to improve mechanical, thermal properties and service life. It is primarily classified as austenitic (200 and 300 series), ferritic (400 series), martensitic, duplex or precipitation hardening grades;

stainless steel scrap ratio the ratio of secondary nickel units (either in the form of nickel-

bearing, stainless steel scrap, or in alloy steel, foundry and nickelbased alloy scrap) relative to all nickel units consumed in the

manufacture of new stainless steel;

thermal coal a type of coal that is suitable for energy generation in thermal

power stations;

TOE tons of oil equivalent;

troy ounce one troy ounce equals 31.103 grammes; and

underground mining mineral exploitation in which extraction is carried out beneath the

earth's surface.

#### FORWARD-LOOKING STATEMENTS

This Listing Document contains statements that may constitute forward-looking statements, being statements as to our beliefs, expectations, intentions and/or predictions for the future.

Forward-looking statements reflect our current view with respect to future events and are, by their nature, subject to risks, uncertainties and assumptions, including the risk factors as disclosed in the section in this Listing Document headed "Risk factors".

Many of those forward-looking statements are characterised by the use of words such as "anticipate"; "believe"; "could"; "estimate"; "expect"; "intend"; "may"; "might"; "plan"; "potential"; "project"; "should"; "will"; including in respect of certain events or conditions that "could"; "may"; "might"; "should" or "will" occur, and other similar words.

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, divestment 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 in the section in this Listing Document headed "Risk factors".

We caution you that forward-looking statements are not guarantees of future performance and come with no assurance that those beliefs, expectations, intentions and/or predictions will prove to have been correct. These statements involve risks and uncertainties and you are cautioned not to place undue reliance on them. 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:

- the countries in which we operate, particularly, but without limitation, Brazil and Canada;
- the global economy;
- capital markets and fluctuating metal prices;
- the mining and metals business and their dependence upon global industrial production, which is cyclical by nature;
- the high degree of global competition in the markets in which we operate;
- the inherent risks involved in the exploration and development of mineral properties;
- the uncertainties involved in interpreting drilling results and other geological data;
- the possibility of project cost overruns or unanticipated costs or expenses;
- uncertainties related to completion results of planned exploration and development programmes on material concessions;

### FORWARD-LOOKING STATEMENTS

- issuances of licences and permits;
- availability of costs and financing needed in the future; and
- all other risks and uncertainties described in the section in this Listing Document headed "Risk factors".

Forward-looking statements speak only as of the date they are made and reflect only the opinions and estimates of management as at that time. Save in accordance with, and to the extent required by, applicable law or regulation, we undertake no obligation to update them in light of new information, circumstances or future developments or should management's estimates or opinions change.

All forward-looking statements in this Listing Document, and any other such statement properly attributed to us or to any person acting on our behalf, are expressly qualified by reference to these cautionary statements.

Holding the Depositary Receipts is subject to a number of risks. Investors should consider carefully all of the information set out in this Listing Document and, in particular, should evaluate the following risks and special considerations associated with: our business and the industry we operate in; the Introduction; our secondary listing; our Company; and the Depositary Receipts. The occurrence of any of the following risks could have a material adverse effect on the business, results of operations, financial condition and future prospects of the Group and cause the market price of Shares and/or the Depositary Receipts representing them to fall significantly.

We believe that there are certain risks involved in our operations, some of which are beyond our control. These risks can be broadly categorised into:

- (I) risks relating to our business and the industry we operate in;
- (II) risks relating to the Introduction;
- (III) risks relating to our secondary listing;
- (IV) risks relating to our Company; and
- (V) risks relating to the Depositary Receipts.

This information is given as of the date of this Listing Document.

#### I. RISKS RELATING TO OUR BUSINESS AND THE INDUSTRY WE OPERATE IN

We believe risks relating to our business and the industry we operate in can be broadly categorised into:

- (a) economic risks;
- (b) project risks; and
- (c) legal, regulatory and political risks.

#### (a) ECONOMIC RISKS

The mining industry is highly exposed to the cyclicality of global economic activity and requires significant investments of capital.

The mining industry is primarily a supplier of industrial raw materials. Industrial production tends to be the most cyclical and volatile component of global economic activity, which might be reflected in instability of demand for minerals and metals. Furthermore, investment in mining requires a substantial amount of funds in order to replenish reserves, expand production capacity, build infrastructure and preserve the environment. Our ability to continue such significant investment, to raise additional financing and to maintain ongoing operations; the market price of the Shares, ADRs and/or Depositary Receipts; and our financial condition and results of operations are all directly related to the demand for, and price of, our mineral and metals products.

# A decline in the 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 approximately 59% of our operating revenues in 2009, are used to produce carbon steel. Nickel, which accounted for approximately 14% of our operating revenues in 2009, is used mainly to produce stainless and alloy steels. Demand for steel depends heavily on global economic conditions and 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, consolidation in the steel industry could result in vertical backward integration of the steel industry which in turn could reduce the global seaborne trade of iron ore.

# We might not be able to adjust production volume in a timely or cost-efficient manner in response to changes in demand.

During periods of high demand, our ability rapidly to increase production capacity is limited, which could render us unable to satisfy our clients' demand for our products. Moreover, we might be unable to complete expansions and greenfield projects in time to take advantage of rising demand for iron ore. When demand exceeds our production capacity, we might meet excess customer demand by purchasing iron ore, iron ore pellets or nickel from joint ventures or unrelated parties and reselling it, which would increase our costs and narrow our operating margins. If we are unable to satisfy excess customer demand in this way, we could lose customers. In addition, operating close to full capacity might expose us to higher costs, including demurrage fees due to capacity restraints in our logistics systems.

Conversely, we might have to operate at significant idle capacity during periods of weak demand. By way of example, during parts of 2009 we suspended iron ore operations in some mines in the Southern and Southeastern Systems in the Brazilian state of Minas Gerais and at our Itabrasco, Hispanobras, Fabrica and São Luis pelletising plants. Operating at significant idle capacity might expose us to higher unit production costs since a significant portion of our cost structure is fixed in the short-term due to the high capital intensity of mining operations. In addition, efforts to reduce costs during periods of weak demand could be limited by labour regulations or previous labour or government agreements.

# The shift to quarterly pricing based on short-term market references and consequent price volatility for iron ore could adversely affect our iron ore business.

We have reached agreements, permanent or provisional, with all our iron ore clients around the globe, involving 100% of the sales volumes under contracts, to move from annual benchmark contracts to index-based contracts.

Since the late nineties a notable change started to take place. Emerging economies, those which are involved in structural changes and consequently large metals-intensive expansion in manufacturing, housing and infrastructure, took the lead on a rapid global economic growth path. In particular, China, a high-growth economy, began to bring about significant changes in the global demand for minerals and metals.

The new global growth pattern produced a major change in the dynamics of the iron ore market. Reflecting the structural change in the demand for metals, iron ore seaborne trade grew by an annual average rate of 7.7%, well above the pace of 4.0% per annum for global GDP growth, in the period between 2000 and 2009, and China's share increased to 68% in 2009 from only 2.5% in 1985 and 12% in 1999.

Transactions on a CFR basis increased and a spot market for iron ore developed, expanding continuously and reaching an estimated share of 40% of global seaborne trade in 2009. It now stands at about US\$40 billion, twice the size of the global nickel market.

The old benchmark price system for iron ore, based on annual bilateral negotiations, has been replaced by a new system, as agreed with our clients, which establishes a quarterly iron ore price based on a three-month average of price indices for the period ending one month before the onset of the new quarter.

While the new pricing system presently allows us to exploit rising prices for iron ore at a time of increased demand, in a time of decreased demand, iron ore price decline would be reflected in the results of our operations more guickly than under the old annual benchmarking system.

As prices are now on a landed basis, they recognise differences in geographical distance to our operations. Landed prices put us at a competitive disadvantage to those of our competitors who share a closer geographical proximity to our principal target markets, Asia in particular. In order to mitigate this competitive disadvantage, we are building a low-cost portfolio of maritime freight, entailing among other things the launch of a new and more efficient class of ore carriers, with the objective of reducing the level of freight prices and mitigating freight price volatility for our clients.

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

Nickel and copper are sold in an active global market and traded on commodity exchanges, such as LME and NYMEX. 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 substitution costs, inventory levels, investments by commodity funds and others and actions of participants in the commodity markets.

# Increased availability of alternative nickel sources or substitution of nickel from end use applications could adversely affect our nickel business.

Demand for nickel could be adversely impacted by the substitution of nickel by other materials in present 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 2009, the stainless steel scrap ratio fell from 49% to 43%. Nickel pig iron, a product developed by Chinese steel and alloy makers that utilises lateritic nickel ores, competes with other nickel sources in the production of stainless steel. In 2009, estimated nickel pig iron production increased 17%, representing 7% of global nickel output. Demand for primary nickel might be negatively affected by the direct substitution of primary nickel with other materials in current applications. In response to high nickel prices or other factors, producers and consumers of stainless steel could partially shift from stainless steel with high nickel content (series 300) to stainless steel with either lower nickel content (series 200) or no nickel content (series 400), which would adversely affect demand for nickel.

# Adverse economic developments in China could have a negative impact on our revenues, cash flow and profitability. Our results of operations are subject, to a significant extent, to political and social developments in China.

China has been the main driver of global demand for minerals and metals over the last few years. In 2009, Chinese demand represented 68% of global demand for seaborne iron ore, 44% of global demand for nickel and 40% of global demand for copper. The percentage of our operating revenues attributable to sales to consumers in China was 37.6% in 2009. Although China largely withstood the recent global recession, a contraction of Chinese economic growth could result in lower demand for our products, leading to lower revenues, cash flow and profitability. Poor performance in the Chinese real estate sector, one of the largest consumers of carbon steel in China, could also negatively impact our results.

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

Energy costs are a significant component of our production costs, representing 15.6% of our total cost of goods sold in 2009. To fulfil our energy needs, we depend on the following, all measured in percentage proportion of energy needs by tons of oil equivalent (TOE): oil by-products, which represented 39% of total energy needs in 2009; electricity (38%); coal (15%); and natural gas (6%).

Fuel costs represented 9.4% of our cost of goods sold in 2009. Increases in oil and gas prices would adversely affect margins in our logistics services, mining, iron ore pellets and nickel businesses.

Electricity costs represented 6.2% of our total cost of goods sold in 2009. If we are unable to secure reliable access to electricity at acceptable prices, we could be forced to curtail production or could experience higher production costs, either of which would adversely affect our results of operations.

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 enough growth in power generation capacity to meet future consumption increases. Future shortages, and government efforts to respond to or prevent shortages, might adversely impact the cost or supply of electricity for our Brazilian operations not relying on our own power generation capacity, which can be 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.

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

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

A substantial portion of our revenues and debt is denominated in U.S. Dollars, and changes in exchange rates could result in:

- losses or gains on our net U.S. Dollar-denominated indebtedness and accounts payable; and
- fair value losses or gains on our currency derivatives used to stabilise our cash flow in U.S. Dollars.

In the financial years ended 31 December 2007 and 31 December 2009 and the six month period ended 30 June 2010, we had currency gains of US\$1,639 million, US\$665 million and US\$3 million, respectively; in the financial year ended 31 December 2008, we had currency losses of US\$1,011 million. In addition, the price volatility of the 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 (64% in 2009) and the Canadian Dollar (16% in 2009), while our revenues are mostly U.S. Dollar-denominated. We expect currency fluctuations to continue to affect our financial income, expense and cash flow generation. For details of historic fluctuations in exchange rates, see the section in this Listing Document headed "Industry overview — Exchange rate fluctuations."

Significant volatility in currency prices might also result in disruption of foreign exchange markets and might limit our ability to transfer or to convert certain currencies into U.S. Dollars and other currencies for the purpose of making timely payments of interest and principal on our indebtedness. The central banks and governments of some of the countries in which we operate do, and might continue to, institute restrictive exchange policies.

Information in this Listing Document regarding future plans reflects current intentions and is subject to change.

Whether we ultimately implement the business plans described in this Listing Document, and whether we achieve the objectives described in this Listing Document, will depend on a number of factors including, but not limited to:

- the availability and cost of capital;
- current and projected prices;
- markets;
- costs and availability of drilling services;
- costs and availability of heavy equipment, supplies and personnel;
- success or failure of activities in similar areas to those in which our projects are situated; and
- changes in estimates of project completion costs.

We will continue to gather information about our projects, and it is possible that additional information will cause us to alter our schedule or determine that a project should not be pursued at all. Accordingly, our plans and objectives might change from those described in this Listing Document. See also the section in this Listing Document headed "Forward-looking statements".

# (b) PROJECT RISKS

Concessions, authorisations, licences and permits are subject to renewal and various uncertainties and we might only renew some of our mining concessions a limited number of times and for limited periods of time.

Some of our mining concessions outside Brazil are subject to fixed expiry dates and might only be renewed a limited number of times for a limited period of time. Apart from mining concessions, we may need to obtain various authorisations, licences and permits from governmental or other regulatory bodies in connection with the operation of our mines, which may be subject to fixed expiry dates or periodic review or renewal. While we anticipate that renewals will be given as and when sought, there is no assurance that such renewals will be given as a matter of course and there is no assurance that new conditions will not be imposed in connection therewith. Fees for mining concessions might increase substantially due to the passage of time from the original issuance of each individual exploration licence. If so, our business objectives might be impeded by the costs of holding and/or renewing our mining concessions. Accordingly, we need to assess continually the mineral potential of each mining concession, particularly at the time of renewal, to determine if the costs of maintaining the mining concessions are justified by the results of operations to date, and might elect to let some of our concessions lapse. There can be no assurance that such concessions will be obtained on terms favourable to us, or at all, for our future intended mining and/or exploration targets.

Our reserve estimates might materially differ from mineral quantities that we might actually be able to recover; our estimates of mine life might prove inaccurate; and market price fluctuations and changes in operating and capital costs might render certain 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 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 may vary, and results of our mining and production subsequent to the date of an estimate may lead to revisions of estimates. Reserve estimates and estimates of mine life may require revisions based on actual production experience and other factors. For example, fluctuations in the market prices of minerals and metals, reduced recovery rates or increased operating and capital costs due to inflation, exchange rates or other factors may render proven and probable reserves uneconomic to exploit and may ultimately result in a restatement of reserves.

We report our iron ore reserves in this Listing Document and will report our iron ore and other mineral reserves on a continuing basis after completion of the Introduction under reporting standards which are not one of the prescribed standards under the Listing Rules.

We report our iron ore reserves in this Listing Document and will report our iron ore and other mineral reserves on a continuing basis after completion of the Introduction under the reporting standard constituted by SEC's Industry Guide 7. This standard differs in material respects from other reporting standards with which investors might be familiar, including NI 43-101 (being one of the reporting standards accepted under Rule 18.29 of the Listing Rules). The differences between Industry Guide 7 and NI 43-101 include feasibility study requirements; government permit requirements; commodity pricing; the possibility for disclosure of mineral resources as well as mineral reserves; and the qualifications required of those reporting the reserves.

### Drilling and production risks 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 optimising the recovery of metal contained in ore;
- obtain environmental and other licences;
- construct mining, processing facilities and infrastructure required for greenfield projects;
   and
- obtain the ore or extract the minerals 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 in particular.

#### We might face shortages of equipment, services and skilled personnel.

The mining industry has faced worldwide shortages of mining and construction equipment, spare parts, contractors and other skilled personnel during periods of high demand for minerals and metals and intense development of mining projects. We might experience longer lead-times for mining equipment and problems with the quality of contracted engineering, construction and maintenance services. Recruiting, retaining and training qualified personnel is critical to our success. The number of persons skilled in the acquisition, exploration and development of mining properties is limited and competition within the mining industry for such personnel is intense. We compete with other mining companies for highly skilled executives and staff with relevant industry and technical experience, and we might 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.

# Labour disputes might disrupt our operations from time to time.

A substantial number of our employees, and some of the employees of our subcontractors, are represented by labour unions and are covered by collective bargaining or other labour agreements, which are subject to periodic negotiation. Negotiation might become more difficult in times of higher commodity prices.

The right to strike is recognised in almost all of the countries where we have operations, so that plants in operation or essential projects, both ours and those of our service providers, could be affected by strikes and other stoppages.

A number of our employees at our Canadian nickel operations in Sudbury and Port Colborne, Ontario were on strike in the period from July 2009 to July 2010. Striking employees returned to work in Ontario in the last week of July and the first week of August 2010. A substantial number of employees working in mining and mill operations at Voisey's Bay, Canada have been on strike since August 2009 and continue to be on strike, which had resulted in reduced production from these operations prior to our resumption of full production by June 2010 utilising management, unionised employees who were not on strike and non-unionised staff. For further details, see the section in this Listing Document headed "Business — Employees and labour relations".

# Ineffective project management, operational problems or prolonged periods of severe weather conditions could materially and adversely affect our business and results of operations.

Ineffective project management, operational breakdowns or severe weather conditions might require us to suspend or curtail operations, which could generally reduce our productivity. Ineffective project management could mean that the logistics, including plant, machinery and transport, are not in place for continuous operation of our activities. Operational breakdowns could entail failure of critical plant and machinery. For an example of severe weather conditions, in 2009 intense rainfall caused rainwater to leak from our drainage system at the Conceição mine, requiring us to reconstruct the drainage system so as to obtain approval from the state environmental agency. There can be no assurance that ineffective project management, operational problems or severe weather will not occur. Any damages to our projects or delays in our operations caused by ineffective project management, breakdowns or prolonged periods of severe weather could materially and adversely affect our business and results of operations.

# 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.

# We might 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 programmes, which involve significant capital expenditures, might 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.

# Some 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 pelletising, coal and steel businesses through joint ventures with other companies. Important parts of our electricity investments and all of our oil and gas projects 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 skilled and competent managerial personnel. If any of our partners fails to observe its commitments, the affected joint venture or consortium might not be able to operate in accordance with its business plans, or we might have to increase the level of our investment to implement these plans. For example, the joint venture company that owns our Vale New Caledonia, formerly Goro, project in New Caledonia has a minority shareholder, Sumic Nickel Netherlands B.V., with a put option to sell us 25%, 50%, or 100% of its shares. Sumic Nickel Netherlands B.V. may exercise the put option if the cost of the project exceeds a certain value agreed between the shareholders and certain other conditions are met.

#### (c) LEGAL, REGULATORY AND POLITICAL RISKS

We are involved in various legal proceedings that could have a material adverse effect on our business in the event of an outcome that is unfavourable to us.

We are involved in various legal proceedings in which adverse parties have claimed substantial amounts. Although we are vigorously contesting them, the outcomes of these proceedings are uncertain and may result in obligations that could materially adversely affect our business and the value of the Shares, ADRs and Depositary Receipts. For additional information, please see the section in this Listing Document headed "Business — Legal proceedings". In our consolidated financial statements for the period of nine months ended 30 September 2010 we made an aggregate provision in respect of litigation of US\$2,028 million, which represents our Company's view of prudent allowance for the contingencies of outstanding litigation based on the current progress of actions against us and legal advice on the relevant claims. In addition to the contingencies for which we have made provisions, we were defendants in claims as at 30 September 2010 where in our opinion, and based on the advice of our legal counsel, the likelihood of loss was possible but not probable, in the total amount of US\$4,343 million and for which no provision has been made.

#### Environmental, health and safety regulation might adversely affect our business.

Our operations involve the use, handling, discharge and disposal of hazardous materials into the environment and the use of natural resources, and nearly all aspects of our activities, products, services and projects around the world are subject to environmental, health and safety regulations, which may expose us to increased litigation or increased costs. Such regulations require us to obtain environmental licences, permits and authorisations for our operations, and to conduct environmental impact assessments in order to get the approval for our projects and permission

for initiating construction. Additionally, all significant changes to existing operations must also undergo the same procedure. 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 mineral research, mining, pelletising activities, railway and marine services, decommissioning, 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 socially responsible and environmentally sustainable practices, which could entail significant costs and reduce our profitability. Private litigation relating to these or other matters may adversely affect our financial condition or cause harm to our reputation.

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 and products, creating new requirements for the issuance or renewal of environmental licences, raising our costs or requiring us to engage in expensive reclamation efforts. Concern over climate change and efforts to comply with international undertakings under the Kyoto Protocol could lead governments to impose limits on carbon emissions applicable to our operations, which could adversely affect our operating costs or our capital expenditure requirements. For example, the Brazilian Government passed a carbon emissions law (*Política Nacional de Mudanças Climáticas*) in December 2009 although it has not yet promulgated rules establishing specific limits on carbon emissions from mining activities.

Regulatory, political, economic and social conditions in the countries in which we have operations or projects could adversely affect our business and the market prices of our securities.

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

Our operations depend on authorisations and concessions from governmental regulatory agencies of the countries in which we operate. For details about some of the authorisations and concessions upon which our operations depend, see Appendix VII to this Listing Document. We are subject to laws and regulations in many jurisdictions that can change at any time, and changes in laws and regulations might require modifications to our technologies and operations and result in unanticipated capital expenditures.

Actual or potential political changes and changes in economic policy might undermine investor confidence, result in economic slowdowns and otherwise adversely affect the economic and other conditions under which we operate in ways which could have a material adverse affect on our business.

Protesters have taken actions to disrupt our operations and projects and they might continue to do so in future. Although we vigorously defend ourselves from illegal acts, while supporting the communities living near our operations, future attempts by protesters to harm our operations could adversely affect our business.

As the world's largest producer by volume of iron ore and iron ore pellets and a leading producer of nickel, manganese ore and ferroalloys, our Company's mergers and acquisitions activity, together with ordinary contractual arrangements for off-take of our commodities, could be subject to regulatory or anti-trust supervision in many jurisdictions. This could curtail our ability to execute our strategies, whether for acquisitive growth or exploiting our market position in the ordinary course.

We could be adversely affected by changes in government policies, including, but not limited to, the imposition of new taxes, charges or mining royalties.

Mining activities are subject to governmental regulation in the form of, among other obligations, taxes and royalties, which can have an important financial impact on our operations. In the countries which we operate, governments may impose taxes, raise existing taxes and royalties, or change the basis on which they are calculated, in a manner that is unfavourable to us. For details of the present position, please see Appendix VII to this Listing Document.

#### II. RISKS RELATING TO THE INTRODUCTION

An active trading market for the Depositary Receipts on the Stock Exchange might not develop or be sustained, their trading prices might fluctuate significantly and the effectiveness of the liquidity arrangements might be limited.

Following the completion of the Introduction, we cannot assure you that an active trading market for the Depositary Receipts on the Stock Exchange will develop or be sustained. If an active trading market of the Depositary Receipts on the Stock Exchange does not develop or is not sustained after the Introduction, the market price and liquidity of the Depositary Receipts could be materially and adversely affected. As a result, the market price for Depositary Receipts in Hong Kong following the completion of the Introduction might not be indicative of the trading prices of Common Shares and Class A Preferred Shares on BM&FBOVESPA or of the trading prices of ADRs on NYSE or NYSE Euronext Paris, even allowing for currency differences.

It is intended to implement liquidity arrangements (as set out in the section of this Listing Document headed "Listings, terms of Depositary Receipts and Depositary Agreements, registration, dealings and settlement — Liquidity arrangements"). Whilst such arrangements are expected to contribute towards liquidity to meet demand for Depositary Receipts (and therefore, avoid a disorderly market in the Depositary Receipts arising from excess demand for Depositary Receipts not fulfilled in Hong Kong upon and during the initial period following the Introduction), investors should be aware that such liquidity arrangements are subject to the ability to obtain sufficient numbers of Shares underlying Depositary Receipts to meet demand. There is no guarantee that such liquidity arrangements will attain and/or maintain liquidity in the Depositary Receipts at any particular level on the Stock Exchange, nor is there any assurance that the price of the Depositary Receipts in Hong Kong will not exhibit significant volatility.

The liquidity arrangements do not create any obligation to undertake any stock borrowing, trades or other transactions in the Depositary Receipts. Accordingly, there is no guarantee that during the Designated Period, the price at which the Depositary Receipts are traded on the Stock Exchange will reflect the price at which the Common Shares or Class A Preferred Shares are traded on BM&FBOVESPA or at which the ADRs are traded on NYSE or NYSE Euronext Paris, or that any particular volume of Depositary Receipts will trade on the Stock Exchange. The liquidity arrangements are not equivalent to price stabilisation activities which may be undertaken in connection with an initial public offering. The liquidity arrangements will also terminate and cease to continue beyond the Designated Period. Accordingly, there may be volatility in the Hong Kong market after the Designated Period.

Certain of the information and statistics set out in the section in this Listing Document headed "Industry overview" has been extracted from various official sources. No independent verification has been carried out on such information and statistics.

We believe that the sources of the information and statistics quoted by reference to those sources in the section in this Listing Document headed "Industry overview" are appropriate sources for such information and have taken reasonable care in extracting and reproducing such information. We have no reason to believe that such information is false or misleading. The

information, however, has not been independently verified by us, the Sponsor or any other party involved in the Introduction and no representation is given as to its accuracy.

#### III. RISKS RELATING TO OUR SECONDARY LISTING

The characteristics of the Brazilian and US capital markets and the Hong Kong capital markets are different.

BM&FBOVESPA, NYSE and the Stock Exchange have different trading hours, trading characteristics (including trading volume and liquidity), trading and listing rules, and investor bases (including different levels of retail and institutional participation). As a result of these differences, the trading prices of Common Shares and Class A Preferred Shares, and ADRs and Depositary Receipts representing them, might not be the same, even allowing for currency differences. Fluctuations in the price of Common Shares and Class A Preferred Shares due to circumstances peculiar to their local capital markets could materially and adversely affect the price of the Depositary Receipts, and vice versa. Because of the different characteristics of the Brazilian, US and Hong Kong equity markets, the historic market prices of Common Shares, Class A Preferred Shares and ADRs might not be indicative of the performance of our securities (including the Depositary Receipts) after the Introduction.

We are a Brazilian company principally governed by Brazilian laws and regulations.

We are primarily governed by Brazilian laws and are principally subject to the Corporations Act and CVM Rules. Brazilian laws and regulations differ in a number of respects from comparable laws and regulations in Hong Kong. Please see further details in the section in this Listing Document headed "Waivers". There are residual differences between the shareholder protection regimes in Brazil and Hong Kong. For further details, please see Appendix V to this Listing Document.

We have obtained a ruling from the SFC that we will not be treated as a public company in Hong Kong for the purposes of the Takeovers Code and the Share Repurchases Code and hence, these codes will not apply to our Company. We have also obtained a partial exemption from the SFC in respect of the disclosure of interest provisions set out in the SFO. In addition, we have applied for, and been granted, waivers or exemptions by the Stock Exchange from certain requirements under the Listing Rules. Neither our Shareholders nor the HDR Holders will have the benefit of those Hong Kong rules, regulations and Listing Rules for which we have applied, and been granted, waivers or exemptions by the Stock Exchange and SFC.

Additionally, if any of these waivers or exemptions were to be revoked in circumstances including our non-compliance with applicable undertakings for any reason, additional legal and compliance obligations might be costly and time consuming, and might result in issues of interjurisdictional compliance, which could adversely affect us and HDR Holders.

As the SFC does not have extra-territorial jurisdiction on any of its powers of investigation and enforcement, it will also have to rely on the regulatory regimes of CVM and SEC to enforce any corporate governance breaches committed by us in Brazil or the US. Investors should be aware that it could be difficult to enforce any judgment obtained outside Brazil against us or any of our associates.

# IV. RISKS RELATING TO OUR COMPANY

Our controlling shareholder (as defined in the Listing Rules) has control over some actions of our Company and the Brazilian Government has certain veto rights in respect of our Company.

As at the Latest Practicable Date, Valepar was interested in approximately 52.7% of our total Common Shares in issue and 32.4% of our total issued share 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 the Valepar shareholders' agreement, please see the section in this Listing Document headed "Relationship with Valepar".

The Brazilian Government owns all of our 12 Golden Shares, granting it limited veto power over certain corporate actions. For a detailed description of the Brazilian Government's veto powers, see Appendix V to this Listing Document.

# The By-laws authorise the issue of Shares forming part of the authorised share capital of our Company by the Board without any additional Shareholders' approval.

As at the Latest Practicable Date, we had 3,256,724,482 Common Shares and 2,108,579,606 Class A Preferred Share in issue (including Shares in treasury). The By-laws authorise the issue of 343,275,518 Common Shares and 5,091,420,394 Class A Preferred Shares additional to those then in issue by the Board without any additional Shareholders' approval. Investors in Depositary Receipts should note the potential dilution to the rights attached to the Common Shares and/or Class A Preferred Shares underlying their Depositary Receipts if the Board should decide to issue any or all of the Shares comprised in the authorised share capital of our Company.

# Our governance and compliance processes might 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, might not prevent future breaches of law, accounting or governance standards. We might be subject to breaches of our Code of Ethical Conduct, business conduct protocols and instances of fraudulent behaviour 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 licences, concessions, authorisations and permits, and reputational harm.

# It could be difficult for investors to enforce any judgment obtained outside Brazil against us or any of our associates.

Our Company is a Brazilian incorporated company and the majority of our officers and the Directors are residents of Brazil. The vast majority of our assets and the assets of our officers and Directors, at any one time, are, and might continue to be, located in jurisdictions outside Hong Kong. As such, it might not be possible for the investors to effect service of process within Hong Kong on the Directors and officers who reside outside Hong Kong. In addition, foreign court orders will be enforceable in the courts of Brazil without a re-examination of the merits only if previously confirmed by the Brazilian Superior Court of Justice, which confirmation will only be granted if such judgment: (a) fulfils all formalities required for its enforceability under the laws of the country where it was issued; (b) was issued by a competent court (x) after due service of process on our Company or (y) after sufficient evidence of our Company's absence has been given, as required under applicable law; (c) is not subject to appeal; (d) was authenticated by a Brazilian consulate in the country in which it was issued and is accompanied by a sworn translation into the Portuguese language; (e) is for a payment of a sum certain; and (f) is not contrary to Brazilian national sovereignty, public policy or good morals. Therefore you might not be able to recover against us or our Directors and officers on judgments of Hong Kong courts predicated upon the laws of Hong Kong.

# The integration between our Company and those acquisition targets which are a key part of our Company's strategies might prove more difficult than anticipated.

We may not be able successfully to integrate our acquired businesses. We have grown our business in part through acquisitions, and some of our future growth could depend on acquisitions.

The integration process following the completion of any acquisition by the Company might prove more difficult than anticipated. In addition, if the focus on this process after acquisitions impacts upon the performance of the Group's existing businesses, the results and operations of the Group may be adversely affected. Integration of acquisition targets might take longer than expected and the costs associated with integration of acquisition targets might be higher than anticipated. Completed acquisitions could fail to achieve the increased revenues, costs savings or operational benefits that were anticipated at the time of their conception. Acquisitions could lead to the incurrence of substantial costs as a result of, for example, inconsistencies in standards, controls, procedures and policies between the Group and the acquisition target which could negatively affect our financial condition and results of operations. Management attention could be diverted from ordinary responsibilities to integration issues. The success of any acquisition could also be affected by external factors that are outside the control of the Group, such as competitors' responses to our acquisition strategy.

#### V. RISKS RELATING TO THE DEPOSITARY RECEIPTS

HDR Holders do not have the rights of Shareholders and must rely on the HDR Depositary to exercise on their behalf the rights of a Shareholder.

HDR Holders do not have the rights of Shareholders. They only have the contractual rights set forth for their benefit under the Depositary Agreements. HDR Holders are not permitted to vote at Shareholders' meetings, and they may only vote by providing instructions to the HDR Depositary. There is no guarantee that HDR Holders will receive voting materials in time to instruct the HDR Depositary to vote and it is possible that HDR Holders, or persons who hold their HDSs through brokers, dealers or other third parties, will not have the opportunity to exercise a right to vote, although our Company and the HDR Depositary will endeavour to make arrangements to ensure as far as practicable that all HDR Holders will be able to vote. As the HDR Depositary or its nominee will be the registered owner of the Common Shares and Class A Preferred Shares underlying their Depositary Receipts, HDR Holders must rely on the HDR Depositary (or its nominee) to exercise the rights of a Shareholder on their behalf. In addition, HDR Holders will also incur charges on any cash distribution made pursuant to the Depositary Agreements and on transfers of certificated or direct registration Depositary Receipts. For further details, see the section in this Listing Document headed "Listings, terms of Depositary Receipts and Depositary Agreements, registration, dealings and settlement — Fees and Expenses."

HDR Holders will experience dilution in their indirect interest in our Company in the event of a private offering which is not extended to them.

If at any time after the listing of the Depositary Receipts on the Stock Exchange, our Company decides to undertake a private offering (being similar to a rights issue in Hong Kong), it may, based on an assessment of the complexity of the compliance requirements which are applicable in Hong Kong, the time and costs likely to be involved in meeting those requirements, the number of HDR Holders involved and the size of their holdings, decide not to extend the offer of the rights entitlements to the HDR Holders through the HDR Depositary, in which case the HDR Depositary will, if the sale of the rights entitlements is practicable, sell them on BM&FBOVESPA and distribute to the HDR Holders the cash proceeds realised from the sale, or if the sale is not practicable for any reason, such rights entitlements will lapse. In such case, the HDR Holders will suffer a dilution in their indirect ownership and voting interest in the Common Shares or Class A Preferred Shares, as the case may be, as represented by their holding of the Common Depositary Receipts or Class A Preferred Depositary Receipts immediately following the private offering. Even if the HDR Holders receive the cash proceeds realised from the sale of the rights entitlements by the HDR Depositary where such sale is practicable, the proceeds they receive may not be sufficient to compensate them fully for the dilution of their indirect percentage ownership of our Company that may be caused as a result of the private offering.

If HDR Holders exchange Depositary Receipts for Common Shares or Class A Preferred Shares, they may not be able to remit foreign currency from Brazil.

The Custodian will maintain a registration with the Central Bank of Brazil entitling it to remit only U.S. Dollars outside Brazil for payments of dividends and other distributions relating to the Common HDSs or Class A Preferred HDSs or upon the disposition of the underlying Common Shares or Class A Preferred Shares. If a HDR Holder exchanges its Depositary Receipts for the underlying Shares, it will be entitled to rely on the Custodian's registration for U.S. Dollars for only five Brazilian business days from the date of exchange. Thereafter, a HDR Holder may not be able to obtain and remit foreign currency abroad upon the disposition of, or distributions relating to, the underlying Shares unless it obtains its own registration under Resolution No. 2,689 of the Brazilian National Monetary Council, which permits qualifying institutional foreign investors to buy and sell securities on BM&FBOVESPA. If a HDR Holder attempts to obtain its own registration, it might incur expenses or suffer delays in the application process, which could delay the receipt of dividends or other distributions relating to the underlying Common Shares and Class A Preferred Shares or the return of capital in a timely manner.

We cannot assure HDR Holders that the Custodian's registration, or any other registration, will not be affected by future legislative changes, or that additional restrictions applicable to HDR Holders, the disposition of the underlying Common Shares or Class A Preferred Shares, or the repatriation of the proceeds from disposition, will not be imposed in the future.

HDR Holders will be reliant upon the performance of several service providers. Any breach of those service providers of their contractual obligations could have adverse consequences for an investment in Depositary Receipts.

An investment in Depositary Receipts will depend for its continuing viability on the performance of several service providers, including but not limited to the HDR Depositary, the HDR Registrar, the Custodian and any sub-custodian appointed in respect of the underlying Shares. A failure by any of those service providers to meet their contractual obligations, whether or not by culpable default, could detract from the continuing viability of the Depositary Receipts as an investment. The Company will not have direct contractual recourse against the Custodian, any subcustodian or the HDR Registrar, hence the potential for redress in circumstances of default will be limited. However, our Company and the HDR Depositary have executed the Deeds Poll in favour of HDR Holders in relation to the exercise by them of their rights as HDR Holders under the Depositary Agreements against our Company or the HDR Depositary. For further details, see the section in this Listing Document headed "Listings, terms of Depositary Receipts and Depositary Agreements, registration, dealings and settlement — The rights accrued to the HDR Holders pursuant to the Deeds Poll."

Withdrawals and exchanges of Depositary Receipts into Common Shares or Class A Preferred Shares traded on BM&FBOVESPA or exchanges of Common Shares and Class A Preferred Shares into ADRs traded on NYSE or NYSE Euronext Paris might adversely affect the liquidity of the Depositary Receipts.

The Common Shares and Class A Preferred Shares are presently traded on BM&FBOVESPA and LATIBEX. In addition, the ADRs are presently traded on NYSE and NYSE Euronext Paris. Any HDR Holder may at any time request that the Depositary Receipts it holds be withdrawn and exchanged into Common Shares or Class A Preferred Shares for trading on BM&FBOVESPA and such Common Shares or Class A Preferred Shares can be further exchanged into ADRs for trading on NYSE or NYSE Euronext Paris. Upon the exchange of Depositary Receipts into Common Shares and Class A Preferred Shares or ADRs, the relevant Depositary Receipts will be cancelled. For further details on the procedures for the withdrawal of Depositary Receipts, please see the section in this Listing Document headed "Listings, terms of Depositary Receipts and Depositary Agreements, registration, dealings and settlement — Deposit, withdrawal and cancellation". In the event that a substantial

number of Depositary Receipts are withdrawn and exchanged into Common Shares or Class A Preferred Shares or further exchanged into ADRs and subsequently cancelled, the liquidity of the Depositary Receipts on the Stock Exchange might be adversely affected.

The time required for Depositary Receipts to be exchanged into Common Shares or Class A Preferred Shares (and vice versa) or for exchange of Common Shares or Class A Preferred Shares into ADRs (and vice versa) might be longer than expected and investors might not be able to settle or effect any sales of their securities during this period.

There is no direct trading or settlement among the various stock exchanges on which the Common Shares and Class A Preferred Shares, the Depositary Receipts and ADRs are traded. In addition, there are time differences between Brazil, France, Hong Kong, Spain and New York. There might be unforeseen market circumstances or other factors which delay the exchange of Depositary Receipts into Common Shares or Class A Preferred Shares (and vice versa) and the exchange of Common Shares or Class A Preferred Shares into ADRs (and vice versa) and investors will be prevented from settling or effecting the sale of their securities across the various stock exchanges during such periods of delay. In addition, there is no assurance that any exchange of Depositary Receipts into Common Shares or Class A Preferred Shares (and vice versa) and any exchange of Common Shares or Class A Preferred Shares into ADRs (and vice versa) will be completed in accordance with the timelines investors might anticipate.

#### Investors are subject to exchange rate risk between Reais, Hong Kong Dollars and U.S. Dollars.

The value of an investment in the Depositary Receipts quoted in Hong Kong Dollars and the value of dividend payments in respect of the Depositary Receipts could be affected by fluctuations in the Real/Hong Kong Dollar, the Real/U.S. Dollar and the U.S. Dollar/Hong Kong Dollar exchange rates. For details of historic fluctuations in exchange rates, see the section in this Listing Document headed "Industry overview — Exchange rate fluctuations."

#### PRESENTATION OF FINANCIAL INFORMATION

The consolidated financial statements included in Appendix I to this Listing Document were prepared in accordance with US GAAP, which differ in certain respects both from the accounting practices adopted in Brazil (Brazilian GAAP), which are the basis for our statutory financial statements, and from both HKFRS and IFRS.

These financial statements reflect the retrospective adoption of the Noncontrolling Interests in Consolidated Financial Statements Standard, from 2007 and the oldest comparative period presented. The noncontrolling interest standard, which clarifies that a noncontrolling interest in a subsidiary is an ownership interest in the consolidated entity that should be reported as equity in the consolidated financial statements, as shown in the consolidated statements of changes in stockholders' equity and consolidated statements of comprehensive income (deficit). Noncontrolling interests that could be redeemed upon the occurrence of certain events outside our Company's control have been classified as redeemable noncontrolling interest using the mezzanine presentation on the balance sheet between liabilities and stockholders' equity, retroactively to all periods presented.

Since December 2007, significant modifications have been made to Brazilian GAAP as part of a convergence project with IFRS and as from the financial statements for the year to 31 December 2010 the convergence will be completed and therefore IFRS will be the accounting practice adopted in Brazil. Our Company does not expect to discontinue US GAAP reporting during 2010.

The Brazilian Real is our Company's functional currency. We have selected the U.S. Dollar as our reporting currency.

All assets and liabilities have been translated to U.S. Dollars at the closing rate of exchange at each balance sheet date (or, if unavailable, the first available exchange rate). All statement of income accounts have been translated to U.S. Dollars at the average exchange rates prevailing during the respective periods. Capital accounts are recorded at historical exchange rates. Translation gains and losses are recorded in the Cumulative Translation Adjustments account (CTA) in stockholders' equity.

The results of operations and financial position of our entities that have a functional currency other than the U.S. Dollar have been translated into U.S. Dollars and adjustments to translate those statements into U.S. Dollars are recorded in the CTA in stockholders' equity.

The exchange rates used to translate the assets and liabilities of the Brazilian operations at: 30 June 2010; 31 December 2009; 31 December 2008; and 31 December 2007 were: R\$1.8015; R\$1.7412; R\$2.3370; and R\$1.7713 respectively.

The net transaction gain (loss) included in our statement of income (Foreign exchange and indexation gains (losses), net) was: US\$3 million; US\$665 million; US\$(1,011 million); and US\$1,639 million in the financial periods ended: 30 June 2010; 31 December 2009; 31 December 2008; and 31 December 2007, respectively.

#### INFORMATION ABOUT THIS LISTING DOCUMENT AND THE INTRODUCTION

#### DIRECTORS' RESPONSIBILITY FOR THE CONTENTS OF THIS LISTING DOCUMENT

This Listing Document, for which the Directors collectively and individually accept full responsibility, includes particulars given in compliance with the Securities and Futures (Stock Market Listing) Rules and the Listing Rules for the purpose of giving information with regard to our Company. The Directors, having made all reasonable enquiries, confirm that to the best of their knowledge and belief the information contained in this Listing Document is accurate and complete in all material respects and not misleading or deceptive, and there are no other matters the omission of which would make any statement herein or this Listing Document misleading.

This Listing Document is published solely in connection with the Introduction. It may not be used for any other purpose and, in particular, no person is authorised to use or reproduce this Listing Document or any part thereof in connection with any offering of shares or other securities of our Company. Accordingly, there is no, and will not be any, public offer, solicitation, or invitation by or on behalf of our Company and/or the Sponsor to subscribe for or purchase, any of the Shares, the ADRs or the Depositary Receipts in conjunction with the Introduction. Neither this Listing Document nor any other document or information (or any part thereof) delivered or supplied under or in relation to the Introduction may be used for the purpose of, and the delivery, distribution and availability of this Listing Document or such other document or information (or any part thereof) does not constitute, any public offer, solicitation or invitation by or on behalf of our Company and/or the Sponsor, to subscribe for or purchase any of the Shares, the ADRs or the Depositary Receipts.

Our Company has not authorised anyone to provide any information or to make any representation not contained in this Listing Document. You should not rely on any information or representation not contained in this Listing Document as having been authorised by our Company or the Sponsor or any of their respective directors or any other person involved in the Introduction.

#### **NO CHANGE IN BUSINESS**

No change in the business of our Group is contemplated immediately following the Introduction.

#### APPLICATION FOR SECONDARY LISTING ON THE STOCK EXCHANGE BY WAY OF INTRODUCTION

The Common Shares and Class A Preferred Shares are presently listed on BM&FBOVESPA in São Paulo, Brazil and traded on LATIBEX of the Madrid Stock Exchange. 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.

The Common Shares and Class A Preferred Shares in the form of ADRs are also presently listed on NYSE and traded on NYSE Euronext Paris.

Application has been made to the Listing Committee for granting the admission to secondary listing on the Main Board of the Stock Exchange of, and permission to deal in, the Depositary Receipts by way of introduction. The Depositary Receipts are divided into the Common Depositary Receipts and the Class A Preferred Depositary Receipts, representing the Common Shares and the Class A Preferred Shares, respectively, in the ratio of one Common Depositary Receipt to one Common Share and one Class A Preferred Depositary Receipt to one Class A Preferred Depositary Share. Subject to admission to secondary listing being granted by the Listing Committee, the Depositary Receipts will be listed and traded on the Main Board of the Stock Exchange but not on any other stock exchanges. Except in the form of the Depositary Receipts, none of the Shares or ADRs of our Company will be listed and traded on the Stock Exchange.

The grant of the admission to secondary listing on the Main Board of the Stock Exchange of, and permission to deal in, the Depositary Receipts will be conditional on us maintaining the primary listing of our Shares on BM&FBOVESPA and the listing of our ADRs on NYSE.

#### INFORMATION ABOUT THIS LISTING DOCUMENT AND THE INTRODUCTION

#### REASONS FOR LISTING DEPOSITARY RECEIPTS

We have decided upon a listing by way of Depositary Receipts because of the registration requirements and other limitations that could affect foreign holders of Common Shares and Class A Preferred Shares described in Appendix V to this Listing Document, specifically under the heading "Exchange control, registration requirements and other limitations affecting security holders".

#### INFORMATION ON THE INTRODUCTION

The Introduction does not involve any offering of new Shares or a public offering of any other securities and no new proceeds will be raised pursuant to the Introduction.

In connection with the Introduction, our Company has entered into the Sponsor Agreement with the Sponsor. The Sponsor Agreement is subject to the fulfillment of certain conditions, including the grant by the Stock Exchange of the listing of and permission to deal in the HDRs not later than 9 December 2010 or such later date as we and the Sponsor may agree and such listing and permission not subsequently having been revoked prior to the commencement of dealings in the HDRs on the Stock Exchange. If those conditions are not fulfilled, the Sponsor Agreement will terminate. In addition, under the Sponsor Agreement, either our Company or the Sponsor may terminate the Sponsor Agreement at any time before 8:00 a.m. on the date on which trading in the HDRs is to commence on the Stock Exchange, if the other party has committed a material breach of the Sponsor Agreement. If the Sponsor Agreement is so terminated, the Introduction will not proceed.

#### REGISTER OF MEMBERS AND OF HDR HOLDERS

Our Company's principal register of members will be maintained in Brazil by Banco Bradesco S.A., our share registrar in Brazil. A register of HDR Holders in Hong Kong will be maintained by Computershare Hong Kong Investor Services Limited, our registrar in Hong Kong.

#### PROFESSIONAL TAX ADVICE RECOMMENDED

Dealings in the Depositary Receipts registered on the register of HDR Holders in Hong Kong will be subject to Hong Kong stamp duty. Hong Kong stamp duty will be payable by the purchaser on a purchase, and by the seller on a sale, of the Depositary Receipts registered on the register of HDR Holders in Hong Kong. The duty is charged at the ad valorem rate of 0.1% of the consideration for, or (if greater) the value of, the Depositary Receipts transferred on each sale and purchase. In other words, a total of 0.2% of stamp duty is normally payable on a sale and purchase of the Depositary Receipts. In addition, any instrument of transfer (if required) will be subject to a flat rate of stamp duty of HK\$5.

Potential HDR Holders are recommended to consult their professional advisers if they are in any doubt as to the taxation implications of holding, and dealing in, the Depositary Receipts. It is emphasised that none of the Group, the Sponsor, any of their respective directors, executive and other officers, employees, agents or advisers or any other person involved in the Introduction accepts responsibility for any tax effects or liabilities of HDR Holders resulting from the purchase, holding or disposal of Depositary Receipts.

#### DEPOSITARY RECEIPTS WILL BE ELIGIBLE FOR ADMISSION INTO CCASS

Subject to the granting of secondary listing of, and permission to deal in, the Depositary Receipts on the Stock Exchange and our Company's compliance with the admission requirements of HKSCC, the Depositary Receipts will be accepted as eligible securities by HKSCC for deposit, clearance and settlement in CCASS with effect from the date of commencement of dealings in the Depositary Receipts on the Stock Exchange or any other date as HKSCC chooses. Settlement of transactions between participants of the Stock Exchange is required to take place in CCASS on the

### INFORMATION ABOUT THIS LISTING DOCUMENT AND THE INTRODUCTION

second Business Day after any trading day. All activities under CCASS are subject to the CCASS Rules. All necessary arrangements have been made for the Depositary Receipts to be admitted into CCASS.

### COMMENCEMENT OF DEALINGS IN THE DEPOSITARY RECEIPTS

Dealings in the Depositary Receipts on the Stock Exchange are expected to commence at 9.30 a.m. on 8 December 2010, Hong Kong local time. The Common Depositary Receipts and the Class A Preferred Depositary Receipts will be respectively traded in board lots of 50 each. The HDRs will be quoted and traded on the Main Board of the Stock Exchange in HK Dollars.

# DIRECTORS, EXECUTIVE OFFICERS AND PARTIES INVOLVED IN THE INTRODUCTION

# **DIRECTORS**

Name	Business address in Brazil (unless stated)	<u>Nationality</u>
Ricardo José da Costa Flores (Chairman of the Board)	Praia de Botafogo nº 501, 4º andar, Rio de Janeiro, RJ	Brazilian
Mário da Silveira Teixeira Júnior (Vice- chairman of the Board)	Cidade de Deus, Prédio Novo, 4º andar, Vila Yara, Osasco, SP	Brazilian
José Ricardo Sasseron	Praia de Botafogo nº 501, 4º andar, Rio de Janeiro, RJ	Brazilian
Jorge Luiz Pacheco	Praia de Botafogo nº 501, 4º andar, Rio de Janeiro, RJ	Brazilian
Sandro Kohler Marcondes	Setor Bancário Sul, Q. 01, Bloco C, Lote 32, Ed. Sede III, 6° andar, Asa Sul, Brasília, DF	Brazilian
Renato da Cruz Gomes	Avenida Paulista nº 1.450, 9º andar, São Paulo, SP	Brazilian
Ken Abe	2-1, Ohtemachi 1-Chome, Chiyoda-Ku, Tokyo 100-0004, Japan	Japanese
Oscar Augusto de Camargo Filho	Avenida das Américas nº 700, bloco 6, sala 330, Cittá America, Rio de Janeiro, RJ	Brazilian
Luciano Galvão Coutinho	Avenida República do Chile nº 100, 22º andar, Rio de Janeiro, RJ	Brazilian
José Mauro Mettrau Carneiro da Cunha	Praia de Botafogo nº 300, 11º andar, Rio de Janeiro, RJ	Brazilian
Eduardo Fernando Jardim Pinto	Rua 03, Quadra B, Casa 3, Conjunto dos Ipês, Bairro Recanto dos Vinhais, São Luís, MA	Brazilian

# **EXECUTIVE OFFICERS**

Name	Titles
Roger Agnelli	
Eduardo de Salles Bartolomeo	Executive Officer responsible for Integrated Operations
Eduardo Jorge Ledsham	Executive Officer responsible for Exploration, Energy and Projects
José Carlos Martins	Executive Officer responsible for Marketing, Sales and Strategy
Mário Alves Barbosa Neto	Executive Officer responsible for Fertilizers Executive Officer responsible for Basic Metals Operations

Each of the Executive Officers' business address in Brazil is Avenida Graça Aranha, No. 26, 20030-900, Rio de Janeiro, RJ, Brazil.

# DIRECTORS, EXECUTIVE OFFICERS AND PARTIES INVOLVED IN THE INTRODUCTION

#### FISCAL COUNCIL MEMBERS

Business address in Brazil

Rua Getúlio das Neves nº 25, apto. 204, Rio de

Janeiro, RJ

Praia de Botafogo nº 501, 4º andar, Rio de Janeiro, Antonio José de Figueiredo Ferreira . . . . .

RJ

Marcelo Amaral Moraes (Chairman) . . . . Avenida Paulista nº 1.450, 9º andar, São Paulo, SP 

Esplanada dos Ministérios, Bloco P. 4º andar, Brasília.

#### PARTIES INVOLVED IN THE INTRODUCTION

J.P. Morgan Securities (Asia Pacific) Limited **Sponsor** 

> 28/F Chater House 8 Connaught Road

Central Hong Kong

JPMorgan Chase Bank, N.A. **HDR Depositary** 

**Depositary Receipts Group** 

1 Chase Manhattan Plaza, Floor 58

New York, NY, 10005-1401

**United States** 

Hong Kong representative office

20/F Chater House 8 Connaught Road

Central Hong Kong

Legal advisers to our Company as to Hong Kong law:

> Norton Rose Hong Kong 38/F Jardine House

1 Connaught Place

Central Hong Kong

as to Brazilian law:

Mattos Filho, Veiga Filho, Marrey Jr e Quiroga

Advogados

Av. Presidente Wilson 231, cj 403/404

Rio de Janeiro - RJ 20030 021

Brazil

as to US and French law:

Cleary Gottlieb Steen & Hamilton LLP

One Liberty Plaza New York, NY 10006

**United States** 

### DIRECTORS, EXECUTIVE OFFICERS AND PARTIES INVOLVED IN THE INTRODUCTION

Legal advisers to the Sponsor and to the HDR Depositary

as to Hong Kong and US law:

Paul, Hastings, Janofsky & Walker

22/F Bank of China Tower

1 Garden Road

Central Hong Kong

as to Brazilian law:

Machado, Meyer, Sendacz e Opice Advogados Avenida Brigadeiro Faria Lima 3.144 - 11 andar

São Paulo Brazil

**Auditors and reporting accountants** 

PricewaterhouseCoopers Auditores Independentes

Rua da Candelária 65 11th to 16th andar

20091-020 Rio de Janeiro RJ

Brazil

**Competent Persons** 

Pincock, Allen & Holt, Brasil Rua Tomé de Souza 860, #1601 Funcionários, CEP 30140-131

Belo Horizonte Minas Gerais

Brazil

Golder Associates Ltd. 2390 Argentia Road

Mississauga Ontario L5N 5Z7

Canada

Golder Associates Africa (Pty) Ltd.

Thandanani Park Matuka Close Midrand South Africa

#### **CORPORATE INFORMATION**

Registered office Avenida Graça Aranha

No. 26, 20030-900 Rio de Janeiro RJ

Brazil

Headquarter and principal place of business in

**Brazil** 

Avenida Graça Aranha

No. 26, 20030-900 Rio de Janeiro RJ

Brazil

Principal place of business in Hong Kong 7/F., Hong Kong Trade Centre

161-167 Des Voeux Road

Central Hong Kong

Website<sup>(1)</sup> http://www.vale.com

Company secretary and authorised

representative

Yu Leung Fai <sub>HKICPA AICPA CPA(Aust.)</sub> 7/F., Hong Kong Trade Centre 161-167 Des Voeux Road

Central Hong Kong

**Executive Development Committee**João Moisés de Oliveira

José Ricardo Sasseron

Oscar Augusto de Camargo Filho

Strategy Committee Roger Agnelli

Luciano Galvão Coutinho

Mário da Silveira Teixeira Júnior Oscar Augusto de Camargo Filho Ricardo José da Costa Flores

Finance Committee Guilherme Perboyre Cavalcanti

Luiz Maurício Leuzinger Ricardo Ferraz Torres Wanderlei Viçoso Fagundes

Accounting Committee Luiz Carlos de Freitas

Paulo Ricardo Ultra Soares

Paulo Roberto Ferreira de Medeiros

Governance and Sustainability Committee Jorge Luiz Pacheco

Renato da Cruz Gomes Ricardo Simonsen

Brazilian share registrar and transfer agent Banco Bradesco S.A.,

Cidade de Deus

Vila Yara 06029-900 Osasco SP Brazil

<sup>(1)</sup> The information in the Company's website does not form part of this Listing Document.

#### **CORPORATE INFORMATION**

HDR Registrar Computershare Hong Kong Investor Services

Limited

46/F, Hopewell Centre, 183 Queen's Road East

Wan Chai Hong Kong

Principal bankers BB Securities

16 St. Martin's le Grand London EC1A 4NA United Kingdom

BNP Paribas 10 Harewood Avenue London NW1 6AA United Kingdom

Banco Bradesco BBI S.A. Av Paulista, 1450 8° andar São Paulo/SP Brazil

Crédit Agricole Corporate and Investment Bank 9 Quai du Président Paul Doumer 92920 Paris La Défense France

Citigroup Global Markets, Inc. 388 Greenwich St., 5th Floor New York, NY 10013 United States

Credit Suisse Securities (USA) LLC 11 Madison Avenue New York, NY 10010 United States

HSBC Bank plc Level 3 8 Canada Square London E14 5HQ United Kingdom

J.P. Morgan Securities LLC 383 Madison Avenue, 9<sup>th</sup> Floor New York, NY 10017 United States

# **CORPORATE INFORMATION**

Banco Santander, S.A.

Santander Global Banking & Markets

Ciudad Grupo Santander

Edificio Encinar Avenida de Cantabria 28660, Boadilla del Monte

Madrid Spain

**Compliance adviser** 

J.P. Morgan Securities (Asia Pacific) Limited

28/F Chater House 8 Connaught Road

Central Hong Kong

We have applied for, and the Stock Exchange and/or the SFC has granted the following material waivers and exemptions.

#### WAIVERS FROM THE REQUIREMENTS OF THE LISTING RULES

#### Qualifications for listing

#### Appointment of independent non-executive directors

Rule 3.10 of the Listing Rules requires a listed company to appoint at least three independent non-executive directors. There is no equivalent concept of non-executive directors under Brazilian law. We are not subject to (or have been exempted from) any requirement to appoint independent directors, whether under Brazilian law or any of the rules and regulations of the stock exchanges on which our Shares or ADRs are listed or traded.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rule 3.10 of the Listing Rules on condition that we will undertake to procure the Fiscal Council to assume and perform all the duties and obligations required to be performed by independent non-executive directors under the Listing Rules (other than those described below).

The By-laws provide that the Fiscal Council is to be made up of three to five members. Please refer to the section in this Listing Document headed "Share capital — Voting rights" for details of the rights of holders of our Common Shares and Preferred Shares to vote on the election and removal of members of the Fiscal Council. Valepar, our controlling shareholder (as defined in the Listing Rules), has undertaken to the Stock Exchange that it will, insofar as it is able to do so by virtue of its shareholding in our Company from time to time, procure that the Fiscal Council will comprise at least three members who satisfy the independence requirements applicable to independent non-executive directors under Rule 3.13 of the Listing Rules and at least one of them will have appropriate professional qualifications or accounting or related financial management expertise as required of independent non-executive directors under Rule 3.10(2) of the Listing Rules.

We have also applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement under Rule 3.13 of the Listing Rules to confirm in each of our annual reports whether we have received the annual confirmation of independence from each of the independent members of the Fiscal Council and whether we still consider such independent member to be independent on condition that we will provide such confirmation, in the management proposal to be published together with the notice of our annual general meeting, with respect to each of the independent members of the Fiscal Council to be re-elected at such annual general meeting. Valepar has also undertaken to the Stock Exchange that it will, insofar as it is able to do so by virtue of its shareholding in our Company from time to time, procure each independent member of the Fiscal Council to notify our Company as soon as practicable if there is any subsequent change of circumstances which may affect his independence during the term of his appointment as a member of the Fiscal Council. Our Company will inform the Stock Exchange accordingly as soon as practicable if treceives any such notification.

#### Audit committee

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement under Rule 3.21 of the Listing Rules to establish an audit committee comprising non-executive directors only, with the majority of its members being independent non-executive directors and at least one of whom having appropriate professional qualifications or accounting or related financial management experience, on the basis that we will undertake to procure the Fiscal Council to perform the role of the audit committee under the Listing Rules. Valepar has undertaken to the Stock Exchange that it will, insofar as it is able to do so by virtue of its shareholding in our Company from time to time, procure that the Fiscal Council will be chaired by a member who satisfies the independence requirements under Rule 3.13 of the Listing Rules.

In performing the role of the audit committee, however, the Fiscal Council will not approve the remuneration or terms of engagement of the external auditor, or any questions of its resignation or dismissal as suggested in paragraph C.3.3(a) of Appendix 14, but will only make recommendations to the Board of Directors with respect to those matters, since it does not have the authority under Brazilian law to approve any of those matters. As an alternative, our Company has undertaken to the Stock Exchange to procure the Fiscal Council to review and evaluate the performance of our Company's external auditors on an annual basis and make a recommendation to the Board of Directors on whether our Company should remove its existing external auditors and appoint new external auditors. If the Board of Directors disagrees with the Fiscal Council's view on the selection, appointment, resignation or dismissal of the external auditors, we will include (a) the relevant opinion from the Fiscal Council; and (b) the reason(s) the Board of Directors has taken a different view, in the overseas regulatory announcement that we will issue in Hong Kong when we publish our annual report on Form 20-F filed with SEC.

#### Remuneration committee

The Fiscal Council will not perform the role of the remuneration committee under Appendix 14 to the Listing Rules. Instead, our executive development committee will perform this role. The current members of our executive development committee are all Directors. We will not reconstitute the executive development committee such that a majority of its members would meet the requirements for independence under Rule 3.13 of the Listing Rules as suggested in paragraph B.1.1 of Appendix 14, as (a) there is a requirement under the Corporations Act that at each annual general meeting, the total amount of remuneration payable to our Directors, members of the Board of Executive Officers and the technical and advisory committees, and the total amount of remuneration payable to members of the Fiscal Council for the period up to the next annual general meeting have to be approved by our Shareholders: (b) details of the proposed allocation of the total remuneration among our Board of Directors, the Board of Executive Officers and the technical and advisory committees, and among the members of the Fiscal Council are required to be disclosed to our Shareholders prior to the annual general meeting at which the total remuneration is to be approved; (c) our Shareholders will be able to know from the mandatory disclosure in the Annual Disclosure Document and our annual report on Form 20-F of the aggregate remuneration paid to each of the Board of Directors, the Board of Executive Officers, the technical and advisory committees and the Fiscal Council in the preceding financial year whether the actual allocation determined by our Board of Directors has deviated from the proposed allocation previously disclosed; (d) our Board of Directors will exercise its discretion to determine how the total amount of remuneration approved by our Shareholders is to be divided and allocated among each of our Directors, the Executive Officers, members of the technical and advisory committees and members of the Fiscal Council in accordance with the Corporations Act and the remuneration policy and practices disclosed by our Company in the Annual Disclosure Document.

In performing the role of the remuneration committee, our executive development committee will, instead of approving the matters suggested to be approved by the remuneration committee in Appendix 14 (which include (i) specific remuneration packages of all Directors and senior management; (ii) performance-based renumeration; (iii) compensation payable to the Directors and senior management in connection with any loss or termination of their office, and (iv) compensation arrangements relating to dismissal or removal of the Directors for misconduct), make recommendations to our Board of Directors on those matters, and will only make recommendations in respect of the remuneration of the Executive Officers and other key employees (including the senior management) of our Company but not the remuneration of the Directors or members of the Fiscal Council as suggested in paragraph B.1.3 of Appendix 14. The duties of our executive development committee will also not be extended to include the function to ensure that no Director or any of his associates is involved in deciding his own remuneration. The reasons for the deviations are (a) the Corporations Act does not require any of the foregoing matters to be subject to the approval of our Shareholders, the Fiscal Council or any technical or advisory committee

including our executive development committee. They are required to be approved by the Board of Directors only; and (b) pursuant to the By-laws, our executive development committee does not make recommendation on the remuneration of the Directors or members of the Fiscal Council.

### Dealing in Shares prior to listing

According to Rule 9.09(b) of the Listing Rules, there must be no dealing in the securities for which listing is sought by any connected person of the issuer from four clear business days before the expected hearing date until listing is granted.

Our Common Shares and Class A Preferred Shares are currently listed on BM&FBOVESPA, NYSE (in the form of ADRs) and NYSE Euronext Paris (also in the form of ADRs). They are also traded on LATIBEX, which is a non-regulated electronic market created by the Madrid Stock Exchange for trading in the equity securities of companies in Latin America.

As at the Latest Practicable Date, so far as we are aware, Valepar was the only substantial shareholder of our Company within the meaning of the Listing Rules. Given that our Shares and ADRs are already publicly traded on BM&FBOVESPA, NYSE, NYSE Euronext Paris and LATIBEX, we are not in a position to control dealings in our Shares or ADRs by any other person (whether or not an existing Shareholder) or its associates who may, as a result of such dealing, become a substantial shareholder of our Company within the meaning of the Listing Rules.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rule 9.09(b) of the Listing Rules in respect of any dealing by any Shareholder (other than Valepar and the existing Directors and Executive Officers and their respective associates) from four clear business days before the date on which the hearing of the Listing Committee with respect to our Company's application for the secondary listing of the HDRs on the Stock Exchange is expected to take place until listing is granted, on condition that (a) we will promptly release any price-sensitive information to the public in accordance with all applicable laws, rules and regulations; (b) we will procure that none of Valepar, the Directors or Executive Officers or their respective associates will deal in our Shares or ADRs from four clear business days before such expected hearing date until listing is granted; and (c) we will notify the Stock Exchange if there is any dealing in the Shares or ADRs by Valepar, the Directors or Executive Officers or any of their respective associates during the relevant period.

### Content requirements for listing document

#### Accountants' report

Accounting standards and disclosure of specific financial information

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Rule 4.04(1), 4.05, 4.08, 4.09(1) and 4.10 of Chapter 4 of the Listing Rules to prepare an accountants' report in accordance with the Auditing Guideline — Prospectuses and the reporting accountant (Statement 3.340) and to disclose all the specified details concerning the financial information in the accountants' report, on the basis that we include our audited consolidated financial statements for the years ended 31 December 2007, 2008 and 2009 and the six months ended 30 June 2010 prepared in accordance with US GAAP in this Listing Document pursuant to Rule 19.39 of the Listing Rules. Our consolidated financial statements for the years ended 31 December 2007, 2008 and 2009 were audited by PricewaterhouseCoopers Auditores Independentes in accordance with the standards of the Public Company Accounting Oversight Board (United States) and our consolidated financial statements for the six months ended 30 June 2010 were audited by PricewaterhouseCoopers Auditores Independentes in accordance with International Standards on Auditing and the comparative condensed consolidated financial information of our Group for the six months ended 30 June 2009 was reviewed by PricewaterhouseCoopers Auditores

Independentes in accordance with the standards of the Public Company Accounting Oversight Board (United States).

Certain information which is required to be included in an accountants' report under Chapter 4 of the Listing Rules is not included in the audited financial statements of our Company set out in Appendix I to this Listing Document pursuant to the waiver. Such information includes:

- (a) company-only balance sheet and related note disclosures;
- (b) detailed list of current accounts with directors at year/ period end and the maximum amount outstanding during the year/ period;
- (c) analysis of directors' remuneration waived, if any, for each of the relevant years/ periods;
- (d) details of senior management (including directors') emoluments;
- (e) analysis of the five highest paid individuals' emoluments;
- (f) analysis of land held under freehold and leasehold, and lease terms for leasehold land;
- (g) analysis of investments in subsidiaries at cost;
- (h) analysis of the market values of investment in listed subsidiaries;
- (i) analysis of equity or debt securities, and the place where the relevant securities are traded;
- (j) detailed information of investments including the name of securities, place of incorporation, principal activities, particulars of issued shares held and interest held if the carrying amounts on an investment exceed 10% of the Group's total assets;
- (k) credit terms of the accounts receivable and payables; and
- (I) ageing analysis of year/period end accounts receivable and other receivables and accounts payables.

We have made the following alternative disclosures in the Listing Document with respect to the material items identified above which are relevant to the Group to provide additional information to investors:

- (i) disclosure of both the fixed and variable remuneration of each of the Board of Directors, the Board of Executive Officers and the Fiscal Council in Appendix VII to this Listing Document;
- (ii) disclosure of the land use rights with respect to the land occupied by members of the Group on which the Material Reserves are located in the section of this Listing Document headed "Business Mining concessions and other related rights";
- (iii) disclosure of the information on both our equity and debt securities, including their place of trading (where applicable), in the sections of this Listing Document headed "Information about this Listing Document and the Introduction" and "Financial information":
- (iv) disclosure of the names of our Company's affiliated companies and joint ventures entities, our Company's interests in those entities and their principal business operations in Appendix I to this Listing Document; and
- (v) disclosure of the credit policy and credit quality of the Group in the section of this Listing Document headed "Financial information".

#### Reporting accountants

We have also applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Rule 4.03 of the Listing Rules for the accountants' reports to be prepared by certified public accountants who are qualified under the Professional Accountants

Ordinance for appointment as auditors of a company and who are independent both of our Company and of any other company concerned to the same extent as that required of an auditor under the Companies Ordinance and in accordance with the requirements on independence issued by the Hong Kong Institute of Certified Public Accountants, PricewaterhouseCoopers Auditores Independentes, who audited our consolidated financial statements for the years ended 31 December 2007, 2008 and 2009 and the six months ended 30 June 2010 prepared in accordance with US GAAP, has been appointed by us as the sole reporting accountant in connection with the Introduction in order to avoid the unnecessary costs and delay in engaging other certified public accountants who are qualified under the Professional Accountants Ordinance as auditors to conduct an extensive review of our audited financial statements for the years ended 31 December 2007, 2008 and 2009. PricewaterhouseCoopers Auditores Independentes is an internationally recognised accounting firm and registered with the Public Company Accounting Oversight Board — PCAOB (USA). It has extensive experience in securities offerings on BM&FBOVESPA and NYSE. It is independent both of our Company and of any other company concerned as required under the independence rules of the Public Company Accounting Oversight Board established by the Sarbanes-Oxley Act. We have requested PricewaterhouseCoopers Hong Kong to assist PricewaterhouseCoopers Auditores Independentes in performing its duties as reporting accountant for the Introduction. PricewaterhouseCoopers Hong Kong has been advising and will continue to advise PricewaterhouseCoopers Auditores Independentes regarding the accounting-related requirements.

# Property valuation report

As of 30 September 2010, we owned more than 8,500 parcels of land and buildings. Most of the land is in remote areas where our mineral resources and production facilities are located, and the buildings and facilities constructed thereon are mainly purpose-built industrial facilities used for our Group's mining and exploration operations. The remainder of the land and buildings owned by us are mainly used in connection with our ports and railway operations. We do not have any leased land or buildings which are material to our business operations. The properties which are owned by us and are considered to be material to our operations are primarily parcels of land with respect to which the mining concessions for the Material Reserves (see below) have been granted to, and are owned by, us. We do not consider that the mining concessions with respect to those properties should be included in the valuation if those properties were to be valued in compliance with Chapter 5 of the Listing Rules. We do not consider that any of the properties held by any member of the Group under operating lease has any commercial value given that none of those properties may be freely disposed of or transferred. We believe that due to the specialised nature of the land and buildings, most of them will not have any significant commercial value or be subject to any significant fluctuation in their market value, and their net book value as stated in our unaudited consolidated financial statements for the nine months ended 30 September 2010 already provides a sufficient indication of their value.

On such basis and given that (a) our core business is not investment in properties; and (b) the net book value of the land and buildings owned by our Group accounted for only approximately 3.9% of our total assets as reflected in our unaudited consolidated financial statements for the nine months ended 30 September 2010, we have applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rule 5.01 and Paragraph 3(a) of Practice Note 16 of the Listing Rules in respect of the requirement to prepare valuation of all our interests in land and buildings on the ground that it would be unduly burdensome for us in terms of both time and costs.

Considering that the net book value of the land and buildings owned by the Group accounted for only approximately 3.9% of our total assets as at 30 September 2010 and our Company's view that these proprietary interests (owned or leased properties) would not have any significant commercial value, the Sponsor is also of the view that it would be unduly burdensome for our Company to comply with the requirements under Rule 5.01 and Paragraph 3(a) of Practice Note 16 of the Listing Rules.

#### Disclosure for mining companies in the listing document

Reports of competent persons on mineral reserves

As of 30 June 2010, we owned and operated more than 60 mining sites and projects in different locations worldwide. Approximately 44% of those mining sites and projects were iron ore mines, while others included manganese, nickel and by-products, bauxite, copper, potash, phosphate rock and coal. Given the significant number of mining sites and projects involved and the number of countries in which they are located, as well as the wide range of mineral products produced, it would be unduly burdensome for us to engage one or more competent persons to prepare a report on the reserves of each of the mining sites and projects owned by us.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement under Rule 18.05(1) of the Listing Rules to prepare a competent person's report in respect of the reserves of each of the mining sites and projects owned by us, on the basis that we will engage competent persons to prepare reports on the Material Reserves.

We have identified the following as the Material Reserves:

Mineral	Location	Mines/complexes
Iron ore	Brazil	
	Southeastern System	Itabira complex
		Minas Centrais complex
		Mariana complex Corumbá complex
	Southern System	Minas Itabiritos complex
	-	Vargem Grande complex
	N. d. C.	Paraopeba complex
	Northern System	Serra Norte complex Serra Sul
		Serra Leste
	Samarco	
Nickel	Canada	Sudbury
		Thompson
	Indonesia	Voisey's Bay Sulawesi
	New Caledonia	Vale New Caledonia (Goro)
	Brazil	Onça Puma
Copper	Brazil	Sossego
Coal	Mazambigua	Salobo
Coal	Mozambique	Moatize

The Material Reserves have been identified on the following bases:

- (a) we have identified iron ore, nickel, copper and coal as the four minerals which are material to our current business operations and/or our future development;
- (b) iron ore, nickel, copper and coal have been selected based on (i) their historical revenue contribution over the Track Record Period; (ii) their historical production volume over the Track Record Period; and/or (iii) their potential contribution to future revenue generated from the development of organic growth projects;
- (c) the Material Reserves selected by us include all of the iron ore, nickel and copper reserves owned by us; and
- (d) for coal, we have selected the Moatize reserves in Mozambique, which accounted for approximately 88% of our proven and probable reserves in coal as at the end of 2009.

# Disclosure of full text of Competent Persons' reports

Given the significant number of mining sites and projects involved even when confined to the Material Reserves, and the significant volume of the Material Reserves, the full text of each of the Competent Person's reports is of significant length. Inclusion of the full text of each of the Competent Person's reports in this Listing Document would make the document unduly long and cumbersome. We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement under Rule 18.05(1) of the Listing Rules to reproduce the full text of all the Competent Person's reports on the Material Reserves in this Listing Document on condition that we will (a) include the executive summary of each of those reports in this Listing Document; (b) publish the full text of all those reports on the Stock Exchange's website and our own website: (c) include in this Listing Document a reference to the Stock Exchange's website and our own website at which those reports may be found: (d) confirm in this Listing Document that all material information about the estimates of the Material Reserves has been disclosed in the executive summaries of those reports in this Listing Document; and (e) put the full text of all of the Competent Persons' reports on display and make them available for inspection together with all other documents required to be made available for inspection in accordance with paragraph 76 of Part E of Appendix 1 to the Listing Rules.

### Disclosure of cash operating costs

Rule 18.06 of the Listing Rules provides that an estimate of the operating cash cost per appropriate unit for the minerals produced must be disclosed in the listing document. We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement under Rule 18.06 on the basis that as we are a mature mining company and have begun production for most of our mineral reserves for a period of time, we consider the disclosure of the information on the production volume of the minerals we produced during the Track Record Period in this Listing Document, and the historical costs of ores and metals sold during such period in our audited financial statements already provides sufficient information to the investors to provide them with an understanding of the operating costs of our production.

# Reporting standard

The Competent Person's reports on the Material Reserves, other than those on our iron ore reserves, have been prepared in accordance with both Industry Guide 7 and one of the reporting standards prescribed by the Stock Exchange under Rule 18.29 of the Listing Rules. The Competent Person's reports on our iron ore reserves comprised in the Material Reserves have been prepared in accordance with Industry Guide 7 only.

Set out below is a summary of the main differences between the requirements under Industry Guide 7 and those of NI 43-101 (being one of the reporting standards prescribed by the Stock Exchange under Rule 18.29 of the Listing Rules):

	NI 43-101	Industry Guide 7
Study requirements	need preliminary feasibility study that shows mineral reserves are the economically mineable part of a measured or indicated mineral resource	not specified, but it is generally understood that SEC requires a "final" or "bankable" feasibility study showing that mineral reserves can be economically extracted
Permit requirements	reasonable expectation that government approvals will be provided	all necessary permits are in hand or will be issued imminently
Commodity pricing	no method provided for, but the accepted practice is to use the issuer's forward-looking prices	not specified, but SEC guidelines require reserve estimates to be based on average commodity price prevailing during the preceding three-year period
Disclosure of mineral		anno at diadaga mainanal
resources	can disclose "measured", "indicated" and "inferred" mineral resources which have reasonable prospects of economic extraction but have not yet been demonstrated to be economically mineable	cannot disclose mineral resources except required to do so by foreign or state law or in the context of an acquisition, in which event it must be called "mineralised material"
Qualified person	disclosure must be based on a technical report or other information prepared by or under the supervision of a "qualified person" — which is basically an engineer or geoscientist with at least 5 years' experience in the mineral industry and who is a member of an approved institution with an enforceable code of ethics	disclosure must be accompanied by the name of persons making the estimates and disclosure of their relationships to the company whose reserves are being reported on but does not contain a competent or qualified person requirement

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement under Rule 18.29 of the Listing Rules to report on the estimates of our iron ore reserves comprised in the Material Reserves in accordance with one of the reporting standards specified in that rule.

#### Reporting on mineral and petroleum resources

We have various mineral resources and a small quantity of petroleum resources. We do not consider that our mineral and petroleum resources are material to our current operations, in the light of our extensive portfolio of mineral reserves.

Industry Guide 7 prohibits disclosure of any estimates other than proven or probable reserves, unless such information is required to be disclosed by foreign or state law or has been provided to a non-affiliate that is offering to acquire the securities of the reporting company.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement under Rule 18.29 to prepare Competent Person's report on any of our mineral or

petroleum resources for inclusion in this Listing Document on the basis that we do not consider that our mineral and petroleum resources are material to our revenue generating capacity in the near future and hence, the non-disclosure of estimates of those resources would not constitute an omission of material information with respect to our operations.

#### Other content requirements

We have applied for, and the Stock Exchange has granted, waivers from strict compliance with paragraph 33(3), 41(1) and 45(1) and (2) of Appendix 1E to the Listing Rules to disclose the following information in this Listing Document:

- (a) information in respect of the five individuals whose emoluments were the highest in our Group for the year, on the basis that we disclose the aggregate remuneration of the Board of Executive Officers (which comprised the five highest paid individuals) for each of the three years ended 31 December 2007, 2008 and 2009 in this Listing Document;
- (b) certain details of our Directors, Executive Officers and members of the Fiscal Council, including (i) current and past directorships in other listed public companies in the last three years held by every Director, proposed Director, Executive Officer, proposed Executive Officer, member of the Fiscal Council or proposed member of the Fiscal Council; and (ii) details of each Director or proposed Director which are required to be disclosed in an announcement relating to his appointment pursuant to Rule 13.51(2)(c)(i), (e) (as to relationship with any Director, Executive Officer and member of the Fiscal Council only), (f), (g), (h) to (x) of the Listing Rules;
- (c) the interests and short positions of each Director and Executive Officer in the Shares, underlying Shares and debentures of our Company or any associated company, and the interests and short positions of any Shareholder (other than a Director or Executive Officer) in the Shares and underlying Shares which would fall to be disclosed to our Company under Divisions 2 and 3 of Part XV of the SFO, on the basis that we disclose (i) the aggregate interests of all the Directors, Executive Officers and members of the Fiscal Council and their respective Relevant Persons in the Securities of our Company (see definitions of Relevant Persons and Securities in Appendix V to this Listing Document) and in any of our Controlling Shareholders and subsidiaries; and (ii) the interests and short positions held by any Shareholder, other than the Directors, Executive Officers or members of the Fiscal Council, who holds 5% or more in the Securities of our Company, which are required to be disclosed by our Company pursuant to the CVM Rules.

We have also applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement under paragraph 76(2) in Appendix 1E to the Listing Rules to make available for inspection the material contracts entered into by any member of our Group within the two years immediately preceding the issue of this Listing Document which were not entered into in connection with the Introduction and which are disclosed in Appendix VIII to this Listing Document, on condition that the public announcements which had previously been issued by us in relation to those material contracts in accordance with the regulatory requirements of CVM, BM&FBOVESPA, SEC and NYSE are made available for inspection.

#### Post-listing compliance requirements

#### Corporate communications

Rule 2.07A of the Listing Rules provides that a listed issuer may send or otherwise make available to the relevant holders of its securities any corporate communication by electronic means, provided that either the listed issuer has previously received from each of the relevant holders of its securities an express, positive confirmation in writing or the shareholders of the listed issuer have resolved in general meeting that the listed issuer may send or supply corporate communications to

shareholders by making them available on the listed issuer's own website or the listed issuer's constitutional documents contain provision to that effect, and certain conditions are satisfied. Rule 2.07B provides that a listed issuer may, where it has made adequate arrangements to ascertain whether or not a holder of its securities wishes to receive the English version or the Chinese version of any corporate communication only, send the English version or the Chinese version only to the holder concerned. Any listed issuer availing itself of Rule 2.07A and 2.07B must afford holders of its securities the right at any time to change their choice as to whether they wish to receive corporate communications in printed form or using electronic means, or to receive the English version only, the Chinese version only or both the English and Chinese versions, as the case may be.

We do not currently produce or send out any corporate communications to our Shareholders (including financial statements, annual or quarterly reports and notice of shareholders' meetings) in printed form. In accordance with the Corporations Act and the regulatory requirements of CVM, BM&FBOVESPA and SEC, we are currently obliged to file all corporate communications to our Shareholders with CVM, SEC and BM&FBOVESPA as well as disclose them on the websites of CVM, BM&FBOVESPA and SEC. We also publish all corporate communications to our Shareholders on our own website.

As at 30 September 2010, we had more than 480,000 registered Shareholders with registered addresses in over 33 countries worldwide. Given our extensive shareholder base and the number of countries in which our Shareholders are located, it would not be practicable for us to send printed copies of corporate communications to all of our Shareholders. It would also not be practicable for us to approach our existing Shareholders individually to seek the confirmation of their intention to receive corporate communications in electronic form, or to provide them with the right to request for corporate communications in printed form instead.

With effect from the listing of the HDRs on the Stock Exchange, we will issue all future corporate communications on our own website in Portuguese, English and Chinese and on the Stock Exchange's website in English and Chinese. Those corporate communications will also be published on the websites of CVM, BM&FBOVESPA and SEC.

We currently provide our Shareholders with the option to request for electronic copies of our annual and quarterly reports as well as all the press releases and notices of Material Facts (please see definition in Appendix V to this Listing Document) to be sent to them by e-mail as soon as practicable after such reports, press releases or notices have been published. We will provide holders of our HDRs with the same option, pursuant to which any holder of our HDRs may request for electronic copies of our annual and quarterly reports, press releases and notices of Material Fact in English or Chinese to be sent to him by e-mail at an e-mail address to be provided by him to us as soon as practicable after such reports, press releases or notices have been published.

We will also publish a notice on the front page of our website whenever new corporate communications are issued notifying our Shareholders and ADR and HDR Holders.

On the basis of the above, we have applied for, and the Stock Exchange has granted, waivers from strict compliance with the requirements under Rule 2.07A and 2.07B.

# Disclosure of the names of directors in listing document, circular and announcement and directors' responsibility statement

Rule 2.14 provides that any listing document, circular or announcement issued by a listed issuer pursuant to the Listing Rules must disclose the name of each director as at the date of the relevant listing document, circular or announcement.

Under the CVM Rules, the investor relations officer of our Company has the primary responsibility of disclosing and notifying CVM and BM&FBOVESPA (and any other stock exchange on which our shares are listed) of any Material Fact that has occurred in relation to our Company or our business. The investor relations officer has the obligation to ensure the timely and complete

disclosure of such Material Fact to the market and is primarily responsible for any non-compliance. The investor relations officer is also required to take responsibility for the accuracy of the content of any announcement or circular issued by us and only his name will be stated in such announcement or circular.

Under the CVM Rules, however, the primary responsibility of the investor relations officer of our Company for the issue and accuracy of the content of any announcement or circular to be issued by us does not absolve our Directors or Executive Officers from any such responsibility towards CVM. CVM Rules require, among others, Directors who acquire knowledge of a Material Fact to inform the investor relations officer, who must then proceed to disclose immediately the information to the market. If any Director becomes aware of a Material Fact which has not been immediately, adequately, correctly or completely disclosed to the market by the investor relations officer, he must request the investor relations officer to make immediate, adequate, correct or complete disclosure. If the investor relations officer fails to do so, the Director must inform CVM promptly. Any Director or the investor relations officer who is found to be in breach of the above requirements may face sanctions imposed by CVM which may vary from formal warnings, fines, a ban for up to 20 years on any activity in the securities market and disqualification from acting as managers of listed companies. Shareholders and investors who have suffered losses directly as a result of a breach by the investor relations officer or any Director of his disclosure obligations may also file a complaint with CVM or bring a civil action against such Director or the investor relations officer.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the following requirements:

- (a) the requirement under Rule 2.14 of the Listing Rules to disclose the names of the Directors in any announcement or circular to be issued by us pursuant to the Listing Rules. We will comply with the requirement to disclose the names of our Directors in any listing document to be issued by us pursuant to the Listing Rules; and
- (b) the requirement to include a responsibility statement to be given by the Directors in any announcement or circular which we are required to issue under the Listing Rules (as modified by the waivers granted to us by the Stock Exchange), including the responsibility statement in any announcement made pursuant to Note 2 of Rule 13.10 of the Listing Rules confirming that our Company is not aware of any matter or development that is or may be relevant to the unusual price movement or trading volume of our listed securities on condition that our Company will include the responsibility statement to be given by the chief financial and investor relations officer of our Company in all announcements to be issued by it pursuant to Note 2 of Rule 13.10 of the Listing Rules.

## Methods of listing

Chapter 7 of the Listing Rules sets out the methods by which equity securities may be brought to listing, and the requirements applicable to each method. We have applied for, and the Stock Exchange has granted, waivers from strict compliance with certain of the requirements under Chapter 7.

## Offer for subscription and offer for sale

Listed companies in Brazil may offer new shares for subscription or their shareholders may offer existing shares for sale to the public by way of a public offering. Any issue of new shares offered for subscription by us must be made either pursuant to the general authorisation granted to the Board of Directors to issue new shares under the By-laws or a specific approval by our Shareholders.

In the event that an offer for subscription of new shares is being made by us to the public in Hong Kong or an offer for sale of existing shares is being made by our controlling shareholder (as defined in the Listing Rules) to the public in Hong Kong, we will comply with the requirements of

Rule 7.03, 7.04, 7.05, 7.07 and 7.08 of the Listing Rules, which require, among others, a listing document to be issued.

In the event that an offer for subscription or an offer for sale is being made in any jurisdiction otherwise than to the public in Hong Kong, we have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements of Rule 7.03, 7.04, 7.05, 7.07 and 7.08 of the Listing Rules.

To ensure that HDR Holders are kept informed of the details of any public offering (whether an offer for subscription or offer for sale) that we may undertake outside Hong Kong from time to time, we will publish any announcement or document required to be issued in connection with any such public offering under applicable Brazilian rules or regulations on the Stock Exchange's website by way of an overseas regulatory announcement at the same time as, or if not practicable due to time difference, as soon as practicable after, such announcement or document has been published on the website of CVM and/or BM&FBOVESPA.

# Placing

An offer for subscription or sale of shares by a listed company under Brazilian law will either be a public offering (that is, where the offer is marketed to an uncertain number of investors, irrespective of the types of investors, by way of the publication of a prospectus) or a private offering (that is, where the offer is extended only to its existing shareholders, who may transfer their subscription rights to third parties, on a pro rata basis and shares not taken up will be allotted to other existing shareholders who have expressed an intention to subscribe for the untaken shares or sold by the company in the market).

We will comply with the requirements of Rule 7.10 and 7.12 of the Listing Rules in the event that we conduct any offering (which falls within the meaning of a placing under Rule 7.09) of securities of a class new to listing on the Stock Exchange. We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements of Rule 7.10 and 7.12 where we conduct any placing of securities of a class new to listing on any other stock exchange.

# Rights issue

Listed companies in Brazil may offer new shares for subscription to their existing shareholders on a pro rata basis pursuant to their statutory pre-emptive rights by way of a private offering (being similar to a rights issue in Hong Kong).

If, at any time after the listing of the Depositary Receipts on the Stock Exchange, we undertake a private offering and the offer is being extended to the HDR Holders in a manner that would require us to comply with the requirements under the Companies Ordinance in relation to an offer to the public (including those in relation to prospectuses), we will comply with the relevant requirements under the Companies Ordinance and the requirement of Rule 7.22 of the Listing Rules with regard to the issue of a listing document. Otherwise, we have applied for, and the Stock Exchange has granted, a waiver from the requirement under Rule 7.22.

We have also applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Rule 7.19 to 7.21 of the Listing Rules in the event we undertake a private offering, on the basis that:

(a) any issue of new Shares by our Company pursuant to a private offering must be approved by its Shareholders, whether specifically or through a general authorization by way of amendment to the By-laws. The Corporations Act does not, however, require any shareholder to abstain from voting in the resolution approving the new issue unless under the specific circumstances set forth in the Corporations Act (see Appendix V to this Listing Document);

- (b) we are not required under Brazilian law to issue a prospectus in the event of a private offering;
- (c) Brazilian law does not require a private offering to be underwritten by a financial institution or other third party or additional disclosure similar to those required under Rule 7.19(3), (4) and (5) to be made where a private offering is not fully underwritten; and
- (d) there is no equivalent of renounceable provisional letters of allotment or other negotiable instrument issued in connection with a private offering and allocation of rights shares to shareholders and trading of rights not taken up by shareholders are conducted electronically through the central clearing system and the broker's accounts.

To ensure that HDR Holders are kept informed of the details of any private offering that we may undertake from time to time, we will publish any announcement or document required to be issued in connection with any such private offering under applicable Brazilian rules or regulations on the Stock Exchange's website by way of an overseas regulatory announcement at the same time as, or if not practicable due to time difference, as soon as practicable after, such announcement or document has been published on the website of CVM and/or BM&FBOVESPA. We will also ensure that details of the entitlements of the HDR Holders with respect to such private offering and the manner in which their entitlements may be accepted or disposed of will be disclosed in accordance with Brazilian law and set out in any such announcement or document.

## Capitalisation issue and exchange issue

Under the Listing Rules, a capitalisation issue is defined as an allotment of further securities by a listed company to its existing shareholders, credited as fully paid up out of its reserves or profits, in proportion to the existing holdings of its shareholders, or otherwise not involving any monetary payments, and an exchange issue is defined as an exchange or a substitution of securities for or a conversion of securities into other classes of securities.

In Brazil, a company whose shares do not have any par value (as in the case of our Company) may undertake a capitalisation issue by capitalising its reserves or profits, thereby increasing the amount of paid-up capital represented by each share in issue but not, however, increasing the number of shares in issue. It will involve an amendment of the by-laws of the company and hence, will require approval by the shareholders. The company is required to publish a management proposal disclosing the reasons for the capital increase and setting out the proposed amendments at the same time as the publication of the notice convening the shareholders' meeting at which such amendments are to be approved.

Under Brazilian law, an exchange issue by a company is required to be approved by its shareholders since it will involve an amendment of its by-laws and may also involve a change in the rights attached to the existing class of shares. The company is required to publish a management proposal setting out the proposed amendments at the same time as the publication of the notice convening the shareholders' meeting at which such amendments are to be approved.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Rule 7.28 and 7.29 (with respect to capitalisation issue) and Rule 7.32 and 7.33 (with respect to exchange issue) of the Listing Rules. On such basis, if we undertake a capitalisation of our reserves or profits or an exchange issue, we will comply with applicable legal and regulatory requirements in Brazil where we maintain our primary listing.

To ensure that HDR Holders are kept informed of the details of any capitalisation of reserves or profits or exchange issue that we may undertake from time to time, we will publish any announcement or document required to be issued in relation to such capitalisation or exchange issue (as the case may be) under applicable Brazilian rules or regulations on the Stock Exchange's website by way of an overseas regulatory announcement at the same time as, or if not practicable due to time difference, as soon as practicable after, such announcement or document has been

published on the website of CVM and/or BM&FBOVESPA. We will also ensure that disclosure will be made in accordance with Brazilian law in any such announcement or document (a) in the case of a capitalisation of our reserves or profits, on the amount of the increased share capital upon completion of the capitalisation; and (b) in the case of an exchange issue, on the details of the entitlements of the HDR Holders with respect to such exchange issue and the effect on the existing rights on the securities.

# Share repurchase and treasury shares

## Dealing restrictions

Under Rule 10.06(2) of the Listing Rules, a listed issuer is subject to certain dealing restrictions in connection with the repurchase of any of its shares on the Stock Exchange. Rule 19.43(1) of the Listing Rules provides that the Stock Exchange will be prepared to waive some or all of the applicable dealing restrictions set out in Rule 10.06(2) if an overseas issuer's primary exchange already imposed equivalent dealing restrictions on the overseas issuer in respect of shares on the Stock Exchange.

We are currently subject to equivalent or similar dealing restrictions on share repurchases under the CVM Rules as those set out in Rule 10.06(2) of the Listing Rules:

- (a) under Article 2 of CVM Rule 10/80, we are prohibited from purchasing our own shares at a price that exceeds their market value;
- (b) all transactions under a stock buy-back programme must be effected on a stock exchange, unless CVM grants a special authorisation. As a general rule, repurchases of shares are made in cash;
- (c) under Article 2 of CVM Rule 10/80, we are prohibited from purchasing our own shares from the Controlling Shareholders. Although there is no equivalent provision in Brazil which prohibits repurchases knowingly from directors and chief executives and other related parties, given that all transactions under a stock buy-back programme must be effected on a stock exchange unless CVM grants a special authorisation. It is practically very difficult for us to knowingly repurchase our shares from any particular person, including any connected person as defined in Chapter 14A of the Listing Rules; and
- (d) under the CVM Rules, no repurchases of shares by us may be made when (i) disclosure of price-sensitive information is pending; and (ii) 15 days before the publication of our annual and quarterly financial statements.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Rule 10.06(2) with respect to any repurchase by us of our HDRs on the Stock Exchange, our Shares on BM&FBOVESPA or our ADRs on NYSE or NYSE Euronext Paris, on condition that we will comply with Rule 10.06(2)(d) and procure any broker appointed by us to effect any repurchase of HDRs on the Stock Exchange to disclose to the Stock Exchange such information with respect to the repurchase made on behalf of our Company as the Stock Exchange may request.

# Publication of details of share repurchase

Rule 10.06(4)(a) requires a listed issuer to submit to the Stock Exchange for publication the total number of shares purchased by the listed issuer and certain other information, not later than 30 minutes before the earlier of the commencement of the morning trading session or any pre-opening session on the business day following any day on which the listed issuer makes a purchase of its shares.

We are not required under any of the rules and regulations of CVM or BM&FBOVESPA or those of SEC, NYSE or AMF to disclose any repurchase of shares immediately after such repurchase occurs. However, we are required by the CVM Rules to publish on the websites of CVM and BM&FBOVESPA,

as well as any stock exchange on which our securities are traded (if required by such stock exchange) the resolution of our Board of Directors or Shareholders approving a stock buy-back programme and its terms, and a general authorisation to the Executive Officers to cancel or maintain in treasury the repurchased shares, immediately after the passing of such resolution.

The CVM Rules also require us to include in our annual and quarterly financial statements (a) the number of shares repurchased (set out by type and class) during the year or relevant quarterly period (as the case may be); and (b) the highest, the lowest and the weighted average price paid for such repurchases, both of which are information required to be disclosed under Rule 10.06(4)(a). We are also required to disclose the net profit on all sales of treasury shares, the market value of our shares (set out by type and class) based on the last trading day of the previous financial year or quarterly period (as the case may be), any adjustments accrued on the price of shares held in treasury due to inflation, and the purpose for making such repurchase. SEC imposes a similar requirement for annual disclosure of share repurchases in the Form 20-F (including the number of shares purchased per month and the average price paid per share per month).

The only information which we are not currently required to disclose under the CVM Rules but is required under Rule 10.06(4)(a) is the confirmation that the repurchase was made in accordance with the rules of the stock exchange on which such repurchase was made, and to address this, we will include such confirmation in the overseas regulatory announcement that we will issue in Hong Kong when we publish our quarterly financial statements.

Our Company will, if it repurchases any of its Shares, ADRs or HDRs and such repurchase is sufficiently material so as to constitute price sensitive information, comply with Rule 13.09(1) of the Listing Rules and promptly publish an announcement disclosing relevant details of the repurchase.

On the basis of the above, we have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement in Rule 10.06(4)(a) for publication of details of any share repurchase on the business day following the day on which such repurchase is made. We will continue to disclose details of share repurchases in our annual and quarterly financial statements in accordance with the CVM Rules.

# Cancellation of shares upon repurchase

Rule 10.06(5) of the Listing Rules provides that the listing of all shares which are purchased by an issuer (whether on the Stock Exchange or otherwise) shall be automatically cancelled upon purchase and the listed issuer must apply for listing of any further issues of that type of shares in the normal way. The listed issuer must also ensure that the documents of title of purchased shares are automatically cancelled and destroyed as soon as reasonably practicable following settlement of any such purchase. Rule 19.43(2) provides that the Stock Exchange will be prepared to waive the requirement to cancel and destroy the documents of title of purchased shares in the case of an overseas issuer whose primary exchange permits treasury stock, provided that the overseas issuer must apply for the re-listing of any such shares which are reissued as if it were a new issue of those shares. Rule 19B.21 further provides that if depositary receipts are purchased by the listed issuer, it shall surrender the purchased depositary receipts to the depositary. The depositary shall then cancel the surrendered depositary receipts and shall arrange for the shares represented by the surrendered depositary receipts to the issuer and such shares shall be cancelled by the issuer.

Treasury stock is permitted under the Corporations Act and the CVM Rules in Brazil and the rules and regulations issued by SEC and NYSE in the United States. Hence, Shares or ADRs purchased by us may be held by us as treasury stock. Our treasury stock (which includes shares held by our subsidiaries and affiliates) may not exceed 10% of the free float of each type or class of Shares. Since the listing approval granted by BM&FBOVESPA to us was by reference to the entire class of our Common Shares and Class A Preferred Shares (including Shares held in the form of treasury stock) and not just limited to the Common Shares or Class A Preferred Shares in issue, if we decide to offer any treasury stock, it would not be necessary to apply to BM&FBOVESPA for the re-listing of such treasury stock. Further,

our Shares are in book-entry form registered in the name of each Shareholder or its nominee and no document of title exists.

In the event we repurchase any HDRs listed on the Stock Exchange, we will comply with Rule 19B.21 of the Listing Rules to surrender the repurchased HDRs to the HDR Depositary, who will cancel the surrendered HDRs and arrange for the underlying shares represented by the surrendered HDRs to be transferred to us. However, we will not cancel the Shares represented by any surrendered HDRs as treasury stock is permitted under the Corporations Act and the CVM Rules in Brazil.

On the basis of the above, we have applied for, and the Stock Exchange has granted, waivers from strict compliance with the requirements under Rule 10.06(5) and 19B.21 of the Listing Rules for us to (a) cancel the listing; (b) apply for the re-listing of any further issue; and (c) cancel and destroy the documents of title of any Shares purchased by us on BM&FBOVESPA or any Shares represented by ADRs purchased by us on NYSE or any Shares represented by HDRs purchased by us on the Stock Exchange, on condition that our Company:

- (a) has a secondary listing on the Stock Exchange and maintains the primary listing of our Shares on BM&FBOVESPA and the listing of our ADRs on NYSE;
- (b) complies with the rules and regulations of CVM, BM&FBOVESPA, SEC and NYSE relating to treasury stock and will inform the Stock Exchange as soon as reasonably practicable in the event of any failure to comply or any waiver having been granted to our Company;
- (c) will inform the Stock Exchange as soon as reasonably practicable in the event of any change to the Brazilian or US regulatory regime on treasury stock;
- (d) will confirm compliance with the conditions set out in (a) to (c) above in the overseas regulatory announcement that we will issue in Hong Kong when we publish our annual report on Form 20-F and the management proposal to be issued by us together with the notice of any general meeting at which any stock buy-back programme is to be approved; and
- (e) will comply with any applicable requirements in the event of any change to the Hong Kong regulatory regime or the Listing Rules on treasury stock (subject to any waiver which may be sought by our Company and granted by the Stock Exchange or other relevant regulatory authorities).

As part of this waiver application, we have agreed with the Stock Exchange a list of modifications to a number of provisions under the Listing Rules which are necessary to enable our Company to hold our current and future treasury shares. Those modifications also reflect various consequential matters to deal with the fact that our Company may hold treasury shares in the future. For the full list of those modifications, please refer to Appendix IV to this Listing Document. We will provide an annual submission to the Stock Exchange regarding any further modifications to the Listing Rules which are necessary as a result of any changes in the Listing Rules or other applicable laws and regulations. Any further modifications to the Listing Rules will have to be agreed with the Stock Exchange in advance.

#### Further issue of securities

Rule 10.08 of the Listing Rules provides that no further shares or securities convertible into equity securities of a listed issuer may be issued or form the subject of any agreement to such an issue within six months from the date on which securities of the listed issuer first commence dealing on the Stock Exchange.

Our Common Shares and Class A Preferred Shares are already listed on BM&FBOVESPA and (in the form of ADRs representing ADSs) NYSE and NYSE Euronext Paris and hence, the listing on the Stock Exchange is not an initial but a further listing. Apart from the statutory pre-emptive rights conferred under the Corporations Act and the By-laws, we are currently not subject to any

restriction which prevents us from issuing new shares. The listing of our HDRs on the Stock Exchange will be by way of introduction and will not involve any fund raising and hence, there is no concern of new investors being subject to the risk of dilution within a relatively short time after the listing. On such basis, we consider that it would be unduly onerous to restrict our ability to raise funds through the issuance of new shares on terms set out in Rule 10.08.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the restrictions on further issue of securities within six months from the Listing Date under Rule 10.08 of the Listing Rules, and a consequential waiver from strict compliance with Rule 10.07(1)(a) of the Listing Rules in respect of the deemed disposal of Shares by our controlling shareholder(s) upon issue of securities by our Company within the first six months from the Listing Date, on condition that Valepar will remain as the controlling shareholder (as defined in the Listing Rules) of our Company within the first twelve months following the Introduction.

#### Notifiable transactions

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements applicable to notifiable transactions in Chapter 14 of the Listing Rules. We will continue to comply with the continuing obligations with respect to Material Facts and Major Acquisitions under the rules and regulations issued by CVM and SEC which include:

- (a) if the transaction constitutes a "Major Acquisition" within the meaning of the Corporations Act (please see Appendix V to this Listing Document), we will comply with the requirements under the Corporations Act of obtaining Shareholders' approval prior to completion of the acquisition or seeking Shareholders' ratification after completion of the acquisition as well as any requirement to issue an announcement at the time when the acquisition is entered into; and
- (b) otherwise, if the transaction constitutes a Material Fact, we will announce the transaction in accordance with the requirements of the CVM Rules and SEC rules at the time when the transaction is entered into, and the announcement will be published on the Stock Exchange's website at the same time as, or if not practicable due to the restrictions in Rule 2.07C(4)(a) of the Listing Rules or the closure of the electronic document submission system of the Stock Exchange outside operational hours, as soon as practicable after, such notice is published on the websites of CVM, BM&FBOVESPA and/or SEC.

For more information about the compliance obligations under the Corporations Act, the CVM Rules and/or SEC rules in respect of Major Acquisitions and Material Facts, please refer to Appendix V to this Listing Document.

## Connected transactions

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements applicable to connected transactions in Chapter 14A of the Listing Rules. We will continue to comply with the continuing obligations with respect to related party transactions under the rules and regulations issued by CVM and SEC. On such basis, we will:

- (a) if any related party transaction constitutes a Material Fact, publish a notice of Material Fact immediately after such transaction has been entered into;
- (b) include in our Annual Disclosure Document, the outstanding balances and summaries of all related party transactions that we have entered into during the three years preceding the date of the Annual Disclosure Document and/or that are effective in the year to which the Annual Disclosure Document relates;
- (c) include in our quarterly report, the outstanding balances and summaries of all related party transactions that we have entered into during that quarter; and

(d) include in our annual report on Form 20-F specific disclosure about the outstanding balances of all related party transactions for the period since the beginning of our last full fiscal year up to the latest practicable date before the filing of the Form 20-F.

# Options, warrants and similar rights

Chapter 15 of the Listing Rules sets out certain criteria to be satisfied by a listed issuer before the Stock Exchange will grant approval for the issue or grant of options, warrants or similar rights to subscribe or purchase equity securities by the listed issuer or any of its subsidiaries and to the issue of warrants which are attached to other securities by the listed issuer or any of its subsidiaries, as well as the minimum content to be included in the circular or the notice to be sent to the shareholders when convening a general meeting to approve the issue or grant of such options, warrants or rights. Practice Note 4 of the Listing Rules sets out certain additional requirements for the issue of new warrants to existing warrantholders by a listed issuer or the alteration of the exercise period or the exercise price of existing warrants.

Under the Corporations Act, there are similar concepts as those under Chapter 15 of the Listing Rules which require (a) all warrants to be either approved by shareholders or, where there has been prior authorisation granted by the shareholders, by the board of directors; and (b) the issue of warrants to be subject to a limit in terms of the number of shares that may be issued upon the exercise of those warrants.

The main differences are under the laws and regulations of Brazil, there is no maximum percentage limit on the shares that may be issued upon exercise of the warrants in issue or a time limit on the expiry of the warrants as in Chapter 15 of the Listing Rules.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Chapter 15 and Practice Note 4 of the Listing Rules in relation to the issue or grant of options, warrants or similar rights to subscribe or purchase equity securities of our Company or any of our subsidiaries.

# Share option scheme

According to Rule 19.42 of the Listing Rules, the Stock Exchange may be prepared to vary the requirements applicable to schemes involving the issue of or grant of options over shares or other securities by a listed issuer to, or for the benefit of, executives and/or employees set out in Chapter 17 of the Listing Rules for an overseas company if its primary listing is on another stock exchange where different (or no such) requirements apply.

As our Company's primary listing is on BM&FBOVESPA, our Company is required to comply with the provisions under the CVM Rules in respect of stock option plans. As at the Latest Practicable Date, none of our Company or any of its subsidiaries has adopted any share option scheme that falls within the meaning of Chapter 17 of the Listing Rules.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements in Chapter 17 of the Listing Rules with respect to any share option scheme to be adopted by us or any of our subsidiaries, on condition that for so long as our HDRs are listed on the Stock Exchange, we will ensure that if and when our Company adopts a stock option plan, no stock option will be granted by us (a) after a Material Fact has arisen until a notice of Material Fact has been published; or (b) during the period of 30 days immediately preceding the publication of our quarterly financial statements and annual financial statements.

## Continuing obligations for mining companies

We have applied for, and the Stock Exchange has granted, waivers from strict compliance with the following continuing obligations under Chapter 18 of the Listing Rules:

- (a) the requirement under Rule 18.16 for a mineral company to include an update of its resources and/or reserves in its annual report in accordance with a recognised standard acceptable to the Stock Exchange under which they were previously disclosed, on the basis that (i) we currently prepare estimates of all of our proven and probable mineral reserves in accordance with Industry Guide 7 issued by the SEC and disclose such estimates annually in the Form 20-F which we file with the SEC and we do not disclose estimates of our resources; (ii) given the size and geographical spread of our mineral reserves, it would be unduly burdensome if we were to comply with the relevant requirements under Chapter 18 in addition to the regulatory requirements which we are currently subject to;
- (b) the requirement under Rule 18.30(4) for a mineral company to ensure that for commodity prices used in pre-feasibility studies, feasibility studies and valuations of indicated resources, measured resources and reserves, the methods to determine those commodity prices, all material assumptions and the basis on which those prices represent reasonable views of future prices are explained clearly, and if a contract for future prices of mineral reserves exists, the contract price is used, on the basis that (i) we have been using price assumptions equal to or less than the average prices for the immediately preceding three years of each mineral for the purposes of determining estimates of our mineral reserves in any year. Such price assumptions have been accepted by the SEC and are disclosed in our annual reports on Form 20-F; and (ii) we consider that the price assumptions based on historical prices are conservative, whereas future prices could be volatile and speculative;
- the requirement under Rule 18.32 for a mineral company to disclose information on petroleum resources under either the Petroleum Resources Management System published by the Society of Petroleum Engineers, American Association of Petroleum Geologists, World Petroleum Council and Society of Petroleum Evaluation Engineers in March 2007 (as amended from time to time) (PRMS) or other codes acceptable to the Stock Exchange. We do not have any petroleum reserves and only a limited amount of petroleum resources. We will, if we have any petroleum reserves in the future, report on those reserves in accordance with both Industry Guide 2 issued by the SEC and PRMS. We will not, however, disclose any petroleum resources on the basis that Industry Guide 2 prohibits disclosure of any petroleum resources unless such information is required to be disclosed by foreign or state law or has been provided to a non-affiliate that is offering to acquire the securities of the reporting company.

# Content requirements of articles of association or equivalent document

Appendix 3 to the Listing Rules provides that the articles of association or equivalent document of a listing applicant must conform to the provisions contained therein (the **Appendix 3 Requirements**). The By-laws do not conform to certain of the Appendix 3 Requirements and we have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the Appendix 3 Requirements set forth below:

# As regards transfer and registration

Appendix 3 Requirement 1(1) states that transfers and other documents relating to or affecting the title to any registered securities shall be registered and where any fee or fees is or are charged, such fee or fees shall not exceed the maximum fees prescribed by the Stock Exchange from time to time in the Listing Rules.

In accordance with the Corporations Act, all transfers of legal ownership in the shares of our Company must be registered in the register of transfers of our Company maintained by Banco Bradesco. As the requirement for registration of transfer of the legal ownership in the shares of our Company is imposed by law, it is not necessary for such a requirement to be incorporated into the Bylaws.

There is no prescribed fee payable on registration of transfer of shares in our Company either under the Corporations Act or the By-Laws. Although the Corporations Act does not prohibit a company from charging a fee on registration of transfer of its shares, our Company currently does not charge any fee for registration of any such transfer.

Appendix 3 Requirement 1(2) states that fully-paid shares shall be free from any restriction on the right of transfer (except when permitted by the Stock Exchange) and shall also be free from all lien.

Although there is no equivalent provision in the By-Laws, there is a similar requirement to Appendix 3 Requirement 1(2) for publicly traded shares under the Corporations Act, which provides that shares admitted to public trading on BM&FBOVESPA are required to be free from all liens, and while any shareholder may encumber his shares, any encumbered shares may not be traded on BM&FBOVESPA or any other regulated markets in Brazil.

## As regards definitive certificates

Appendix 3 Requirement 2(1) states that all certificates for capital shall be under seal, which shall only be affixed with the authority of the directors.

All shares of our Company are in scripless and book-entry form which do not require share certificates to be issued. The book entry system is not compatible with the issuance of share certificates. Shareholders may, however, request a formal statement from the share custodian of our Company or by BM&FBOVESPA's clearing house (if the shares are in its custody), to state the number, type and class of shares held by such shareholder. Hence, Appendix 3 Requirement 2(1) is not applicable to our Company.

## As regards dividends

Appendix 3 Requirement 3(1) states that any amount paid up in advance of calls on any share may carry interest but shall not entitle the holder of the share to participate in respect thereof in a dividend subsequently declared.

Under Brazilian law, the subscription price for shares of our Company may be paid by instalments, in accordance with the shareholders' or board resolution that approved such issuance. Brazilian law, however, requires dividends to be paid to persons appearing as shareholders in the company's register of members on the date of approval of the profit distribution, whether or not their shares have been fully paid-up. Shares that have been subscribed but not fully paid-up give their holders the same right to receive dividends as holders of shares which have been fully paid-up. It would, therefore, be inconsistent with Brazilian law for our Company to adopt the requirement of Appendix 3 Requirement 3(1).

Appendix 3 Requirement 3(2) states that where power is taken to forfeit unclaimed dividends, that power shall not be exercised until six years or more after the date of declaration of the dividend. Under the Corporations Act and the By-Laws, unclaimed dividends will be forfeited three years after the date on which such dividends were declared. The maximum period to forfeit unclaimed dividends may be extended only by the shareholders at a general shareholders' meeting convened for the purposes of approving an extension of the maximum period to forfeit particular sum(s) of unclaimed dividends. Hence, it would be inconsistent with Brazilian law for our Company to adopt Appendix 3 Requirement 3(2) in the By-laws.

## As regards directors

Appendix 3 Requirement 4(1) states that subject to such exceptions as may be specified in the articles of association (or equivalent document) as the Stock Exchange may approve, a director shall not vote on any board resolution approving any contract or arrangement or any other proposal in which he or any of his associates has a material interest nor shall he be counted in the quorum present at the meeting.

Under the Corporations Act, our Directors and Executive Officers are required to refrain from taking part (or by any means intervening) in any resolution or action relating to any matter in which they have any conflicting interest in relation to our Company. Although there is no equivalent provision in the By-Laws, there is a similar restriction to Appendix 3 Requirement 4(1) under the Corporations Act.

Appendix 3 Requirement 4(3) states that where not otherwise provided by law, the listed issuer in general meeting shall have power by ordinary resolution to remove any director (including a managing or other executive director, but without prejudice to any claim for damages under any contract) before the expiration of his period of office.

Holders of the Common Shares (but not holders of the Preferred Shares) have the right to appoint and remove Directors generally, but the Corporations Act provides non-controlling holders of Preferred Shares and Common Shares of a specified percentage shareholding as well as employees, each as a group, the right to appoint and remove one Director. Please refer to the section headed "Management" in Appendix V to this Listing Document for a more detailed description of the rights of our Shareholders, non-controlling holders of the Common Shares and the Preferred Shares and our employees to appoint and remove Directors under the Corporations Act and the By-Laws. Pursuant to the Corporations Act and our By-Laws, only the group of Shareholders that has the right to appoint Directors has the right to remove the Directors appointed by them in general Shareholders' meetings. Hence, a general power to remove any Director by ordinary resolution will not be consistent with the requirements of Brazilian law given the share capital structure of our Company.

Appendix 3 Requirement 4(4) states that the minimum length of the period, during which notice to the listed issuer of the intention to propose a person for election as a director and during which notice to the listed issuer by such person of his willingness to be elected may be given, shall be at least 7 days. Appendix 3 Requirement 4(5) states that the period for lodgment of the notices referred to in sub-paragraph 4(4) shall commence no earlier than the day after the dispatch of the notice of the meeting appointed for such election and end no later than 7 days prior to the date of such meeting.

The Corporations Act does not require any minimum length of notice to be given to our Company regarding the nomination of Directors. It would, therefore, be inconsistent with Brazilian law for our Company to adopt the requirement in Appendix 3 Requirement 4(4) in the By-laws.

# As regards accounts

Appendix 3 Requirement 5 states that a copy of either (i) the directors' report, accompanied by the balance sheet (including every document required by law to be annexed thereto) and profit and loss account or income and expenditure account, or (ii) the summary financial report shall, at least 21 days before the date of the general meeting, be delivered or sent by post to the registered address of every member.

We are currently not required under the Corporations Act or the rules or regulations of CVM, BM&FBOVESPA, SEC, NYSE or other stock exchanges on which our Shares or ADRs are listed and/or traded to deliver printed copies of our financial statements, annual reports or quarterly reports to our Shareholders, whether by post or otherwise. Pursuant to the CVM Rules, we publish our annual financial statements (together with the management report, the auditors' report and the opinion of

the Fiscal Council) prepared in accordance with Brazilian GAAP on the websites of CVM and BM&FBOVESPA at least one month before the annual general meeting, which is earlier than the deadline by which annual accounts are required to be published under Appendix 3 to the Listing Rules. We also publish the annual financial statements prepared in accordance with US GAAP at the same time.

# As regards rights

Appendix 3 Requirement 6(2) states that the quorum for a separate class meeting (other than an adjourned meeting) to consider a variation of the rights of any class of shares shall be the holders of at least one-third of the issued shares of that class.

Under the Corporations Act, any variation of the rights attached to the preferred shares of a company would require approval of shareholders holding more than 50% of the voting share capital. Such change would necessarily involve an amendment to the company's by-laws. A general meeting at which a variation in the rights attached to the preferred shares and a consequential amendment to the by-laws is to be approved, requires the attendance of shareholders holding at least two-thirds of the total voting shares on first call. If the necessary quorum is not present, the meeting will not be convened and may be reconvened within at least eight days' prior notice. On second call, the shareholders' meeting may be regularly convened with the presence of any number of shareholders. A preferred shares class meeting is only required for variation of a class right if such variation is detrimental to the interests of the holders of such class of preferred shares. As the quorum requirement for a company whose shares are publicly traded is prescribed by the Corporations Act, the adoption of Appendix 3 Requirement 6(2) would be inconsistent with such requirement.

# As regards redeemable shares

Appendix 3 Requirement 8 states that where the listed issuer has the power to purchase for redemption any redeemable share: (1) purchases not made through the market or by tender shall be limited to a maximum price; and (2) if purchases are by tender, tenders shall be available to all shareholders alike.

We do not currently have any outstanding redeemable shares. In the event that we issue redeemable shares, the Corporations Act requires that the basis and formula for determining the repurchase or redemption price to be stated in the By-Laws or in the minutes of the shareholders' meeting approving the issue of such shares. This requirement under the Corporations Act effectively ensures that Appendix 3 Requirement 8(1) will be met.

In the event that we issue redeemable shares with power to purchase for redemption, the Corporations Act allows us to determine whether we will redeem shares from all Shareholders of a given type or class of shares or from only a portion of Shareholders, and if we decide to redeem shares from only a portion of such Shareholders, the selection will be made by means of a raffle. It would be inconsistent with Brazilian law for us to adopt Appendix 3 Requirement 8(2).

## As regards non-voting or restricted voting shares

Appendix 3 Requirement 10(2) states that where the equity capital includes shares with different voting rights, the designation of each class of shares, other than those with the most favourable voting rights, must include the words "restricted voting" or "limited voting".

Under the Corporations Act, a Brazilian publicly traded corporation may not issue different classes of unrestricted voting shares. It may however, issue different classes of preferred, restricted or non-voting shares. The rights of all such preferred shares must be clearly and specifically stated in the company's by-laws, but there is no requirement for each class of shares to include the words "restricted voting" or "limited voting".

Neither the Corporations Act nor the By-Laws contain any requirement similar to Appendix 3 Requirement 10(2). While the Corporations Act does not specifically prohibit the description of shares as "restricted voting" or "limited voting" in the By-laws, it is not, as far as we are aware, a practice commonly adopted by Brazilian companies. We consider that the current designation of our Shares already provides a sufficiently clear distinction.

# As regards proxies

Appendix 3 Requirement 11(2) states that a corporation may execute a form of proxy under the hand of a duly authorised officer.

The Corporations Act provides that where a shareholder of a company is a corporation, the duly authorised officer(s) of the corporation shall have the power to execute any document appointing a proxy to act on behalf of the shareholder. Although there is no equivalent provision in the By-Laws, the Corporations Act does contain a requirement similar to Appendix 3 Requirement 11(2).

## As regards disclosure of interests

Appendix 3 Requirement 12 states that no powers shall be taken to freeze or otherwise impair any of the rights attaching to any share by reason only that the person or persons who are interested directly or indirectly therein have failed to disclose their interests to the company.

There is no requirement under the Corporations Act or the By-laws for a Shareholder to disclose his interests in our Shares to us. Hence, there is no provision under Brazilian law or the By-laws relating to the power to freeze or otherwise impair any of the rights attaching to any Share by reason only that any person who is interested directly or indirectly in our Shares has failed to disclose his interest to us.

The CVM Rules, however, require Shareholders having 5% or more interests in any Securities of our Company to disclose their interests. Under the By-laws, failure by any Shareholder to disclose his interests pursuant to the CVM Rules would, however, not result in any suspension or restriction of the rights of such Shareholder.

## As regards voting

Appendix 3 Requirement 14 states that where any shareholder is, under the Listing Rules, required to abstain from voting on any particular resolution or restricted from voting only for or only against any particular resolution, any votes cast by or on behalf of such shareholder in contravention of such requirement or restriction shall not be counted.

A shareholder of our Company is required under the Corporations Act to abstain from voting only under certain specific circumstances set forth in the Corporations Act (see Appendix V to this Listing Document). If a Shareholder is proved to be in conflict of interest with our Company under any other circumstance with respect to a resolution, and the resolution would not have been approved but for the affirmative vote of such Shareholder, Brazilian courts have the authority to annul such resolution upon being challenged by any interested party. CVM also has the authority to review any transaction entered into between shareholders and a listed company to determine whether such transaction has been entered into in breach of the conflict of interests provisions which prevent voting by any interested shareholder (and to impose sanctions on any wrongdoer(s)).

## Model Code for Securities Transactions by Directors

The Model Code for Securities Transactions by Directors in Appendix 10 to the Listing Rules sets out certain provisions which a director of a listed issuer must comply with when dealing in its securities, and certain disclosure obligations on the listed issuer.

Our Board of Directors has approved and adopted a Securities Trading Policy (the Securities Trading Policy) and any violation of the policy would constitute a violation of our Code of Ethics, which would result in the imposition of penalties. Our current Securities Trading Policy applies to all dealings in the securities of our Company (including in the form of ADRs or, upon completion of the Introduction, HDRs) by "Affected Persons", which is defined to include all Directors, all members of the Fiscal Council, all members of our Company's advisory committees, all the Executive Officers, departmental officers, general managers, managers, supervisors and other employees of our Company who are privy to privileged information as a result of their position or function in our Company or its controlled companies, as well as the representatives of the shareholders of Valepar and the directors of Valepar.

# Interpretation of Appendix 10

We have applied for, and the Stock Exchange has granted, a waiver from adopting the definition of "dealing" as set out in paragraph 7(a) of Appendix 10, on the basis that we will continue to follow the definition of "trading" in the CVM Rules, which is defined to mean an acquisition, disposal or transfer of any of the securities of a company.

# Rule A3(a)(i) of Appendix 10

Rule A3(a)(i) of Appendix 10 provides that a director must not deal in any securities of the listed issuer on any day on which its financial results are published and during the period of 60 days immediately preceding the publication date of the annual results or, if shorter, the period from the end of the relevant financial year up to the publication date of the results.

Under our current Securities Trading Policy, the black-out period during which Affected Persons must not trade in the securities of our Company is 15 days prior to the disclosure or publication of the quarterly or annual financial statements of our Company and 2 days after such disclosure or publication. We will, after the listing of our HDRs in Hong Kong, extend such black-out period from 15 to 30 days prior to the disclosure or publication of the quarterly or annual financial statements of our Company and 2 days after such disclosure or publication, such that we will comply with the requirement under Rule A3(a)(ii) of Appendix 10 in respect of the black-out period before the publication of our quarterly results.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement to extend the black-out period applicable to the publication of our annual financial statements under our current Securities Trading Policy to 60 days.

# Rule A6 of Appendix 10

Rule A6 of Appendix 10 provides that the restrictions on dealings by a director contained therein will be regarded as equally applicable to any dealings by the director's spouse or by or on behalf of any minor child (natural or adopted) and any other dealings in which for the purposes of Part XV of the SFO, he is or is to be treated as interested, and it is the duty of the director, therefore, to seek to avoid any such dealing at a time when he himself is not free to deal.

Under our Securities Trading Policy, the trading restrictions apply in all cases where any Affected Person (including any Director of our Company) engages in trading for his direct and/or indirect benefit through, for example:

- (a) companies in which he has direct or indirect control;
- (b) parties with whom he enters into a management agreement, trust agreement or asset management agreement;
- (c) his attorneys-in-fact or agents; or
- (d) his spouse from whom he is not legally separated, unmarried partner and dependants,

but the restrictions do not apply to trading carried out through investment funds in which the Affected Person is a shareholder, provided that: (1) the investment funds are open, non-exclusive funds; and (2) the trading decisions of the investment fund manager are not influenced by the fund's shareholders.

Although the trading restrictions under our Securities Trading Policy do not extend to dealings other than those by a Director's spouse or by or on behalf of any minor child (natural or adopted) in which, for the purposes of Part XV of the SFO, a Director is or is to be treated as interested, we consider that the policy already provides sufficient safeguard against the use of unpublished price sensitive information by any Director in securities trading conducted indirectly through any person or entity whose trading decisions he may be able to influence.

In addition, the SFC has granted the partial exemption to our Company from the requirements under Part XV of the SFO for our Shareholders, Directors and Executive Officers to notify their interests in our securities and for our Company to prepare registers and maintain records, other than Divisions 5, 11 and 12. Based on the partial exemption granted by the SFC, our Directors do not have to be concerned, for disclosure purposes, about the interests in our Company's securities held by any person or entity in which they are deemed to be interested under Part XV of the SFO.

On such basis, our Directors should not be required to seek to avoid any dealing by any such person or entity, as required by Rule A6 of Appendix 10. We have therefore applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement under Rule A6 of Appendix 10 with respect to any dealings (other than any dealings by the Director's spouse or by or on behalf of any minor child (natural or adopted)) in which for the purposes of Part XV of the SFO, a Director is or is to be treated as interested, except (a) any dealings by a corporation which it or its directors are accustomed or obliged to act in accordance with the directions or instructions of such Director; and (b) any dealings by a person or entity of which such Director may be able to influence his or its trading decisions.

## Rule B of Appendix 10

Rule B of Appendix 10 sets out the notification procedures which a director of a listed issuer must comply with before dealing in any securities of the listed issuer. We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Rule B of Appendix 10.

Currently, our Directors, Executive Officers and members of the Fiscal Council are not required to give prior notice to our Company (or seek prior consent) of any dealing in securities of our Company. However, pursuant to the Securities Trading Policy, when there is unpublished price sensitive information, the investor relations officer will notify all Directors, Executive Officers and members of the senior management by e-mail that they are prohibited from dealing in our Company's securities pending the release of such price sensitive information.

In addition, Directors, Executive Officers and members of the Fiscal Council are required to notify our Company within five days after undertaking any trading in our Securities (see definition in Appendix V to this Listing Document). They are also required to disclose to our Company, on a monthly basis, the interests and short positions in any Securities of our Company held by them and their respective Relevant Persons. Interests and short positions in derivatives and other securities the underlying assets of which comprise Securities of our Company are also required to be disclosed.

On the basis of the arrangements described above, and taking into account that our Directors, Executive Officers and members of the Fiscal Council are subject to insider trading restrictions under Brazilian and U.S. law and will be subject to similar restrictions under Hong Kong law upon listing of the HDRs on the Stock Exchange, we consider that there is a similar level of shareholders' protection notwithstanding that there is no requirement for a Director, Executive Officer or member of the Fiscal Council to notify our Company prior to any dealing in our Securities.

## Rule D15 of Appendix 10

Rule D15(a) of Appendix 10 requires a listed issuer to disclose in its interim and annual reports whether it has adopted a code of conduct regarding securities transactions by directors on terms no less exacting than the required standard set out in Appendix 10. We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with such requirement on the basis that we will, instead of disclosing in our interim and annual reports, disclose in the overseas regulatory announcement to be published on the Stock Exchange's website when we publish the annual report on Form 20-F and the second quarter report that we have adopted the Securities Trading Policy on terms no less exacting than the required standard set out in Appendix 10 as modified by the waivers granted to us by the Stock Exchange.

Rule D15(b) and (c) of Appendix 10 further require a listed issuer to disclose in its interim and annual reports whether, having made specific enquiry of all directors, the directors have complied with the required standard set out in Appendix 10 and its code of conduct regarding securities transactions by directors, and in the event of any non-compliance with the required standard set out in Appendix 10, details of such non-compliance and an explanation of the remedial steps taken to address such non-compliance.

Each Director, Executive Officer and member of the Fiscal Council is required to disclose to our Company on a monthly basis, among other things, the interests and short positions in the Securities of our Company held by him and his Relevant Persons by way of the filing of an individual form to our Company. Our Company is required to forward the individual forms to CVM on a confidential basis.

If CVM becomes aware of any change in the interests and short positions in the Securities of our Company held by any Director, Executive Officer or member of the Fiscal Council which has occurred during any black-out period, it has the power to initiate investigation into the matter and to impose sanctions on any wrongdoer. CVM may request information from our Company, the Director, Executive Officer or member of the Fiscal Council involved or any third party concerned on a confidential basis. Our Company is not required to disclose to the market that any such investigation is being conducted unless CVM requests it to do so.

To avoid prejudicing any possible investigation carried out by CVM of any violation of the dealing restrictions during a black-out period by any Director, Executive Officer or member of the Fiscal Council, we have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements to make the disclosure as required under Rule D15(b) and (c) of Appendix 10.

# Content requirements of annual reports, interim reports, preliminary announcements of fullyear results and preliminary announcements of interim results

Appendix 16 to the Listing Rules sets out the minimum financial information that a listed issuer shall include in, among others, its annual reports, interim reports, preliminary announcements of full-year results and preliminary announcements of interim results. Rule 19.44 of the Listing Rules provides that the Stock Exchange will be prepared to agree to such modification to Appendix 16 as it considers appropriate in a particular case in the context of a secondary listing.

We are currently required to publish, among others, (a) our annual financial statements prepared in accordance with US GAAP and audited in accordance with the standards of the Public Company Accounting Oversight Board (United States); (b) our annual report on Form 20-F; and (c) our quarterly report for the second quarter of a financial year prepared in accordance with US GAAP.

We consider that it would be unduly onerous if we were to include information required under Appendix 16 to the Listing Rules in our annual and second quarter reports which we are not required to include in our annual and second guarter financial statements under US GAAP. We have therefore

applied for, and the Stock Exchange has granted, a waiver from strict compliance with certain content requirements in Appendix 16 for annual reports and interim reports.

The following items are those that if we had not obtained the waiver referred to above, would have to be included in an annual report under Appendix 16 but which is not required to be included in our annual reports on Form 20-F:

- (a) information on debtors, including credit policy and ageing analysis of accounts receivable in the balance sheet;
- (b) ageing analysis of accounts payable in the balance sheet;
- (c) interests and short positions of each Director and Executive Officer in the Shares, underlying Shares and debentures of our Company or any associated corporation (within the meaning of Part XV of the SFO);
- (d) interests and short positions of every person, other than a Director or Executive Officer, in the Shares and underlying Shares of our Company as recorded in the register required to be kept under section 336 of the SFO;
- the unexpired term of any service contract, which is not determinable by the employer within one year without payment of compensation of any Director proposed for reelection;
- (f) particulars of any arrangement under which a Shareholder has waived or agreed to waive any dividends;
- (g) explanation of any material difference between the net income shown in the financial statements and any profit forecast published by our Company;
- (h) details of Director's and past Director's emoluments on a named basis;
- (i) particulars of any arrangement under which a Director has waived or agreed to waive any emoluments;
- (j) information in respect of the five highest paid individuals during the financial year;
- (k) disclosures required under the Tenth Schedule, section 128 (details of subsidiaries), 129 (details of investments), 129A (details of ultimate holding company), 129D (contents of the directors' report), 161 (directors' remuneration), 161A (corresponding figures), 161B (loans to company officers), 162 (directors' interests in contracts) and 162A (management contracts);
- (I) information in respect of our major customers and its major suppliers;
- (m) management discussion and analysis on (i) funding and treasury policies and objectives; (ii) the state of the Group's order book and prospects for new business; (iii) significant investments held, their performance during the financial year and their future prospects; (iv) comments on segmental information; (v) details of future plans for material investments or capital assets and their expected sources of funding in the coming year; and (vi) gearing ratio; and
- (n) the corporate governance report as in Appendix 23 to the Listing Rules.

The following items are those that if we had not obtained the waiver referred to above, would have to be included in an interim report under Appendix 16 but which is not required to be included in our second quarter report prepared in accordance with US GAAP:

(a) management discussion and analysis of the Group's performance in the first six months of a financial year;

- (b) details of interests in the equity or debt securities of our Company or any associated corporation at the end of the first six months of a financial year for each Director and Executive Officer and every person, other than a Director or Executive Officer, in the Shares and underlying Shares of our Company as recorded in the register required to be kept under section 336 of the SFO; and
- (c) confirmation whether our Company meets the code provisions set out in Appendix 14 to the Listing Rules during the first six months of the financial year.

We will make the following alternative disclosures:

- (i) with respect to the requirement to include a corporate governance report in our annual report and a statement in our second quarter report as to whether we meet the code provisions set out in Appendix 14 to the Listing Rules, we will, if we deviate from any code provision set out in Appendix 14 in any financial year or the first six months of any financial year after the listing of our HDRs on the Stock Exchange (other than any deviations already disclosed in this Listing Document), disclose and explain such deviation in the overseas regulatory announcement to be published on the Stock Exchange's website containing our annual report on Form 20-F or our second quarter report; and
- (ii) we will include a management discussion and analysis of the Group's performance in the first six months of the financial year in our second quarter report, which will include the information required under paragraph 32 of Appendix 16 to the Listing Rules, other than (1) funding and treasury policies and objectives; (2) the state of the Group's order book and prospects for new business; (3) significant investments held, their performance during the period and their future prospectus; (4) comments on segmental information; (5) details of future plans for material investments or capital assets and their expected sources of funding in the coming period; and (6) gearing ratio.

To comply with the requirement under Rule 13.49 the Listing Rules to publish preliminary announcements of annual results and interim results, we will publish on the Stock Exchange's website our annual financial statements and quarterly financial statements for the second quarter of a financial year prepared in accordance with US GAAP. We will not separately publish preliminary announcements of those results.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement in Appendix 16 to disclose whether we meet the code provisions set out in Appendix 14 to the Listing Rules and any deviations therefrom together with the reasons for such deviations in our annual financial statements and quarterly financial statements for the second quarter of a financial year prepared in accordance with US GAAP, on the basis that we consider the information contained in those financial statements of our Company is sufficient for our Shareholders and investors to evaluate the financial performance of the Group during the relevant financial year or period, and are therefore able to serve the purpose of preliminary results announcements.

## Spin-off listings

Practice Note 15 of the Listing Rules sets out the principles which the Stock Exchange applies when considering proposals submitted by a listed issuer to effect a separate listing of any of its subsidiaries.

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the provisions of Practice Note 15 with respect to any spin-off listings of any of our subsidiaries on

any stock exchange other than the Stock Exchange that we may decide to undertake from time to time, on the basis that we will:

- (a) observe the principle set out in paragraph 3(c) that after the spin-off listing, our Company would retain a sufficient level of operations and sufficient assets to support our Company's separate listing status;
- (b) observe the principles set out in paragraph 3(d)(i) to (iv) relating to clear delineation of business between our Company and the spun-off entity, ability of the spun-off entity to function independently of our Company, clear commercial benefits to both our Company and the spun-off entity in the spin-off, and no adverse impact on the interests of our Shareholders resulting from the spin-off; and
- (c) in the announcement to be issued by our Company pursuant to Rule 13.09(1) disclosing the spin-off proposal, (i) confirm that our Company would retain a sufficient level of operations and sufficient assets to support the separate listing status; and (ii) explain how our Company is able to meet the principles set out in paragraph 3(d)(i) to (iv).

In the event that we decide to proceed with the spin-off listing of any of our subsidiaries on the Stock Exchange, we will comply with the requirements of Practice Note 15 (other than paragraph 3(e) regarding shareholders' approval which will not be applicable to us on the basis of the waivers granted to us from compliance with Chapter 14 and 14A of the Listing Rules).

## Other continuing obligations

Rule 13.11 to 13.22

Rules 13.11 to 13.22 of the Listing Rules require disclosure of information in relation to specified matters relevant to our Company's business, including in relation to advances to an entity, financial assistance and guarantees to affiliated companies of an issuer, pledging of shares by the controlling shareholder, loan agreements with covenants relating to specific performance of the controlling shareholder, and breach of loan agreement by an issuer. We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rule 13.11 to 13.22. We will, where applicable, publish notice of Material Fact on the Stock Exchange's website pursuant to Rule 13.09(1) of the Listing Rules at the same time as, or if not practicable due to the closure of the electronic document submission system of the Stock Exchange outside operational hours, as soon as practicable after, such notice is published on the websites of CVM, BM&FBOVESPA and/or SEC. Where we release any price sensitive information (including a Material Fact) to BM&FBOVESPA, NYSE or NYSE Euronext Paris during the trading hours of the Stock Exchange, we will request a temporary suspension of trading in the HDRs on the Stock Exchange and as soon as practicable after the information has been released to BM&FBOVESPA, NYSE or NYSE Euronext Paris, inform the Stock Exchange and arrange for the release of such information to the market in Hong Kong in the next available window for submission of documents to the Stock Exchange and the resumption of trading in the HDRs on the Stock Exchange.

# Rule 13.25A and 13.31(1)

Rule 13.25A of the Listing Rules requires a listed issuer to file a next day disclosure return with the Stock Exchange whenever there is a change in its issued share capital as a result of or in connection with a placing, consideration issue, open offer, rights issue, bonus issue, scrip dividend, repurchase of shares or other securities, exercise of an option, capital reorganisation or any other change in share capital. Rule 13.31(1) of the Listing Rules requires a listed issuer to inform the Stock Exchange as soon as possible after any purchase, sale, drawing or redemption by the issuer, or any member of the group, of its listed securities. We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rule 13.25A of the Listing Rules to the extent that we are required to file a next day disclosure return in the case of any repurchase of shares or other

securities and Rule 13.31(1) of the Listing Rules in its entirety. We will otherwise comply with the requirement under Rule 13.25A to submit a next day disclosure return whenever there is a change in our issued share capital as a result of or in connection with the other events set out in Rule 13.25A.

#### Rule 13.25B

Rule 13.25B of the Listing Rules requires a listed issuer to publish a monthly return in relation to movements in its equity securities, debt securities and any other securitised instruments, as applicable, during the period to which the monthly return relates. We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rule 13.25B of the Listing Rules to the extent that we are required to include information on repurchase of shares in the monthly return.

# Rule 13.36 and 13.57

Rule 13.36 of the Listing Rules provides that the directors of a listed issuer shall obtain the consent of the shareholders in general meeting prior to any allotment, issue or grant of shares, unless pursuant to a general mandate granted by the shareholders to issue shares not exceeding the aggregate of 20% of the existing issued share capital of the listed issuer. Rule 13.57 of the Listing Rules provides that where an increase in authorised capital is proposed, the directors must state in the explanatory circular whether they have any present intention of issuing any part of that capital. We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rules 13.36 and 13.57 of the Listing Rules. We will issue new Shares in accordance with the requirements of Brazilian law as described in further detail in Appendix V to this Listing Document.

#### Rule 13.38

Rule 13.38 of the Listing Rules requires a listed issuer to send a proxy form with the notice convening a general shareholders' meeting to all persons entitled to vote at the meeting. We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rule 13.38 of the Listing Rules on the basis that (a) we are not currently required under the Corporations Act or by any of CVM, BM&FBOVESPA, NYSE, SEC or any other stock exchange on which our Shares or ADRs are listed or traded to send or make available proxy forms to our Shareholders in relation to any general Shareholders' meeting; and (b) voting instructions on each resolution to be approved at a general Shareholders' meeting will be obtained by the HDR Depositary from the registered holders and beneficial holders of the HDRs in accordance with the procedures described in the section of this Listing Document headed 'Listings, Terms of Depositary Receipts and Depositary Agreements, registration, dealings and settlement'.

#### Rule 13.39(4) and (5)

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with (a) Rule 13.39(4) of the Listing Rules to the extent that any vote of shareholders at a general meeting must be taken by poll; and (b) Rule 13.39(5) of the Listing Rules to the extent that (i) the announcement of the results of the general meeting must state the total number of shares entitling the holders to attend and vote for or against the resolution at the meeting, the total number of shares entitling the holder to attend and vote only against the resolution at the meeting, the number of shares represented by votes for and against the relevant resolutions; and (ii) a scrutineer for the vote-taking must be appointed and its identity must be stated in the announcement of the results of the general meeting.

Under the Corporations Act, the conduct of a general shareholders' meeting is attributed to the chairman of the meeting, who will, in general, decide how voting on a particular resolution to be considered at the meeting will be counted. Although voting in our Shareholders' meetings is conducted by a show of hands, votes are counted on the basis of one vote for each voting share held

by each of our Shareholders attending and voting at the meeting. Vote-taking at our Shareholders' meetings is usually undertaken by the secretary of the meeting, and the chairman of the meeting has the duty to ensure that votes are properly and accurately taken. We are required to publish, on the same day after the end of each general shareholders' meeting (a) a brief summary of the resolutions passed in the meeting; or (b) the minutes of the meeting (including, among others, the resolutions passed) on the websites of CVM, BM&FBOVESPA, and consequently, we are required to furnish such information to the SEC on a Form 6-K. There is no requirement under Brazilian law or any other rules or regulations for our Company to disclose the number of votes cast for or against each resolution, nor is it common practice in Brazil for listed companies to provide such information.

# Rule 13.46(2)

Rule 13.46(2) of the Listing Rules provides that an overseas issuer shall send to every member of the issuer and every other holder of its listed securities a copy of either its annual report including its annual accounts or its summary financial report, not less than 21 days before the date of the issuer's annual general meeting and in any event not more than four months after the end of the financial year to which they relate. Our annual report on Form 20-F will not be published before the annual general meeting of our Company. We have therefore applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rule 13.46(2) of the Listing Rules to the extent that the annual report is required to be issued not less than 21 days before the date of the annual general meeting, on the basis that we will issue our annual financial statements prepared in accordance with US GAAP (to be included in the Form 20-F) in both English and Chinese and our annual financial statements prepared in accordance with Brazilian GAAP not less than one month before the annual general meeting of our Company, and the annual financial statements prepared in accordance with Brazilian GAAP will be approved by our Shareholders at the annual general meeting.

# Rules 13.51(2), 13.51B(1) and (2), and 13.74

Rules 13.51(2), 13.51B(1) and (2), and 13.74 of the Listing Rules set out certain disclosure requirements in respect of any change in a listed issuer's directors, including appointment, redesignation and resignation of directors.

We have applied for, and the Stock Exchange has granted, waivers from strict compliance with the following requirements: (a) the requirements to include in the announcement of appointment of any Director the details specified under Rule 13.51(2)(c)(i), (e), (f), (g), (h) to (x) of the Listing Rules and the requirements to include those details of any Director proposed to be re-elected or proposed new Director in the notice of the general meeting at which such re-election or appointment is to be approved or the relevant management proposal; (b) the requirement to set out any change in certain information on any Director specified in Rule 13.51(2)(a) to (e) and (g) during the course of his term of office in our next published annual or interim report pursuant to Rule 13.51B(1); (c) the requirement to inform the Stock Exchange and publish an announcement as soon as practicable setting out any change in the information on any Director specified in Rule 13.51(2)(h) to (v) during the course of his term of office pursuant to Rule 13.51B(2); and (d) the requirement to inform the Stock Exchange immediately upon the resignation of any Director taking effect and publish an announcement on the Stock Exchange's website as soon as practicable disclosing reasons for his resignation, on condition that we will inform the Stock Exchange and publish an announcement as soon as practicable but in any event not later than seven business days after the resignation takes effect.

#### Rule 13.68

Rule 13.68 of the Listing Rules provides that a listed issuer shall obtain the prior approval of its shareholders (at which the relevant director and his associates shall not vote on the matter) for any service contract to be granted by the listed issuer or any of its subsidiaries to any director or proposed director which (a) is for a duration that may exceed three years; or (b) in order to entitle

the listed issuer to terminate the contract, expressly requires it to give a period of notice of more than one year or to pay compensation or make other payments equivalent to more than one year's emoluments. We do not generally enter into appointment contracts with our Directors and the Bylaws do not provide for any appointment contracts with our Directors to be approved by our Shareholders. However, there is a requirement under the Corporations Act for the aggregate amount of the compensation payable to our Directors, Executive Officers and our technical and advisory committees in each financial year to be subject to the approval of our Shareholders. Any compensation payable to a Director for termination in any financial year can only be made out of the aggregate amount of compensation that was so approved at the immediately preceding annual Shareholders' meeting. In addition, the rules on conflict of interests, set out in further detail in Appendix V to this Listing Document, will apply where any appointment contracts with our Directors are to be approved by the Board of Directors. On such basis, we have applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rule 13.68 of the Listing Rules.

## Rule 13.70

Rule 13.70 of the Listing Rules provides that a listed issuer shall publish an announcement or issue a supplementary circular upon receipt of a notice from a shareholder to propose a person for election as a director at the general meeting where such notice is received by the listed issuer after publication of the notice of meeting. Pursuant to the Corporations Act and our By-laws, the noncontrolling holders of our Common Shares and Preferred Shares are entitled to appoint Directors. There is no requirement for any advance notice to be given if those Shareholders propose to exercise such right. Those Shareholders may propose a person for election as a Director at any time before the relevant Shareholders' meeting or even at the meeting. It is therefore not possible for our Company to comply with Rule 13.70 to publish an announcement or issue a supplementary management proposal upon receipt of a notice from any of the non-controlling holders of our Common Shares or Preferred Shares to propose a person for election as a Director, or to adjourn the Shareholders' meeting to give our Shareholders at least 10 business days to consider the relevant information. On such basis, we have applied for, and the Stock Exchange has granted, a waiver from strict compliance with Rule 13.70 of the Listing Rules.

# PARTIAL EXEMPTION FROM THE DISCLOSURE OF INTERESTS REQUIREMENTS UNDER THE SFO

Part XV of the SFO imposes obligations on shareholders, directors and chief executives of a listed company to notify their interests in the listed company and for the listed company to prepare registers and maintain records. We are currently required under the CVM Rules to publish, on a monthly basis, a consolidated form which sets out the aggregate interests and short positions in our Securities held by all our Directors, Executive Officers and members of the Fiscal Council and their respective Relevant Persons. We are also required to disclose the interest and short position in our Securities of any Shareholder who holds an interest or short position of 5% or more in our Securities and any further acquisition or disposal by such Shareholder of an interest or short position in 5% or more in our Securities.

We have applied for, and the SFC has granted, a partial exemption under section 309(2) from the provisions of Part XV of the SFO (other than Divisions 5, 11 and 12) for our Shareholders, Directors and Executive Officers to notify their interests in our securities and for us to prepare registers and maintain records, on condition that:

- (a) we will file with the Stock Exchange all disclosures of interests made public in Brazil and the United States as soon as practicable on the basis that the Stock Exchange will publish these disclosures in the same way as those it receives from other listed corporations pursuant to Part XV of the SFO;
- (b) we will report to the SFC, within 10 business days after the end of each calendar month, what percentage of that month's average daily worldwide share turnover took place on

- the Stock Exchange, until such time when the SFC advises us otherwise in writing and in any case for no less than 12 months from the date of listing; and
- (c) we will advise the SFC if there is any material change in any of the information which we have given to the SFC, including any significant change to the disclosure requirements in Brazil or in the United States, and any exemption or waiver from the disclosure of interest requirements in Brazil or in the United States.

# RULING THAT WE ARE NOT A PUBLIC COMPANY IN HONG KONG UNDER THE TAKEOVERS CODE AND THE SHARE REPURCHASES CODE

Paragraph 4.1 of the Introduction to the Takeovers Code and the Code on Share Repurchases issued by the SFC provides that those codes apply to takeovers, mergers and share repurchases affecting, among others, public companies in Hong Kong and companies with a primary listing of their equity securities in Hong Kong.

We have sought, and the SFC has granted, a ruling that we would not be regarded as a public company in Hong Kong for the purposes of the Takeovers Code and the Code on Share Repurchases.

We are currently subject to the CVM Rules and the Corporations Act of Brazil and the Exchange Act of the United States in respect of takeovers and share repurchases. Please refer to Appendix VII to this Listing Document for more details.

Two depositary agreements have been entered into in respect of the Introduction on substantively identical terms. This section includes a summary of the principal terms of each Depositary Agreement. Because it is a summary, it does not contain all the information that may be important. For more complete information, you should read the entire Depositary Agreements and the forms of Depositary Receipts which contain the terms of the relevant HDSs. Copies of the Depositary Agreements are available for inspection in accordance with the details provided in Appendix IX to this Listing Document.

#### **LISTINGS**

Application has been made to the Listing Committee for granting the admission to secondary listing on the Main Board of the Stock Exchange of, and permission to deal in, the Depositary Receipts.

That application has been made in respect of two classes of Depositary Receipts, being Common Depositary Receipts representing Common HDSs and Class A Preferred Depositary Receipts representing Class A Preferred HDSs. Application had been made in respect of up to 259,242,052 Common Depositary Receipts and up to 393,470,993 Class A Preferred Depositary Receipts.

The Depositary Receipts will be denominated in HK Dollars with no par value.

The Common Shares and Class A Preferred Shares which the HDSs, and ultimately the Depositary Receipts, will represent are presently listed on BM&FBOVESPA in São Paulo, Brazil. Common Shares and Class A Preferred Shares are also presently traded on LATIBEX of the Madrid Stock Exchange. ADRs representing both Common Shares and Class A Preferred Shares are also presently listed on NYSE and traded on NYSE Euronext Paris.

#### TERMS OF DEPOSITARY RECEIPTS

Each Common Depositary Receipt will be issued against a Common HDS and each Class A Preferred Depositary Receipt will be issued against a Class A Preferred HDS deposited for the account of the HDR Depositary.

JPMorgan Chase Bank, N.A., as HDR Depositary, will issue HDRs representing the HDSs to investors in the HDRs following the Introduction.

Each Class A Preferred HDS will represent an ownership interest in one Class A Preferred Share and each Common HDS will represent an ownership interest in one Common Share, which will each be deposited with the Custodian, as agent of the HDR Depositary, under the respective Depositary Agreement.

The Custodian will hold the Common Shares and/or the Class A Preferred Shares for the account of the HDR Depositary on behalf of the HDR Holders, segregated from all other property of the Custodian.

In the future, each HDS will also represent any securities, cash or other property deposited with the HDR Depositary or the Custodian for the account of the HDR Holders. Unless their holders specifically request otherwise, all HDSs will be registered on the books of the HDR Depositary in book-entry form and periodic statements will be mailed to holders which reflect their ownership interest in such HDSs. In this description, references to Depositary Receipts or HDRs shall include the statements that holders will receive which reflect their ownership of HDSs.

The HDR Depositary's representative office is presently located at 20/F Chater House, 8 Connaught Road, Central, Hong Kong.

Holders may hold HDSs either directly or indirectly through their broker or other financial institution. If they hold HDSs directly, by having an HDS registered in their name on the books of the HDR Depositary, they are an HDR Holder. This description assumes direct holding of HDSs. If holders hold the HDSs through their broker or financial institution nominee, they must rely on the procedures of such broker or financial institution to assert the rights of an HDR Holder described in this section. They should consult with their broker or other professional adviser to find out what those procedures are.

We will not treat HDR Holders as Shareholders and HDR Holders will not have any Shareholder rights. Brazilian law governs the rights of Shareholders. Because the HDR Depositary or its nominee will be the holder of record for the Shares represented by all outstanding HDSs, Shareholder rights rest with such holder of record. The rights of an HDR Holder derive from the terms of the relevant Depositary Agreement. The obligations of the HDR Depositary and its agents are also set out in the Depositary Agreements. Because the HDR Depositary or its nominee will actually be the registered owner of the HDSs, HDR Holders must rely on the HDR Depositary to exercise the rights of a Shareholder on their behalf. The Depositary Agreements are governed by Hong Kong law and the Depositary Receipts will be created under and governed by Hong Kong law.

## **Share Dividends and Other Distributions**

# How will dividends and other distributions on the Shares underlying the HDSs be received?

We may make various types of distributions with respect to our securities. The HDR Depositary has agreed that, to the extent practicable, it will pay the cash dividends or other distributions it or the Custodian receives on Shares or other deposited securities, after converting any cash received into HK Dollars and, in all cases, making any necessary deductions provided for in the Depositary Agreements. Any conversion of dividends paid in a currency other than HK Dollars will occur at the available market rates prevailing at the time of conversion.

Except as stated below, the HDR Depositary will deliver such distributions to HDR Holders in proportion to their interests in the following manner:

- Cash. The HDR Depositary will distribute any HK Dollars available to it resulting from a cash dividend or other cash distribution or the net proceeds of sales of any other distribution or portion thereof (to the extent applicable), on an averaged or other practicable basis, subject to (i) appropriate adjustments for taxes withheld, (ii) such distribution being impermissible or impracticable with respect to certain registered HDR Holders, and (iii) deduction of the HDR Depositary's expenses in (1) converting any foreign currency to HK Dollars to the extent that it determines that such conversion may be made on a reasonable basis, (2) transferring foreign currency or HK Dollars to Hong Kong by such means as the HDR Depositary may determine to the extent that it determines that such transfer may be made on a reasonable basis, (3) obtaining any approval or licence of any governmental authority required for such conversion or transfer, which is obtainable at a reasonable cost and within a reasonable time and (4) making any sale by public or private means in any commercially reasonable manner. Any conversion of dividends paid in a currency other than HK Dollars will occur at the available market rates prevailing at the time of conversion. If exchange rates fluctuate during a time when the HDR Depositary cannot convert a foreign currency, HDR Holders may lose some or all of the value of the distribution.
- Shares. In the case of a distribution in Shares, the HDR Depositary will issue additional
  Depositary Receipts to evidence the number of HDSs representing such Shares. Only whole
  HDSs will be issued. Any Shares comprised in a distribution which would result in fractions
  of HDSs will be sold and the net proceeds will be distributed in the same manner as a cash
  distribution to the HDR Holder entitled thereto.

- Rights to receive additional Shares. In the case of a distribution of rights to subscribe for
  or acquire additional Shares or other similar rights, if we provide evidence satisfactory to
  the HDR Depositary that it may lawfully distribute such rights, the HDR Depositary will
  distribute warrants or other instruments in the discretion of the HDR Depositary
  representing such rights. However, if we do not furnish such evidence, the HDR Depositary
  may:
  - sell such rights if practicable and distribute the net proceeds in the same manner as cash to the HDR Holders entitled thereto; or
  - if it is not practicable to sell such rights, do nothing and allow such rights to lapse, in which case HDR Holders will receive nothing.
- Other distributions. In the case of a distribution of securities or property other than those
  described above, the HDR Depositary may either (i) distribute such securities or property in
  any manner it deems equitable and practicable or (ii) to the extent the HDR Depositary
  deems distribution of such securities or property not to be equitable and practicable, sell
  such securities or property and distribute any net proceeds in the same way it distributes
  cash.

If the HDR Depositary determines that any distribution described above is not practicable with respect to any specific registered HDR Holder, the HDR Depositary may choose any method of distribution that it deems practicable for such HDR Holder, including the distribution of foreign currency, securities or property, or it may retain such items, without paying interest on or investing them, on behalf of the HDR Holder as deposited securities, in which case the HDSs will also represent the retained items.

Any HK Dollars will be distributed by cheques for whole dollars and cents. Fractional cents will be withheld without liability and dealt with by the HDR Depositary in accordance with its then current practices.

The HDR Depositary is not responsible if it decides that it is unlawful or impractical to make a distribution available to any HDR Holders.

There can be no assurance that the HDR Depositary will be able to convert any currency at a specified exchange rate or sell any property, rights, shares or other securities at a specified price, nor that any of such transactions can be completed within a specified time period.

## **Deposit, Withdrawal and Cancellation**

# How does the HDR Depositary register title to HDSs?

The HDR Depositary will register title to HDSs if Shareholders or their broker deposit Shares or evidence of rights to receive Shares with the Custodian and pay the fees and expenses owing to the HDR Depositary.

Shares deposited with the Custodian might require to be accompanied by certain delivery documentation, including instruments showing that such Shares have been properly transferred or endorsed to the person on whose behalf the deposit is being made.

The Custodian will hold all deposited Shares for the account of the HDR Depositary on behalf of the HDR Holders. HDR Holders thus have no direct ownership interest in the Shares and only have such rights as are contained in the Depositary Agreements. The Custodian will also hold any additional securities, property and cash received on or in substitution for the deposited Shares. The deposited Shares and any such additional items are referred to as "deposited securities".

Upon each deposit of Shares, receipt of related delivery documentation and compliance with the other provisions of the Depositary Agreements, including the payment of the fees and charges

of the HDR Depositary and any taxes or other fees or charges owing, the HDR Depositary will issue a Depositary Receipt or Depositary Receipts in the name or upon the order of the person entitled thereto evidencing the number of HDSs to which such person is entitled. All of the HDSs issued will, unless specifically requested to the contrary, be part of the HDR Depositary's direct registration system, and a registered holder will receive periodic statements from the HDR Depositary which will show the number of HDSs registered in such holder's name. An HDR Holder can request that the HDSs not be held through the HDR Depositary's direct registration system and that a certificated Depositary Receipt be issued.

# How do HDR Holders cancel an HDS and obtain deposited securities?

When HDR Holders turn in their Depositary Receipt certificate at the HDR Registrar's office, or when they provide proper instructions and documentation in the case of direct registration HDSs, the HDR Depositary will, upon payment of certain applicable fees, charges and taxes, deliver the underlying deposited securities to the HDR Holder or to their written order. At the risk, expense and request of the HDR Holder, the HDR Depositary may deliver deposited securities at such other place as may be requested.

The HDR Depositary may restrict the withdrawal of deposited securities in connection with:

- temporary delays caused by closing our transfer books or those of the HDR Depositary or the deposit of Shares in connection with voting at a Shareholders' meeting, or the payment of dividends;
- the payment of fees, taxes and similar charges;
- compliance with any Hong Kong or foreign laws or governmental regulations relating to the Depositary Receipts or to the withdrawal of deposited securities; or
- any other situation where restriction of the right to withdraw at that time is deemed advisable by the HDR Depositary.

#### **Record Dates**

The HDR Depositary may, after consultation with us if practicable, fix record dates for the determination of the registered HDR Holders who will be entitled (or obligated, as the case may be):

- to receive any distribution on or in respect of Shares,
- to give instructions for the exercise of voting rights at a meeting of Shareholders, or
- to pay the fee assessed by the HDR Depositary for administration of the Depositary Receipt programme and for any expenses as provided for in the Depositary Agreements,
- to receive any notice or to act in respect of other matters,

all subject to the provisions of the Depositary Agreements.

#### **Voting Rights**

#### How to vote?

If the HDR Depositary asks to be provided with voting instructions, HDR Holders may instruct the HDR Depositary how to exercise the voting rights for the Shares which underlie the HDSs. As soon as practicable after receiving notice of any meeting or solicitation of consents or proxies from us, the HDR Depositary will distribute to the registered HDR Holders a notice stating such information as is contained in the voting materials received by the HDR Depositary and describing how HDR Holders may instruct the HDR Depositary or any other person to exercise the voting rights for the Shares

which underlie HDSs. For instructions to be valid, the HDR Depositary must receive them in the manner and on or before the date specified. The HDR Depositary will try, as far as is practical, subject to the provisions of and governing the underlying Shares or other deposited securities, to vote or to have its agents vote the Shares or other deposited securities as instructed. The HDR Depositary will only vote or attempt to vote as instructed. The HDR Depositary will not itself exercise any voting discretion. Furthermore, neither the HDR Depositary nor its agents are responsible for any failure to carry out any voting instructions, for the manner in which any vote is cast or for the effect of any vote.

There is no guarantee that HDR Holders will receive voting materials in time to instruct the HDR Depositary to vote and it is possible that HDR Holders, or persons who hold their HDSs through brokers, dealers or other third parties, will not have the opportunity to exercise a right to vote, although in practice our Company and the HDR Depositary will endeavour to make arrangements to ensure as far as practicable that all HDR Holders will be able to vote.

# **Reports and Other Communications**

# Will HDR Holders be able to view our reports?

Subject to such waivers and exemptions from compliance with the requirements of the Listing Rules as may be granted by the Stock Exchange to us, if we are required to send printed copies of any notices, reports, voting forms or other communications to HDR Holders under the Listing Rules or any other laws or regulations, we will make available printed copies thereof to the HDR Depositary, who will distribute the same to the HDR Holders. Any such documents or communication will also be made available for inspection at the offices of both the HDR Depositary and the Custodian listed in the section in this Listing Document headed "Directors, executive officers and parties involved in the Introduction".

### **Fees and Expenses**

# What are the fees and expenses?

The HDR Depositary may charge each person holding HDSs, including, without limitation, issuances against deposits of Shares; issuances in respect of share distributions, rights and other distributions; or issuances pursuant to a stock dividend or stock split declared by us; or pursuant to a merger, exchange of securities or any other transaction or event affecting the HDSs or deposited securities, and each person surrendering HDSs for withdrawal of deposited securities or whose Depositary Receipts are cancelled or reduced for any other reason, HK\$0.40, in accordance with the specific provisions of the Depositary Agreements, each HDS issued, delivered, reduced, cancelled or surrendered, as the case may be. The HDR Depositary may sell (by public or private sale) sufficient securities and property received in respect of share distributions, rights and/or other distribution prior to such deposit to pay such charge.

The following additional charges shall be incurred by the HDR Holders, by any party depositing or withdrawing Shares or by any party surrendering or receiving HDSs (including, without limitation, issuance pursuant to a stock dividend or stock split declared by us or an exchange of stock regarding the Depositary Receipts or the deposited securities or a distribution of HDSs), whichever is applicable:

- a fee of HK\$0.40 per HDS for any cash distribution made pursuant to the Depositary Agreements;
- a fee of HK\$2.50 per Depositary Receipt or Depositary Receipts for transfers of certificated or direct registration Depositary Receipts;

- a fee of HK\$0.40 per HDS per calendar year (or portion thereof) for services performed by the HDR Depositary in administering the Depositary Receipts (which fee may be charged on a periodic basis during each calendar year and shall be assessed against HDR Holders as of the record date or record dates set by the HDR Depositary during each calendar year and shall be payable in the manner described in the next succeeding provision);
- reimbursement of such fees, charges and expenses as are incurred by the HDR Depositary and/or any of the HDR Depositary's agents (including, without limitation, the Custodian, and expenses incurred on behalf of holders in connection with compliance with foreign exchange control regulations or any law or regulation relating to foreign investment) in connection with the servicing of the Shares or other deposited securities, the delivery of deposited securities or otherwise in connection with the HDR Depositary's or the Custodian's compliance with applicable law, rule or regulation (which charge shall be assessed on a proportionate basis against holders as of the record date or dates set by the HDR Depositary and shall be payable at the sole discretion of the HDR Depositary by billing such holders or by deducting such charge from one or more cash dividends or other cash distributions);
- a fee for the distribution of securities (or the sale of securities in connection with a
  distribution), such fee being in an amount equal to the fee for the execution and delivery
  of HDSs which would have been charged as a result of the deposit of such securities
  (treating all such securities as if they were Shares) but which securities or the net cash
  proceeds from the sale thereof are instead distributed by the HDR Depositary to those
  holders entitled thereto;
- stock transfer or other taxes and other governmental charges;
- cable, telex and facsimile transmission and delivery charges incurred at the request of HDR Holders in connection with the deposit or delivery of Shares;
- transfer or registration fees for the registration of transfer of deposited securities on any applicable register in connection with the deposit or withdrawal of deposited securities; and
- expenses of the HDR Depositary in connection with the conversion of foreign currency into HK Dollars,

each in accordance with the specific provisions of the Depositary Agreements.

We will pay all other charges and expenses of the HDR Depositary and any agent of the HDR Depositary (except the Custodian) pursuant to agreements from time to time between us and the HDR Depositary. The charges described above may be amended from time to time by agreement between us and the HDR Depositary.

HKSCC Nominees, as the nominee of CCASS Participants, shall not be liable for the payment or collection of any fees or charges.

# **Payment of Taxes**

The following summary contains a description of the principal Brazilian income tax consequences of the ownership and disposition of the Depositary Receipts. This discussion is of a general nature only and is not exhaustive of all possible Brazilian tax considerations applicable to an investment in the Depositary Receipts. Moreover the income or other tax consequences of acquiring, holding or disposing the Depositary Receipts will vary depending on the holder's particular circumstances, including the jurisdiction or jurisdictions in which the holder resides or carries on business. Accordingly, this summary is of a general nature only and is not intended to be legal or tax advice to any prospective holder of Depositary Receipts. Investors should consult

their own tax advisers for advice with respect to the tax consequences of an investment in Depositary Receipts based on their particular circumstances.

#### **Brazilian tax considerations**

The following discussion summarises the principal Brazilian tax consequences of the acquisition, ownership and disposition of Class A Preferred Shares, Common Shares or Depositary Receipts by a holder not deemed to be domiciled in Brazil for purposes of Brazilian taxation (a 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).

#### Shareholder distributions

Brazilian corporations, such as our Company, 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 withholding income tax if the distribution is paid by us from profits of periods beginning on or after 1 January 1996 (1) to the HDR Depositary in respect of our Class A Preferred Shares or Common Shares underlying the Depositary Receipts or (2) to a Non-Brazilian Holder in respect of our Class A Preferred Shares or Common Shares. Dividends paid from profits generated before 1 January 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 withholding income tax at the rate of 15%, except where:

- (1) the beneficiary is exempt from tax in Brazil, in which case the distribution will not be subject to withholding income tax;
- (2) the beneficiary is located in a jurisdiction that does not impose income tax or where the maximum income tax rate is lower than 20% (a Low Tax Jurisdiction) or where internal legislation imposes restrictions on the disclosure of the shareholding structure or ownership of the investment, in which case the applicable withholding income tax rate is 25%; or
- (3) the effective beneficiary is resident in Japan, in which case the applicable withholding income tax rate is 12.5%.

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 TJLP. 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 social contribution on net profits but before taking into account such payment of interest and the provision for corporate income tax) for the period in respect of which the payment is made and (2) 50% of the sum of retained earnings and profit reserves as at the first day 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, to the extent of the limits described above. The tax benefit to our Company in the case of a distribution by way of interest on shareholders' equity is a reduction in our Company's corporate tax charge by an amount equivalent to 34% of such distribution.

Taxation of capital gains.

Taxation of Non-Brazilian Holders on capital gains depends on the status of the holder as either:

- (1) not resident or domiciled in a Low Tax Jurisdiction or where internal legislation imposes restrictions on the disclosure of shareholding structure or the ownership of the investment and registered its investment in Brazil in accordance with Resolution No. 2,689 (a 2,689 Holder), or a HDR Holder; or
- (2) any other Non-Brazilian Holder.

Investors identified in item 1 are subject to favourable tax treatment, as described below.

According to Law No. 10,833, dated 29 December 2003, capital gains realised by a Non-Brazilian Holder from the disposition of "assets located in Brazil" are subject to taxation in Brazil.

Class A 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 whether the transaction is carried out with another Non-Brazilian resident or with a Brazilian resident.

There is some uncertainty as to whether Depositary Receipts qualify as "assets located in Brazil" for purposes of Law No. 10,833/03. Arguably, Depositary Receipts do not constitute assets located in Brazil and therefore the gains realised by a Non-Brazilian Holder on the disposition of Depositary Receipts to another Non-Brazilian resident should not be subject to income tax in Brazil. However, it cannot be guaranteed that the Brazilian courts will uphold this interpretation of the definition of "assets located in Brazil" in connection with the taxation of gains realised by a Non-Brazilian Holder on the disposition of Depositary Receipts. Consequently, gains on a disposition of Depositary Receipts 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.

Although there are grounds to sustain otherwise, the deposit of Class A Preferred Shares or Common Shares in exchange for Depositary Receipts may be subject to Brazilian income tax if the acquisition cost of the Class A Preferred Shares or Common Shares being deposited is lower than the average price of the Class A Preferred Shares or Common Shares (as the case may be), which is determined as either:

- (1) the average price per Class A Preferred Share or Common Share on BM&FBOVESPA in which the greatest number of such shares were sold on the day of deposit; or
- (2) if no Class A Preferred Shares or Common Shares were sold on that day, the average price on BM&FBOVESPA in which the greatest number of Class A Preferred Shares or Common Shares were sold in the 15 trading sessions immediately preceding such deposit.

The positive difference between the average price of the Class A Preferred Shares or Common Shares calculated as described above and their acquisition cost will be considered to be a capital gain subject to income tax in Brazil. In some circumstances, there are grounds to sustain that such taxation is not applicable with respect to any 2,689 Holder, provided he is not located in a Low Tax Jurisdiction.

The withdrawal of Depositary Receipts in exchange for Class A Preferred Shares or Common Shares is not subject to Brazilian income tax, subject to compliance with applicable regulations regarding the registration of the investment with the Brazilian Central Bank.

For the purpose of Brazilian taxation, the income tax rules on gains related to disposition of Class A 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 his investment with the Central Bank; and/or
- how the disposition is carried out, as described below.

The gain realised as a result of a transaction on a Brazilian stock, future and commodities exchange is the difference between: (i) the amount in Brazilian currency realised on the sale or disposition and (ii) the acquisition cost, without any adjustment for inflation, of the securities that are the subject of the transaction.

Any gain realised by a Non-Brazilian Holder on a sale or disposition of Class A Preferred Shares or Common Shares carried out on BM&FBOVESPA is:

- exempt from income tax where the Non-Brazilian Holder (i) is a 2,689 Holder; and (ii) is not located in a Low Tax Jurisdiction;
- subject to income tax at a rate of 15% where the Non-Brazilian Holder either (A) (i) is not a 2,689 Holder and (ii) is not resident or domiciled in a Low Tax Jurisdiction or (B) (i) is a 2,689 Holder and (ii) is resident or domiciled in a Low Tax Jurisdiction; or
- subject to income tax at a rate of 25% where the Non-Brazilian Holder (i) is not a 2,689 Holder and (ii) is resident or domiciled in a Low Tax Jurisdiction.

The sale or disposition of common shares carried out on BM&FBOVESPA is subject to withholding tax at the rate of 0.005% on the sale value. This withholding tax can be offset against the eventual income tax due on the capital gain. A 2,689 Holder that is not resident or domiciled in a Low Tax Jurisdiction is not required to withhold income tax.

Any gain realised by a Non-Brazilian Holder on a sale or disposition of Class A Preferred Shares or Common Shares that is not carried out on BM&FBOVESPA is subject to income tax at a 15% rate, except for gain realised by a resident in a Low Tax Jurisdiction, which is subject to income tax at the rate of 25%.

With respect to transactions arranged by a broker that are conducted on the Brazilian non-organised over-the-counter market 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 favourable treatment of 2,689 Holders will continue in the future.

In the case of a redemption of Class A Preferred Shares, Common Shares or Depositary Receipts or a capital reduction by a Brazilian corporation, the positive difference between the amount received by any Non-Brazilian Holder and the acquisition cost of the Class A Preferred Shares, Common Shares or Depositary Receipts being redeemed is treated as capital gain and is therefore generally subject to income tax at the rate of 15%, while the 25% rate applies to residents in a Low Tax Jurisdiction.

Any exercise of pre-emptive rights relating to our Class A Preferred Shares or Common Shares will not be subject to Brazilian taxation. Any gain realised by a Non-Brazilian Holder on the disposition of pre-emptive rights relating to Class A 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 Class A 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 an IOF/Exchange Tax, due on the conversion of Reais into foreign currency and on the conversion of foreign currency into Reais. Currently, for most foreign currency exchange transactions, the rate of IOF/Exchange is 0.38%.

Effective as of 20 October 2010 in respect of foreign exchange agreements entered into since 5 October, 2010, the inflow of resources into Brazil for the acquisition or subscription of common shares through public offerings in the Brazilian financial and capital markets by a Non-Brazilian Holder are subject to IOF/Exchange at a rate of 2% provided that the issuer company has registered its shares for trading on the stock exchange.

The outflow of resources from Brazil related to investments carried out by a Non-Brazilian Holder in the Brazilian financial and capital markets is currently subject to IOF/Exchange at a zero percent rate. In any case, the Brazilian Government may increase such rates at any time, up to 25%, with no retroactive effect.

## Transactions involving bonds and securities

Brazilian law imposes a tax on transactions involving bonds and securities, or an IOF/Bonds Tax, including those carried out on BM&FBOVESPA. The rate of IOF/Bonds Tax applicable to transactions involving public traded shares in Brazil is currently zero. However, 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. Transfer of shares traded on BM&FBOVESPA in order to back depositary receipts traded abroad are subject to IOF/Bonds Tax at a rate of 1.5% starting 19 November 2009.

#### Other Brazilian taxes

There are no Brazilian inheritance, gift or succession taxes applicable to the ownership, transfer or disposition of Class A Preferred Shares, Common Shares or the Depositary Receipts 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 Class A Preferred Shares or Common Shares or Depositary Receipts.

HDR Holders must pay any tax or other governmental charge payable by the Custodian or the HDR Depositary on any HDS or Depositary Receipt, deposited security or distribution. If an HDR Holder owes any tax or other governmental charge, the HDR Depositary may (i) deduct the amount thereof from any cash distributions, or (ii) sell deposited securities (by public or private sale) and deduct the amount owing from the net proceeds of such sale. In either case the HDR Holder remains liable for any shortfall. Additionally, if any tax or governmental charge is unpaid, the HDR Depositary may also refuse to effect any registration, registration of transfer, split-up or combination of deposited securities or withdrawal of deposited securities until such payment is made. If any tax or governmental charge is required to be withheld on any cash distribution, the HDR Depositary may deduct the amount required to be withheld from any cash distribution or, in the case of a non-cash distribution, sell the distributed property or securities (by public or private sale) to pay such taxes and distribute any remaining net proceeds to the HDR Holders entitled thereto.

By holding a Depositary Receipt or an interest therein, HDR Holders will be agreeing to indemnify us, the HDR Depositary, the Custodian and any of our or their respective directors, employees, agents and affiliates against, and hold each of them harmless from, any claims by any governmental authority with respect to taxes, additions to tax, penalties or interest arising out of any refund of taxes, reduced rate of withholding at source or other tax benefit obtained.

Currently, the dividends paid by Brazilian companies to their shareholders are exempt from taxes in Brazil. Such tax exemption, however, does not apply to the payment of interests on net equity, which are subject in Brazil to withholding income tax up to a 25% rate.

There is no guarantee that the tax exemption of the dividends will be maintained in the future and therefore no guarantee that the HDR Holders will receive dividends and distributions free from withholding taxes in Brazil.

## **Reclassifications, Recapitalisations and Mergers**

If we take certain actions that affect the deposited securities, including (i) any change in par value, split-up, consolidation, cancellation or other reclassification of deposited securities or (ii) any distributions not made to of HDR Holders or (iii) any recapitalisation, reorganisation, merger, consolidation, liquidation, receivership, bankruptcy or sale of all or substantially all of our assets, then the HDR Depositary may choose to:

- (1) amend the form of Depositary Receipt;
- (2) distribute additional or amended Depositary Receipts;
- (3) distribute cash, securities or other property it has received in connection with such actions;
- (4) sell any securities or property received and distribute the proceeds as cash; or
- (5) none of the above.

If the HDR Depositary does not choose any of the above options, any of the cash, securities or other property it receives will constitute part of the deposited securities and each HDS will then represent a proportionate interest in such property.

# Lost, Destroyed, Stolen or Mutilated Depositary Receipt Certificates

In the event that the certificate to any certificated Depositary Receipt is lost, destroyed, or stolen, unless the HDR Depositary has notice that such Depositary Receipt has been acquired by a bona fide purchaser, the HDR Depositary shall execute and deliver a new certificated Depositary Receipt or book-entry Depositary Receipt in lieu of and in substitution for such destroyed, lost or stolen certificated Depositary Receipt upon the HDR Holder thereof filing with the HDR Depositary a request for such execution and delivery and a sufficient indemnity bond and satisfying any other reasonable requirements imposed by the HDR Depositary. In the event that the certificate to any certificated Depositary Receipt is mutilated the HDR Depositary shall execute and deliver a new certificated or book-entry Depositary Receipt in exchange and substitution for any mutilated certificated Depositary Receipt upon cancellation thereof.

## TERMS OF THE DEPOSITARY AGREEMENTS

Each Depositary Agreement is required to be in a form acceptable to the Stock Exchange.

# **Appointment and Role**

Under the Depositary Agreements, the HDR Depositary is appointed to act on our behalf in accordance with its terms. The HDR Depositary's role is to issue the Depositary Receipts as our agent and to arrange for deposit of the HDSs which the Depositary Receipts represent.

#### **Amendment and Termination**

# How may the Depositary Agreements be amended?

Our Company and the HDR Depositary may only amend the terms of the Depositary Receipts and Depositary Agreements in accordance with their provisions, namely in respect of:

any amendment that imposes or increases any fees or charges payable under a single head of fee/charge mentioned in "Terms of Depositary Receipts — Fees and Expenses" above in respect of one Depositary Receipt (other than stock transfer or other taxes and other governmental charges, transfer or registration fees, cable, telex or facsimile transmission costs, delivery costs or other such expenses) by 25% or HK\$1.00 (whichever is the lesser increase) or less from the rate in effect at the time of proposed amendment shall become effective upon the expiry of 30 days' notice and HDR Holders continuing to hold HDRs shall be deemed to consent and agree to such amendment and to be bound by the relevant Depositary Agreement as amended;

## • any amendment that:

- imposes or increases such fees in respect of one Depositary Receipt by more than 25% or HK\$1.00 (whichever is the lesser increase) from the rate in effect at the time of proposed amendment; or
- in the sole opinion and absolute discretion (which shall be exercised with reasonable care) of our Company, will prejudice any substantial rights of the HDR Holders (including any amendment that relates to any matter set out in Rule 19B.16(a) to (t) of the Listing Rules),

the HDR Depositary shall provide HDR Holders with not less than 21 days' nor more than 60 days' notice of the proposed amendment and of HDR Holders' right to vote for or against such amendment, the record date for determining entitlement to vote, all necessary details regarding the procedures for voting and the method and date by which HDR Holders will be notified of the results, and any HDR Holder who does not vote (for whatever reason) in accordance with the terms and procedures set out in such amendment notice shall be taken to have abstained from voting. A proposal for any such amendment shall be approved by a majority of votes cast in favour, and votes must be cast in respect of HDRs held by at least three HDR Holders or, if there are fewer than three HDR Holders, by all HDR Holders who cast their vote.

We may agree with the HDR Depositary to amend either of the Depositary Agreements and the HDSs without the consent of the HDR Holders in circumstances other than those described above and such amendments shall become effective in accordance with the terms of any agreement between us and the HDR Depositary.

Notwithstanding the foregoing, if any governmental body or regulatory body should adopt new laws, rules or regulations which would require amendment or supplement of either Depositary Agreement or the form of Depositary Receipt to ensure compliance therewith, we and the HDR Depositary may amend or supplement the relevant Depositary Agreement and the Depositary Receipts at any time in accordance with such changed laws, rules or regulations, which amendment or supplement may take effect before a notice is given or within any other period of time as required for compliance. No amendment, however, will impair the right of HDR Holders to surrender their HDSs and receive the underlying securities, except in order to comply with mandatory provisions of applicable law.

## How may the Depositary Agreements be terminated?

The HDR Depositary may, and shall at our written direction, terminate the Depositary Agreements and the Depositary Receipts by mailing notice of such termination to the HDR Holders at least 30 days prior to the date fixed in such notice for such termination; provided, however, if the HDR Depositary shall have (i) resigned as HDR Depositary under the Depositary Agreements, notice of such termination by the HDR Depositary shall not be provided to registered holders unless a successor HDR Depositary shall not be operating under the Depositary Agreements within 90 days of the date of such resignation, and (ii) been removed as HDR Depositary under the Depositary Agreements, notice of such termination by the HDR Depositary shall not be provided to HDR Holders unless a successor HDR Depositary shall not be operating under the Depositary Agreements on the 90th day after our notice of removal was first provided to the HDR Depositary. After termination, the HDR Depositary's only responsibility will be (i) to deliver deposited securities to HDR Holders who surrender their Depositary Receipts, and (ii) to hold or sell distributions received on deposited securities. As soon as practicable after the expiration of six months from the termination date, the HDR Depositary will sell the deposited securities which remain and hold the net proceeds of such sales (as long as it may lawfully do so), without liability for interest, in trust for the HDR Holders who have not yet surrendered their Depositary Receipts. After making such sale, the HDR Depositary shall have no obligations except to account for such proceeds and other cash. After the termination date, we shall be discharged from all obligations under the Depositary Agreements, except for obligations to the HDR Depositary and its agents.

# How may the Custodian be replaced or removed?

The HDR Depositary reserves the right to add to, replace, discharge or remove the Custodian, after consultation with our Company to the extent practicable provided always that the HDR Depositary will give sufficient notice of any such action to enable our Company to discharge its prior announcement obligation in accordance with the Listing Rules.

The Custodian may resign from its duties hereunder by serving at least 30 days written notice to the HDR Depositary. The Custodian ceasing to act hereunder as custodian shall deliver, upon the instruction of the HDR Depositary, all Deposited Securities held by it to a custodian continuing to act.

Notwithstanding the foregoing, if the removal of the Custodian is made by the HDR Depositary for the protection of HDR Holders (including, but not limited to, where (i) the Custodian has committed a material breach under the custodian agreement and the breach cannot reasonably be remedied or (ii) the Custodian has become insolvent, or there are legal restrictions for the appointment of the Custodian and the HDR Depositary or our Company could reasonably be expected to incur a loss or liability if the Custodian is not removed), the HDR Depositary is entitled to remove the Custodian immediately subject to our Company having had an opportunity to discharge its prior announcement obligation in accordance with the Listing Rules.

# How may the HDR Depositary be replaced or removed?

The HDR Depositary may resign by written notice to our Company, such resignation to take effect upon the appointment of a successor HDR Depositary and its acceptance of such appointment as provided in the Depositary Agreements. The HDR Depositary may at any time be removed by our Company by prior written notice and such termination shall take effect upon the time when a successor depositary has been appointed and has accepted such appointment as provided in the Depositary Agreements.

## Limitations on Obligations and Liability to HDR Holders

Limits on our obligations and the obligations of the HDR Depositary; limits on liability to HDR Holders and holders of HDSs

Prior to the issue, registration, registration of transfer, split-up, combination, or cancellation of any Depositary Receipts, or the delivery of any distribution in respect thereof, and from time to time, we or the HDR Depositary or the Custodian may require:

- payment with respect thereto of (i) any stamp duty, stock transfer or other tax or other governmental charge, (ii) any stock transfer or registration fees in effect for the registration of transfers of Shares or other deposited securities upon any applicable register and (iii) any applicable fees and expenses described in the Depositary Agreements;
- the production of proof satisfactory to it of (i) the identity of any signatory and genuineness of any signature and (ii) such other information, including without limitation, information as to citizenship, residence, exchange control approval, beneficial ownership of any securities, compliance with applicable law, regulations, provisions of or governing deposited securities and terms of the Depositary Agreements and the Depositary Receipts, as it may deem necessary or proper; and
- compliance with such regulations as the HDR Depositary may establish consistent with the Depositary Agreements.

The issuance of Depositary Receipts, the acceptance of deposits of Shares, the registration, registration of transfer, split-up or combination of Depositary Receipts or the withdrawal of Shares, may be suspended, generally or in particular instances, when the Depositary Receipt register or any register for deposited securities is closed or when any such action is deemed advisable by the HDR Depositary; provided that the ability to withdraw Shares may only be limited under the following circumstances (i) temporary delays caused by closing transfer books of the HDR Depositary or our transfer books or the deposit of Shares in connection with voting at a Shareholders' meeting, or the payment of dividends, (ii) the payment of fees, taxes, and similar charges, and (iii) compliance with any laws or governmental regulations relating to Depositary Receipts or to the withdrawal of deposited securities.

The Depositary Agreements expressly limit the obligations and liability of the HDR Depositary, ourselves and our respective agents. Neither we nor the HDR Depositary nor any such agent will be liable if:

- any present or future law, rule, regulation, fiat, order or decree of the United States, Brazil, Hong Kong or any other country, or of any governmental or regulatory authority or securities exchange or market or automated quotation system, the provisions of or governing any deposited securities, any present or future provision of our charter, any act of God, war, terrorism or other circumstance beyond our, the HDR Depositary's or our respective agents' control shall prevent, delay or subject to any civil or criminal penalty any act which the Depositary Agreements or the Depositary Receipts provide shall be done or performed by us, the HDR Depositary or our respective agents (including, without limitation, voting);
- it exercises or fails to exercise discretion under the Depositary Agreements or the Depositary Receipts;
- it performs its obligations under the Depositary Agreements and Depositary Receipts without negligence or bad faith;
- it takes any action or refrains from taking any action in reliance upon the advice of or information from legal counsel, accountants, any person presenting shares for deposit, any

registered holder of Depositary Receipts, or any other person believed by it to be competent to give such advice or information; or

• it relies upon any written notice, request, direction or other document believed by it to be genuine and to have been signed or presented by the proper party or parties.

Neither the HDR Depositary nor its agents have any obligation to appear in, prosecute or defend any action, suit or other proceeding in respect of any deposited securities or the Depositary Receipts. We and our agents shall only be obligated to appear in, prosecute or defend any action, suit or other proceeding in respect of any deposited securities or the Depositary Receipts, which in our opinion may involve us in expense or liability, unless indemnity satisfactory to us against all expense (including fees and disbursements of counsel) and liability is furnished as often as may be required. The HDR Depositary and its agents may fully respond to any and all demands or requests for information maintained by or on its behalf in connection with the Depositary Agreements, any HDR Holder or Holders, any Depositary Receipts or otherwise related to the Depositary Agreements or Depositary Receipts to the extent such information is requested or required by or pursuant to any lawful authority, including without limitation laws, rules, regulations, administrative or judicial process, banking, securities or other regulators. The HDR Depositary shall not be liable for the acts or omissions made by any securities depositary, clearing agency or settlement system in connection with or arising out of book-entry settlement of deposited securities or otherwise. Furthermore, the HDR Depositary shall not be responsible for, and shall incur no liability in connection with or arising from, the insolvency of the Custodian, if not a branch or affiliate of JPMorgan Chase Bank, N.A.

Additionally, none of us, the HDR Depositary or the Custodian shall be liable for the failure by any registered holder of Depositary Receipts or beneficial owner therein to obtain the benefits of credits on the basis of non-US tax paid against such holder's or beneficial owner's income tax liability. Neither we nor the HDR Depositary shall incur any liability for any tax consequences that may be incurred by holders or beneficial owners on account of their ownership of Depositary Receipts or HDSs.

Neither the HDR Depositary nor its agents will be responsible for any failure to carry out any instructions to vote any of the deposited securities, for the manner in which any such vote is cast or for the effect of any such vote. Neither the HDR Depositary nor any of its agents shall be liable to HDR Holders or beneficial owners of interests in HDSs for any indirect, special, punitive or consequential damages (including, without limitation, lost profits) of any form incurred by any person or entity, whether or not foreseeable and regardless of the type of action in which such a claim may be brought.

The HDR Depositary may own and deal in any class of our securities and in HDSs.

## Disclosure of Interest in HDSs

To the extent that the provisions of or governing any deposited securities may require disclosure of or impose limits on beneficial or other ownership of deposited securities, other shares and other securities and may provide for blocking transfer, voting or other rights to enforce such disclosure or limits, HDR Holders must comply with all such disclosure requirements and ownership limitations and with any reasonable instructions we or the HDR Depositary may provide in respect thereof. We reserve the right to instruct HDR Holders to deliver their HDSs for cancellation and withdrawal of the deposited securities so as to permit us to deal with them directly as a holder of Shares and, by holding an HDS or an interest therein, they agree to comply with such instructions.

# **Books of HDR Depositary**

The HDR Depositary or its agent will maintain in Hong Kong a register for the registration of issue, transfer, combination, split-up and cancellation of Depositary Receipts. HDR Holders may

inspect such records at the HDR Registrar's office at all reasonable times, which office shall be open for such inspection by HDR Holders and our Company for the purpose of communicating with other holders in the interest of the business of our Company or a matter relating to the Depositary Agreements. Such register may be closed from time to time, when deemed expedient by the HDR Depositary.

The HDR Depositary will maintain facilities for the delivery and receipt of Depositary Receipts.

#### Pre-release of HDSs

In its capacity as HDR Depositary, the HDR Depositary shall not lend Shares or HDSs; provided, however, that the HDR Depositary may (i) issue HDSs prior to the receipt of Shares and (ii) deliver Shares prior to the receipt of HDSs for withdrawal of deposited securities, including HDSs which were issued under (i) above but for which Shares may not have been received (each such transaction a "pre-release"). The HDR Depositary may receive HDSs in lieu of Shares under (i) above (which HDSs will promptly be canceled by the HDR Depositary upon receipt by the HDR Depositary) and receive Shares in lieu of HDSs under (ii) above. Each such pre-release will be subject to a written agreement whereby the person or entity (the applicant) to whom HDSs or Shares are to be delivered (a) represents that at the time of the pre-release the applicant or its customer owns the Shares or HDSs that are to be delivered by the applicant under such pre-release, (b) agrees to indicate the HDR Depositary as owner of such Shares or HDSs in its records and to hold such Shares or HDSs in trust for the HDR Depositary until such Shares or HDSs are delivered to the HDR Depositary or the Custodian, (c) unconditionally guarantees to deliver to the HDR Depositary or the Custodian, as applicable, such Shares or HDSs, and (d) agrees to any additional restrictions or requirements that the HDR Depositary deems appropriate. Each such pre-release will be at all times fully collateralised with cash, US government securities or such other collateral as the HDR Depositary deems appropriate, terminable by the HDR Depositary on not more than five business days' notice and subject to such further indemnities and credit regulations as the HDR Depositary deems appropriate. The HDR Depositary will normally limit the number of HDSs and Shares involved in such pre-release at any one time to 20% of the HDSs outstanding (without giving effect to HDSs outstanding under (i) above), provided, however, that the HDR Depositary reserves the right to change or disregard such limit from time to time as it deems appropriate. The HDR Depositary may also set limits with respect to the number of HDSs and Shares involved in pre-release with any one person on a case-by-case basis as it deems appropriate. The HDR Depositary may retain for its own account any compensation received by it in conjunction with the foregoing. Collateral provided pursuant to (b) above, but not the earnings thereon, shall be held for the benefit of HDR Holders (other than the applicant).

# **Deeming provision**

In the Depositary Agreements, each registered holder of Depositary Receipts and each person holding an interest in HDSs, upon acceptance of any HDSs (or any interest therein) issued in accordance with the terms and conditions of the Depositary Agreements will be deemed for all purposes to:

- be a party to and bound by the terms of the Depositary Agreements and the applicable Depositary Receipt or Depositary Receipts, and
- appoint the HDR Depositary as its attorney-in-fact, with full power to delegate, to act on its behalf and to take any and all actions contemplated in the Depositary Agreements and the applicable Depositary Receipt or Depositary Receipts, to adopt any and all procedures necessary to comply with applicable laws and to take such action as the HDR Depositary in its sole discretion may deem necessary or appropriate to carry out the purposes of the Depositary Agreements and the applicable Depositary Receipt and Depositary Receipts, the

taking of such actions to be the conclusive determinant of the necessity and appropriateness thereof.

## **Governing Law and Jurisdiction**

The Depositary Agreements and the Depositary Receipts shall be governed by and construed in accordance with the laws of Hong Kong. In the Depositary Agreements, we have submitted to the jurisdiction of the courts of Hong Kong. The Depositary Agreements do not contain any provisions which preclude any party from electing to submit to the jurisdiction of the courts of Hong Kong for the resolution of any disputes or claims arising from the Depositary Agreements.

## THE RIGHTS ACCRUED TO THE HDR HOLDERS PURSUANT TO DEEDS POLL

Our Company and the HDR Depositary have executed Deeds Poll in favour of the HDR Holders. Pursuant to these Deeds Poll, if our Company is in breach of any obligation towards HDR Holders imposed on it in either Depositary Agreement, any HDR Holder may enforce the relevant provisions of the relevant Depositary Agreement (as if it is a party to that Depositary Agreement and in the capacity of the HDR Depositary in respect of the number of Class A Preferred HDSs or (as the case may be) Common HDSs to which the HDRs held by the relevant HDR Holder relate) against our Company.

Our Company is further required to indemnify the HDR Holder for any direct loss arising from or incurred as a result of the breach (set out in the preceding paragraph) by our Company of any provisions of the Depositary Agreements imposing upon our Company any obligation towards HDR Holders.

Each HDR Holder shall be able to enforce against our Company and the HDR Depositary the rights to which it is entitled under the relevant Depositary Agreement pursuant to the provisions of the relevant Depositary Agreement.

# **DEALINGS AND SETTLEMENT**

# Issuance and cancellation of certificated Depositary Receipts

The HDR Registrar shall issue a certificated Depositary Receipt upon receipt of the issuance instruction from the HDR Depositary on the first Business Day after receipt of that instruction. The certificated Depositary Receipt will be ready for collection at the office of the HDR Registrar on the second Business Day thereafter.

For certificated Depositary Receipt cancellation, investors are required to present the physical certificate together with the cancellation instruction and duly executed transfer form stamped by the Hong Kong stamp office to the HDR Registrars' counter during its business hours.

# Depositary Receipts will be eligible for admission into CCASS

Subject to the granting of secondary listing of, and permission to deal in, the Depositary Receipts on the Stock Exchange and our Company's compliance with the admission requirements of HKSCC, the Depositary Receipts will be accepted as eligible securities by HKSCC for deposit, clearance and settlement in CCASS with effect from the date of commencement of dealings in the Depositary Receipts on the Stock Exchange or any other date as HKSCC chooses. Settlement of transactions between participants of the Stock Exchange is required to take place in CCASS on the second Business Day after any trading day. All activities under CCASS are subject to the CCASS Rules. All necessary arrangements have been made for the Depositary Receipts to be admitted into CCASS.

## **Commencement of dealings in the Depositary Receipts**

The Depositary Receipts are expected to be issued and dealings in the Depositary Receipts on the Stock Exchange are expected to commence at 9:30 a.m. on 8 December 2010.

## INSPECTION OF THE DEPOSITARY AGREEMENTS AND THE RELATED DOCUMENTS

Copies of the latest Depositary Agreements and the provisions of or governing the HDSs and any written communications from our Company will be available for inspection by the HDR Holders after the Introduction at the offices of our Company and at the office of the HDR Registrar and will be available on our Company's website and the website of the Stock Exchange.

Each of the HDR Holders will be provided with the proxy card with web link(s) to proxy materials or other relevant documents from time to time.

## CONVERSION OF COMMON SHARES, CLASS A PREFERRED SHARES AND ADRS TO HDRS

The Shareholders may convert their Common Shares and their Class A Preferred Shares to HDRs and the ADR Holders may convert their ADRs to HDRs in accordance with the procedures summarized below after the date of the publication of this Listing Document. You should consult with your broker or other professional adviser or contact the HDR Depositary at DR\_Settlements@jpmorgan.com for detailed advice on any such conversion. Relevant information of the conversion of Common Shares, Class A Preferred Shares and ADRs to HDRs will be available at the HDR Depositary website at <a href="www.adr.com">www.adr.com</a>. For the avoidance of doubt, the Common Depositary Receipts are not interchangeable with Class A Preferred Depositary Receipts.

# Conversion of Common Shares and Class A Preferred Shares to HDRs

Shareholders who are interested in converting their Common Shares and/or Class A Preferred Shares listed on BM&FBOVESPA or traded on LATIBEX of the Madrid Stock Exchange into HDRs may from time to time after the publication of this Listing Document so convert by giving conversion instructions via the local broker(s) to the Custodian. Upon receiving the confirmation from the Custodian that the Common Shares and/or the Class A Preferred Shares have been transferred from BM&FBOVESPA or LABITEX (as the case may be) to it, the HDR Depositary will also instruct the HDR Registrar to issue the relevant HDR certificate(s) to such Shareholders. Subject to the granting of listing of, and permission to deal in, the HDRs on the Main Board of the Stock Exchange by the Listing Committee, it is expected that the relevant HDRs will be registered on the HDR Register within three Business Days upon receiving the conversion instruction and the return of such share certificate. The corresponding HDR certificates will be despatched to the address of the HDR Holder specified on the HDR Register or be available for collection from the offices of the HDR Registrar or will be deposited into CCASS in accordance with the CCASS Rules (as the case may be) as instructed by such Shareholders.

The HDR Depositary and the HDR Registrar expect to complete the conversion of Common Shares and Class A Preferred Shares to HDRs within three Business Days. Upon completion of the conversion of the Common Shares and/or Class A Preferred Shares into HDRs, the names and address(es) of such HDR Holders will appear on the HDR Register.

Once any HDR has been registered to the HDR Register, the HDR certificates may be deposited in CCASS in accordance with CCASS Rules. Whether such HDR will be immediately credited to the account of the CCASS participant for electronic book-entry settlement in CCASS will also be subject to the CCASS Rules.

## Conversion of ADRs to HDRs

ADR Holders who are interested in converting their ADRs listed on NYSE or traded on NYSE Euronext Paris may from time to time after the publication of this Listing Document by giving conversion instructions cancel their ADRs and convert the cancelled ADRs into HDRs. Upon receiving such instructions from an ADR Holder through the DTC system, the ADR Depositary will arrange for the cancellation of the ADRs and the HDR Registrar will, upon the instructions of the HDR Depositary after completion of the cancellation of such ADRs, arrange for the issuance of the HDR certificate(s) to such ADR Holders. ADR Holders who wish to convert their ADRs to HDRs using this process will need to complete a request for conversion form. The form, which contains details of how it should be returned, is available from the ADR Depositary's website at www.adr.com.

Subject to the granting of listing of, and permission to deal in, the HDRs on the Main Board of the Stock Exchange by the Listing Committee, it is expected that the relevant HDRs will be registered on the HDR Register within three Business Days upon receiving a duly completed request for conversion form and the return of such ADR certificates (if applicable). The corresponding HDR certificate(s) will be despatched to the address of the HDR Holder specified on the HDR Register or be available for collection from the offices of the HDR Registrar or deposited into CCASS in accordance with the CCASS Rules (as the case may be) as instructed by such ADR Holders.

The HDR Depositary and the HDR Registrar expect to complete the conversion of ADRs to HDRs within three Business Days. Upon completion of the conversion of the ADRs into HDRs, the name(s) and address(es) of such HDR Holders will appear on the HDR Register.

Once any HDR has been registered to the HDR Register, the HDR certificates may be deposited in CCASS in accordance with CCASS Rules. Whether such HDR will be immediately credited to the account of the CCASS participant for electronic book-entry settlement in CCASS will also be subject to the CCASS Rules.

The request for conversion form will set out the terms and conditions relating to the conversion. In particular, by giving the conversion instruction to the Custodian by the Shareholders and/or signing and lodging a request for conversion form the ADR Holder agrees that, in the event the Introduction does not proceed, our Company is authorised to arrange for (1) the Custodian to transfer the respective Common Shares and/or Class A Preferred Shares to the existing Shareholders who have applied for conversion to HDRs and (2) the ADR Depositary to re-issue the respective ADRs to the existing ADR Holders who have applied for conversion to HDRs.

## Fees and expenses for conversion from the Listing Date

The following table sets forth the conversion fees payable to the HDR Registrar for the conversion of the Common Shares, Class A Preferred Shares and/or the ADRs to HDRs collected on behalf of the ADR Depositary and the HDR Depositary from the Listing Date:

	Conversion of Common Shares and Class A Preferred Shares to HDRs	Conversion of ADRs to HDRs
Depositary fees		
Maximum issuance and cancellation fee	HK\$0.4 / HDR	HK\$0.4 / HDR

The issuance fee in respect of a conversion into HDRs of Common Shares, Class A Preferred Shares and ADRs during the two-month period from the date of publication of this Listing Document to 1 February 2011 (both dates inclusive) will be waived by the ADR Depositary and the HDR Depositary.

# CANCELLATION OF HDRS AND CONVERSION OF HDRS TO COMMON SHARES, CLASS A PREFERRED SHARES AND ADRS

Any HDR Holder whose HDRs are registered on the HDR Register will be able to obtain a request for conversion form from the HDR Registrar for a conversion of the HDRs to Common Shares, Class A Preferred Shares and/or ADRs (as the case may be) from 8 December 2010. On the return of such form to the HDR Registrar, duly completed, together with the corresponding HDR certificates and payment for the relevant charges, the HDR Registrar will arrange for the conversion of such HDRs to Common Shares, Class A Preferred Shares and/or ADRs (as the case may be). HDRs held in CCASS must be withdrawn from CCASS in accordance with CCASS Rules and registered onto the HDR Register before the conversion.

Where a duly completed request for conversion form is received by the HDR Registrar together with the corresponding HDR certificate prior to 12:00 noon (Hong Kong time) on a Business Day, the HDR Registrar expect to complete (1) the conversion to Common Shares and/or Class A Preferred Shares within three Business Days or (2) the conversion to ADRs within three Business Days. This service will be available to the HDR Holder concerned. Once an HDR has been converted to Common Shares and/or Class A Preferred Shares, it may be deposited into such broker account(s) as may be instructed by such HDR Holders to CBLC, and the ADRs may be deposited into the DTC system.

The cancellation of the HDRs and the conversion of the HDRs into Common Shares, Class A Preferred Shares and/or the ADRs will be subject to the following conversion fees payable to the HDR Registrar collected on behalf of the ADR Depositary and the HDR Depositary:

Conversion of HDRs to Common Shares and Class A Preferred Shares

Conversion of HDRs to ADRs

## **Depositary fees**

Maximum issuance and

cancellation fee . . . . . . . . . HK\$0.4 / HDR

 HK\$0.4 / HDR

HK\$155 / transaction

## LIQUIDITY ARRANGEMENTS

## Intended liquidity arrangements during the Designated Period

Prior to and upon the Introduction, the Designated Dealer will seek to undertake certain trading activities in the HDRs in the circumstances described below. Certain trades envisaged to be carried out by the Designated Dealer during the Designated Period may constitute covered shortselling (or be deemed to constitute short-selling) under applicable Hong Kong laws and regulations. In this regard, the Sponsor has applied for on behalf of the Designated Dealer and the Stock Exchange has granted an exemption in order to permit the Designated Dealer to conduct the proposed trading activities described below which may constitute (or may be deemed to constitute) short-selling of securities during the Continuous Trading Period in circumstances where the HDRs are not "Designated Securities" as defined in the Stock Exchange Rules and in order to ensure compliance with the Stock Exchange Rules which restrict short sales to only Designated Securities. In addition, the Stock Exchange has waived the restriction on short selling during the Pre-opening Session (as defined in the Stock Exchange Rules from 9:30 a.m. to the commencement of the morning trading session at 10:00 a.m.) to allow the Designated Dealer to effect such trading activities in the HDRs during the daily Pre-opening Session for the duration of the Designated Period. The Sponsor has also applied for on behalf of the Designated Dealer and has obtained from the Stock Exchange an exemption from the regulation that a short sale shall not be made on the Stock Exchange below the best current ask price except where the Designated Security is a Market Making Security (as defined in the Stock Exchange Rules) traded under the Pilot Program (as defined

in the Stock Exchange Rules) approved by the SFC to be excluded from the application of this regulation (the above exemptions collectively the **Exemptions**.)

No person other than the Designated Dealer is permitted to enter into short sales of HDRs on the Stock Exchange during the Designated Period or thereafter unless the HDRs are designated for short selling by the Stock Exchange. Upon the expiry of the Designated Period, the Designated Dealer will not be able to engage in further trading activities described below in respect of the HDRs on the Stock Exchange unless the HDRs are designated for short selling by the Stock Exchange.

Such activities and Exemptions will facilitate the Designated Dealers in conducting trading activities in respect of the HDRs on the Stock Exchange during the Designated Period with a view to seeking to provide liquidity to meet demand for HDRs upon and in the period immediately following the Introduction:

- 1. The Designated Dealer will enter into borrowing arrangements with the existing ADR Holders to borrow the ADRs listed on NYSE representing Common Shares and Class A Preferred Shares which are deposited with the ADR Depositary.
  - Prior to the Introduction and during the Designated Period, the Designated Dealer will seek to issue HDRs converted from such borrowed ADRs which the Designed Dealer will make available for sale to the Hong Kong market at the prevailing market price to meet demand if supply from other market sources proves to be insufficient to maintain an orderly market. These arrangements will terminate and cease upon the expiry of the Designated Period.
- 2. To close out their borrowed positions, the Designated Dealer may purchase ADRs from the NYSE or remove back any unutilised HDRs by cancelling such unutilized HDRs and the reissuance of the corresponding ADRs to the lending ADR Holders. If necessary, the Designated Dealer may repeat the process or alternatively may purchase ADRs from the NYSE, in order to provide additional liquidity to meet demand for HDRs in the Hong Kong market during the Designated Period.
- 3. The Designated Dealer will set up a designated broker identity number solely for the purposes of carrying out covered short-sale (or deemed short-sales) and other trades (including purchases and sales of HDRs) in Hong Kong pursuant to those arrangements, in order to assist in identification and thereby seek to enhance the transparency of such trades on the Hong Kong market. Once the designated broker identity number is available and in any event not later than the Business Day before the first day of the Introduction, the Designated Dealer will notify our Company of the same. Such information will then be posted on the website of our Company, and disclosed by way of an announcement on the Stock Exchange. It is expected that this announcement will be made on or around Friday, 3 December 2010. Any change in such designated broker identity number will be disclosed as soon as practicable using the same channels as described above.
- 4. The Designated Dealer has entered and will enter into such arrangements (including the trading activities described above and any other purchases and sales of HDRs) on a voluntary basis in good faith and on arm's length terms with a view to contributing towards liquidity to meet demand for HDRs in Hong Kong.

It is emphasised that (1) other existing Shareholders who may have converted part or all of their Common Shares and/or Class A Preferred Shares to HDRs or (2) other existing ADR Holders who may have converted ADRs to HDRs in accordance with the procedure as set out in the section headed "Conversion of Common Shares, Class A Preferred Shares and ADRs to HDRs" above on or after the date of publication of this Listing Document can also carry out arbitrage trades in the HDRs. Such activities will depend on, amongst other things, the extent of price differentials between the stock

exchanges, and the number of market participants who elect to enter into such arbitrage arrangements.

The trading activities described above of the Designated Dealer and any persons acting for it will be entered into in accordance with all applicable laws, rules and regulations. The liquidity arrangements being implemented in connection with the Introduction are not equivalent to the price stabilisation activities which may be undertaken in connection with an initial public offering. In addition, the Designated Dealer is not acting as Market Maker or Security Market Maker (as those terms are defined in the Stock Exchange Rules). In particular, the Designated Dealer does not intend to seek to use buying of HDRs in Hong Kong to meet excess supply in the market.

It should be noted that the Designated Dealer and any persons acting for them may, in connection with the proposed liquidity activities, maintain a long position in the HDRs. There is no certainty regarding the extent or time or the period for which the Designated Dealer and any persons acting for it may maintain such a long position in the HDRs. The liquidation of any such long position by the Designated Dealer or any person acting for them may have an adverse impact on the market price of the HDRs.

# Spread of holdings of HDRs

It is expected that the following measures and factors will assist in creating and/or improving the spread of holdings of HDRs available for trading on the Stock Exchange following the Introduction:

- Existing holders of Common Shares and/or Class A Preferred Shares and existing ADR Holders may at their discretion convert their Common Shares and/or Class A Preferred Shares to HDRs and from ADRs to HDRs upon or after the Introduction, as described above in the section headed "Conversion of Common Shares, Class A Preferred Shares and ADRs to HDRs" above. The issuance fee in respect of conversion of Common Shares, Class A Preferred Shares and ADRs during the period from the date of publication of this Listing Document to 1 February 2011 (both dates inclusive) will be waived by the ADR Depositary and the HDR Depositary to incentivise existing Shareholders to convert their Common Shares and/or Class A Preferred Shares to HDRs and ADR Holders to convert their ADRs to HDRs. Details of such arrangements are set out above in the section headed "Conversion of Common Shares, Class A Preferred Shares and ADRs to HDRs". To the extent that existing Shareholders elect to convert their Common Shares and/or Class A Preferred Shares to HDRs and existing ADR Holders elect to convert their ADRs to HDRs before or shortly after the Introduction, such HDRs may help contribute to the general liquidity of the HDRs on the Hong Kong market.
- As indicated in the section "Liquidity Arrangements Intended liquidity arrangements
  during the Designated Period" above, it is expected that existing ADR Holders will lend and
  make available to the Designated Dealer ADRs and the Designated Dealer and/or persons
  acting on its behalf may also purchase ADRs on NYSE which, in each case, will be used
  principally to settle trades carried out by the Designated Dealers in Hong Kong.
- In conducting stock borrowing and trading activities in circumstances as described above in the section headed "Liquidity Arrangements — Intended liquidity arrangements during the Designated Period", the Designated Dealer are effectively acting as a conduit to transfer some of the trading liquidity of the ADRs traded on NYSE to the Hong Kong market.

## Benefits of the liquidity arrangements

It is believed that the liquidity arrangements will benefit the Introduction in the following ways:

- by having a mechanism in place to promote and facilitate liquidity to meet demand for HDRs on the Hong Kong market upon and during the initial period after the Introduction. During the Designated Period, the Designated Dealers will, at their discretion and to the extent they consider appropriate, seek to make HDRs available for sale to the Hong Kong market, to try to meet demand if supply from other market sources proves to be insufficient to maintain an orderly market; and
- by seeking to minimise the risk of a disorderly market developing from significant demand for HDRs not fulfilled in Hong Kong upon and during the initial period after the Introduction.

## Disclosure of the liquidity arrangements

In order to enhance transparency of the activities carried out under the liquidity arrangements described above, various measures to provide information to the market and potential investors will be undertaken as described in the section "Investor Awareness" below.

Further, our Company will, as soon as practicable and in any event before the opening of trading hours on the Business Day immediately before the first day of the Introduction, release an announcement on the Stock Exchange to inform the investing public of the following information as at the latest practicable date prior to such announcement: the number of HDRs in respect of which the Custodian has received instructions from the existing ADR Holders for the conversion of ADRs to HDRs and the total number of HDRs which have been registered on the HDR Register.

In respect of the trades (including covered short-sales and purchases or sales of HDRs) to be carried out by the Designated Dealer on the Stock Exchange, the Designated Dealer will set up a designated broker identity number solely for the purposes of carrying out such trades in Hong Kong, in order to assist in identification and thereby enhance transparency of the trades on the Hong Kong market. Information relating to such designated broker identity number will be disclosed as set out in the section headed "Liquidity Arrangements — Intended liquidity arrangements during the Designated Period" above.

#### **INVESTOR AWARENESS**

## Arrangements involving our Company and the Designated Dealer

Prior to the Introduction, our Company and the Designated Dealer have been cooperating to inform the investor community in Brazil, Hong Kong, the United States, France and Spain of the processes for conversion of the Common Shares, Class A Preferred Shares and ADRs to HDRs and to inform the investor community in Hong Kong of the liquidity arrangements as disclosed in this Listing Document, and any developments or changes thereto. After the Introduction has taken place, our Company and the Designated Dealer may continue to take measures to educate the public. One or more of the following measures may be taken to enhance the transparency of our Company, the conversion process and the liquidity arrangements:

- non-deal roadshow meetings will be conducted to brief potential investors of the liquidity arrangements and the Introduction;
- there will be media briefings and press interviews to inform potential investors of the liquidity arrangements and the Introduction;

- a daily announcement will be released on the Stock Exchange's website disclosing the
  previous day closing prices of the Common Shares and Class A Preferred Shares traded on
  BM&FBOVESPA and (in the form of ADRs) traded on NYSE on three consecutive business
  days in Brazil and the United States, respectively, prior to the Listing Date;
- a public announcement on the conversion procedures as summarised in the sections "Conversion of the Common Shares, Class A Preferred Shares and the ADRs into HDRs" and "Liquidity Arrangements" respectively above has been posted on our Company's website;
- briefings in relation to the liquidity arrangements will be conducted for, amongst others, private bank divisions, a syndicate of brokerage houses and other institutional investors;
- copies of this Listing Document will be available for information purposes only during normal business hours from 2 December 2010 to 15 December 2010 (both days inclusive) at the reception counter of the Sponsor at Ground Floor Reception, Chater House, 8 Connaught Road, Central, Hong Kong and the office of our Hong Kong legal advisers, Norton Rose Hong Kong, at 38/F Jardine House, 1 Connaught Place, Central, Hong Kong. In addition, electronic copies of this Listing Document will be disseminated through the websites of our Company, the Stock Exchange, BM&FBOVESPA, CVM, SEC and LATIBEX from 2 December 2010.

## Other sources of information

Relevant information, including the previous day closing prices of the Common Shares and Class A Preferred Shares in the form traded on BM&FBOVESPA and NYSE, will be disclosed through our Company's website at www.vale.com.

Real-time or near real-time trading information in respect of:

- the Common Shares and the Class A Preferred Shares can presently be obtained through the website of BM&FBOVESPA at www.bmfbovespa.com.br;
- the ADRs can presently be obtained through the website of NYSE and NYSE Euronext Paris at <u>www.nyse.com</u>; and
- the Common Shares, the Class A Preferred Shares and the ADRs can be obtained through the Company's website at <a href="https://www.vale.com">www.vale.com</a>, or through service providers that provide such facilities at investors' own expense.

Real-time or near real-time trading information in respect of the HDRs can be obtained through the Company's website at <a href="www.vale.com">www.vale.com</a>, or through service providers that provide such facilities at investors' own expense.

Certain of the information and statistics set out in this industry overview have been extracted or derived from various publicly available sources. We believe that the sources of this information are appropriate sources for such information. We have no reason to believe that such information is false or misleading or that any fact has been omitted that would render such information false or misleading. No independent verification has been carried out on the information and statistics contained in such publicly available sources. While we have exercised reasonable care in extracting and reproducing such information and statistics, we make no representation as to the accuracy of such information and statistics, which may not be consistent with each other or with other information, or that more updated information or statistics have not been prepared or released. You should not place undue reliance on any such information and statistics contained in this section.

We present information in this section in respect of iron ore and iron ore pellets, nickel and copper, being the three commodities (other than aluminium, our principal interests in which we have agreed to transfer) which currently account for the greatest proportionate contribution to our total operating revenues and fertilizer nutrients and coal, being the two commodities which we intend to focus on developing in the near term, together with information on mining industry competition, long-term mining industry trends and exchange rate fluctuations.

#### I. IRON ORE AND IRON ORE PELLETS

#### Overview

Iron ore is the primary component of the world's production of iron and steel with essentially all iron ore produced worldwide consumed in steelmaking. Iron ore demand, and therefore pricing, depends largely on the global steel industry.

There are two basic manufacturing processes that account for the vast majority of modern steelmaking:

Integrated Process: The integrated process is the blast furnace/basic oxygen furnace (or BOF) process, which currently accounts for approximately 66% of world steel production. Lump ore and processed fines are fed directly into a coke-fed blast furnace, together with coke and limestone, to produce pig iron. Pig iron, together with some scrap steel, is then integrated with oxygen in a basic oxygen furnace to produce crude steel.

*EAF Process:* According to the World Steel Association, the electric arc furnace (or EAF) process currently accounts for approximately 25% of world steel production. Scrap steel is melted in an electric arc furnace and then alloyed in a ladle furnace to produce crude steel.

There are three major iron ore products: fines, lumps and pellets.

- Fines: Fines usually measure less than 4.75 millimetres (less than 5/26 inch). A sintering plant will heat layers of fines until partial melting occurs and individual ore particles fuse together resulting in a higher iron grade feedstock (usually around 62%+) and up to two inches in diameter. Sintering plants are usually located in proximity to the blast furnace.
- Lumps: Iron ore lumps can go directly into a blast furnace, but can potentially lead to decrepitation. Lumps generally contain 62%+ iron content and act as a substitute for pellets and do not require any additional grinding or processing. Lumps usually measure over 4.75 millimetres (over 5/26 inch). Lumps have historically traded at a higher price than that of fines, reflecting its use a direct feed to blast furnace.
- Pellets: Iron ore pellets improve the productivity of blast furnace. Pellets are formed as lower content iron ores are crushed and ground into a powder so the waste material (gangue) can be removed. The remaining iron-rich powder (concentrate) is then rolled into

balls and fired in a furnace to produce marble-sized pellets that typically contain 60 to 65% iron. Pellets usually measure from 9.55 to 16 millimetres (up to 5/8 inch). Pellets are typically priced at a 60 to 70% premium over fines.

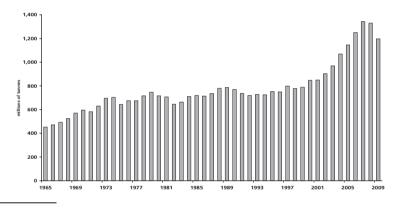
After being melted in a blast furnace with coke and other aggregates like limestone, the resulting molten iron goes directly into a BOF where it is eventually converted into steel by removing most of the remaining carbon. The molten iron can also be poured into moulds and sold as pig iron to third parties including EAF producers like mini mills.

## **Demand**

Demand for iron ore is dictated by the global steel industry, which consumes substantially all of the iron ore produced worldwide.

Global steel production rose at an average rate of 2.3% per annum from 1965 to 2009, as shown in the chart below. However, the most intense growth has been happening since 2000, when global steel output grew at 4.4% per annum, mostly due to the significant rise in steel production in China. Consequently, iron ore consumption has also been largely driven by China's economic growth, where the ongoing industrialisation and urbanisation processes have seen significant increase in the consumption of large volumes of raw materials, specifically steel.

# World steel production (Mt)



Source: ABARE

The world steel industry produced 1,219.7 million metric tons of crude steel worldwide in 2009, according to World Steel. The largest producing country was China, accounting for 47% of total world production.

Crudo	ctool	producti	on (N/I+)
Crude	steer	broducti	on uvit

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
China	127	151	182	222	280	356	423	490	500	568
EU 27	187	188	188	193	202	196	207	210	198	139
Japan	106	103	108	111	113	112	116	120	119	88
Russia	_59	_59	_60	61	66	66	<u>71</u>	72	69	60
World	848	850	904	970	1,069	<u>1,147</u>	1,251	1,351	1,329	1,220

Source: World Steel Association

Demand for crude steel is primarily driven by the automotive and construction industries, both of which are affected by the general state of the world economy. Therefore, demand for steel depends ultimately on global economic conditions. From 2002 to 2008, the global economy

experienced one of the largest and strongest expansion cycles in history. In particular, global industrial production, the main driver for steel production, showed steady growth with a CAGR of 2.9% between 2002 and 2008. After the global economic downturn in 2009, the global economy has begun to show signs of recovery. We believe the two factors underlying the recovery — financial conditions and the inventory cycle — will continue to sustain growth in the near future while the monetary and fiscal stimuli gradually diminish.

With the global economy likely to return to growth from 2010, the Australian Bureau of Agricultural and Resource Economics (ABARE) forecasts world crude steel production between 2009 and 2014 to rise by a CAGR of 6.8%, as the following chart shows. Regional growth rates are expected to vary in line with regional economic growth. Emerging Asian crude steel production is expected to grow at a higher rate as a result of high rates of investment in industry, transportation, infrastructure, construction and an overall improvement in standards of living. In particular, Chinese crude steel production is forecasted to grow at a higher 5-year CAGR of 7.6% to 819 Mt in 2014, according to ABARE. We believe such robust steel production and, therefore, global iron ore demand growth, would directly benefit the major iron ore producers.

## Crude steel production forecasts (Mt)

	2010E	2011E	2012E	2013E	2014E
China	613	659	709	762	819
EU 27	149	158	165	170	175
United States	70	77	84	89	90
Brazil	30	34	37	41	45
Russia	62	64	67	69	72
World	1,336	1,436	1,529	1,616	1,698

Source: ABARE

# Supply

Worldwide, iron ore is mined in about 50 countries. The five largest producing countries are China, Australia, Brazil, India and Russia, accounting for approximately 80% of total world production. The following table presents iron ore production from 2000 to 2009 by the five largest producers worldwide:

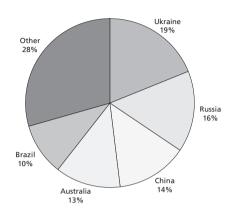
## World iron ore production by country (Mt)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
China	105	102	109	208	214	285	356	399	321	234
Australia	176	181	187	212	235	258	275	299	350	394
Brazil	209	210	225	246	271	292	319	337	346	300
India	75	79	86	99	121	143	181	207	223	257
Russia	87	_83	84	92	97	95	103	105	100	91
World	<u>959</u>	930	987	<u>1,159</u>	1,250	1,394	1,572	1,699	1,693	1,587

Source: United Nations Conference on Trade and Development (UNCTAD)

The majority of the global iron ore reserves are concentrated in five countries: Ukraine, Russia, China, Australia, and Brazil, which together account for 71% of total reserves.

## Global crude ore reserve base 2009 – 160 billion metric tons



Source: United States Geological Survey (USGS)

## Competition

The top 10 iron ore producers in the world are listed below. The three major companies in the global iron ore industry are Vale, Rio Tinto Ltd. and BHP Billiton plc. In terms of production, these three producers accounted for 30% of global iron ore production in 2009, showing a high degree of supply concentration. In 2009, Vale's production was 238 Mt, making us as the largest iron ore producer in the world with a market share of 12.4%.

World top 10 iron ore producers — 2009 (Mt)

Rank	Company	Mt prod.	Market share
1	Vale <sup>(1)</sup>	238	12.4%
2	Rio Tinto Ltd.	204	10.6%
3	BHP Billiton plc	137	7.1%
4	Metalloinvest	48	2.5%
5	Kumba/Anglo American	44	2.3%
6	ArcelorMittal	39	2.0%
7	FMG	34	1.8%
8	Metinvest	30	1.6%
9	Cliffs NR	28	1.4%
10	NMDC	24	<u>1.2</u> %
Word total		<u>1,924</u>	<u>100.0</u> %

<sup>(1)</sup> The Directors believe the different figures for our iron ore production provided by CRU as compared to those disclosed in the section of this Listing Document headed "Business — Mining and Exploration Operations" are mainly due to different statistical methodology adopted by CRU to that utilised for preparing those figures.

Source: CRU

## Seaborne iron ore market

The majority of world iron ore production is sold through seaborne export-import trade. Steel mills in China, Japan, South Korea, Taiwan and Western Europe depend on this seaborne flow due to

a lack of sufficient domestic iron ore supply. Iron ore seaborne trade volumes increased rapidly from 507 Mt in 2000 to 955 Mt in 2009, driven mainly by China, whose imports have risen significantly from 70 Mt in 2000 to 628 Mt in 2009, accounting for almost all the increase in world seaborne iron ore trade since 2000.

China's dependence on imported iron ore has increased significantly. Imports accounted for approximately 60% of its total consumption in 2009. This was primarily the result of sound growth in domestic demand combined with limited domestic supply. In addition, high coke prices also helped elevate the value of high-quality imported ores as high productivity is required by the steel mills.

On the supply side, Australia and Brazil are the two major exporters of iron ore. Together, they accounted for approximately 66% of the world market in 2009, as shown in the table below. Typically, Australia supplies the Asian market, while Brazil supplies both the Asian and Western European market.

Looking forward, China is expected to continue to drive the seaborne iron ore market in the near term, as it continues to embark on its process of industrialisation and urbanisation. According to ABARE (as shown in the table below), total iron ore imports in China will reach 815 Mt in 2014, accounting for approximately 63% of total world seaborne imports.

Iron ore	imports	and	exports	bv	country	(Mt)
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imports/exports	. <u>646</u>	<u>717</u>	<u>763</u>	823	889	<u>955</u>	<u>1,019</u>	<u>1,103</u>	<u>1,186</u>	<u>1,244</u>	1,284
Total world											
Canada	23	_28	_28	_28	_28	<u>31</u>	29	28	27	27	28
South Africa	. 25	27	26	30	33	45	41	44	48	51	54
India	. 63	81	89	94	106	115	94	87	81	74	66
Brazil	. 201	223	248	274	274	266	305	370	399	427	444
Australia	. 221	239	247	267	309	363	397	422	486	523	540
Exports											
France	. 21	_20	_20	_20	_18	NA	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Germany	. 46	42	45	46	45	NA	NA	NA	NA	NA	NA
South Korea	. 44	44	44	46	50	44	53	57	60	63	65
Japan	. 135	132	134	139	140	105	122	135	141	142	144
China	. 208	275	326	383	444	628	634	685	738	776	815
Imports	2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E

Source: UNCTAD and ABARE

The competition among producers and exporters in the seaborne iron ore market is primarily dictated by quality and freight costs. A secondary competitive factor is the demand for particular iron ore products, which also tends to vary among different parts of the world. For example, steel mills in North America are generally configured to process predominantly iron pellets, while blast furnace steel makers in Asia are configured to process predominantly sinter fines and lump ore. However, the ability to provide iron ore products tailored to individual customers' specifications — such as high-grade, low-impurity blending ores, pellets — and the metallurgical properties of particular ores allow producers to increase their presence in more distant markets.

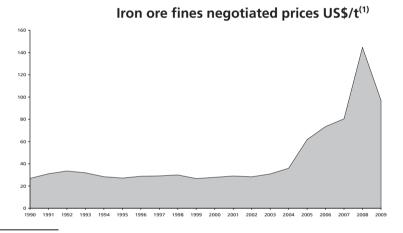
## Pricing mechanism and prices

A benchmark pricing mechanism has prevailed for many years, under which suppliers and customers negotiated annual price references that, once agreed, would be adopted by the whole

market. Nevertheless, since 2003, China's impressive demand growth has been a major factor driving the rising importance of the iron ore spot market. In 2009, it reached an estimated share of 40% of global seaborne trade.

More recently, a new pricing mechanism has been adopted which establishes a quarterly iron ore price based on a three-month average of price indices for the period ending one month before the onset of the new quarter. While retaining flexibility, this quarterly pricing mechanism has an important key feature - the ability to account for product quality differences. More valuable products now command a transparent, publicly traded price premium over the more basic products, whilst previously premia had to be individually negotiated with customers by reference to the annual benchmark price. Accordingly, lump ores, blast furnace and direct reduction pellets generally enjoy a price premium over iron ore fines. As prices under the new pricing mechanism are now based on a landed equivalent basis, they will also recognise differences in geographical distance between suppliers and customers.

The following chart shows the iron ore contract prices from 1990 to 2009. From 2004 to 2008, iron ore prices went up by more than 200%, reflecting strong growth driven mainly by demand from China. After a price decline due to the world economic downturn in 2009, the iron ore spot prices have recovered strongly on the back of robust demand recovery since mid-2009. We believe the iron ore market will remain undersupplied for an extended period of time.



(1) Negotiated Japanese fiscal year hematite ores, FOB Source: ABARE

## II. NICKEL

## Overview

Nickel has a diversified usage base. Its main application is in stainless steel production, which accounts for approximately 65% of total nickel demand. Stainless steel constitutes a group of corrosion-resistant steel that contains at least 10% chromium and other alloying elements such as nickel and manganese. Their main applications are in the process industry, in catering and in the household and transport sectors.

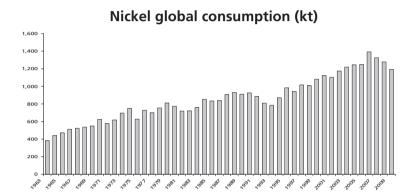
Plating is another important first-use application of nickel. It is basically an electrolytic deposition of a nickel layer onto a substrate to provide resistance to corrosion and/or a decorative finish. Plating is used in the automotive, sanitary, household electronics and batteries industries.

Nickel resources occur in two distinct economically extractable ore forms: sulphide ores and lateritic ores. Nickel sulphides are generally located in deep deposits of massive size, requiring underground mining. The average nickel grade of known sulphide ores is approximately 0.5%.

Nickel laterites occur predominately in the surface level, having originated from ground water movements, which makes it easier for open mining. This also results in great variability in thickness, grade and mineralogy. The average nickel grade of known laterite ores is approximately 1.2%.

#### Demand

Global consumption reached 1,193 million metric tons in 2009, down by 6.7% from 2008 amid the global economic downturn. However, in 2010 the demand for nickel has recovered well, driven by strong demand for nickel in industrial applications, such as stainless steel and superalloys.



Source: ABARE

Nickel consumption pattern varies between countries and regions. As shown in the table below, China has been the main driver for global nickel demand. Between 2001 and 2009, Chinese nickel consumption grew rapidly at an average rate of 23.3% per annum to 360 kt in 2008. In contrast, Europe, North America and Japan have experienced continuous declines in primary nickel consumption. As a result of the strong demand growth from China, its share in total global nickel consumption rose significantly from 7.5% in 2000 to 28.2% in 2008.

## Refined nickel consumption by country (kt)

	2001	2002	2003	2004	2005	2006	2007	2008
China	83	94	125	150	190	255	330	360
Japan	162	191	193	193	173	183	169	158
United States	129	121	118	129	136	145	135	127
Germany	110	107	100	100	96	106	97	91
South Korea	75	83	98	103	99	93	63	56
World	<u>1,104</u>	<u>1,175</u>	1,219	1,246	1,248	1,392	1,326	1,278

Source: ABARE

According to ABARE, nickel consumption is projected to grow steadily by approximately 6.9% a year to around 1.7 million metric tons by 2014. This growth is mainly attributable to the increase of industrial production in emerging economies, where strong economic growth is expected to result in increased construction activities and consumption, driving demand for stainless steel and, therefore, demand for nickel. In particular, China is expected to remain the largest contributor of demand growth for nickel in the medium term. Meanwhile, India is also projected to become increasingly important for stainless steel production, supporting an approximate 40% increase in

nickel consumption over the outlook period to 2014 when compared with 2009 consumption according to the table below.

# World refined nickel consumption (kt)

	2009	2010E	2011E	2012E	2013E	2014E
Total	1,193	1,317	1,447	1,532	1,620	1,667
Year-on-year % change	(6.7)%	10.4%	9.9%	5.9%	5.7%	2.9%

Source: ABARE

# Supply

Almost 67% of total global nickel production in 2008 was concentrated in five countries: Russia, Canada, Australia, Indonesia and New Caledonia (France), as shown in the table below. In terms of reserves, almost 62% of total global nickel reserves at the end of 2008 were located in three countries: Australia, New Caledonia and Russia.

# Nickel primary production by geography (kt)

	2001	2002	2003	2004	2005	2006	2007	2008
Russia	235	235	240	264	280	286	288	268
Canada	194	189	163	187	198	234	255	260
Australia	196	188	191	187	189	185	185	199
Indonesia	102	122	144	143	150	150	188	180
New Caledonia (France)	118	100	112	118	112	103	125	103
World total	1,225	1,248	1,264	1,327	1,388	1,486	<u>1,595</u>	<u>1,509</u>

Source: ABARE

## Nickel Reserves (at the end of 2008) (kt)

	Total	Share of total
Australia	26,000	28.9%
New Caledonia (France)	7,100	19.0%
Russia	6,600	13.9%
Cuba	-	9.2%
Canada	4,900	<u>7.1%</u>
World	70,000	100.0%

Source: USGS

We believe the high level of nickel prices is expected to further encourage primary and refined nickel producers to increase production. According to ABARE, there is an estimated 465 Mt of primary nickel production expected to become available from 2010 to 2014. Much of this production is expected to come from laterite ore deposits. However, significant costs associated with project development and production may hamper laterite projects to meet ramp-up and capacity targets.

# World primary nickel production (Mt)

	2009	2010E	2011E	2012E	2013E	
Mine production	1,302	1,405	1,515	1,630	1,725	1,767

Source: ABARE

Refined nickel production is forecast to follow increases in primary nickel mine production, with producers developing integrated projects including both mines and refineries, or negotiating agreements with existing refineries to expand capacity. According to ABARE, refined nickel production is projected to grow at an average rate of approximately 5% per year over the medium term to reach 1.7 Mt by 2015.

## Competition

The top 10 nickel producers in the world are listed below. In 2009, Vale's production was 181 kt, giving us a third-place market share of 13.8%. Apart from us, the largest suppliers in the nickel industry (each with their own integrated facilities, including nickel mining, processing, refining and marketing operations) are Mining and Metallurgical Company Norilsk Nickel, Aneka Tambang, Jinchuan Nonferrous Metals Corporation, BHP Billiton plc and Xstrata plc.

World top 10 finished primary nickel producers — 2009 (kt)

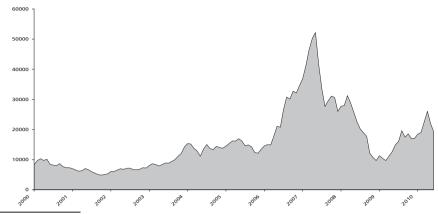
Rank	Company	Production (kt)	Market share
1	Norilsk	253	19.3%
2	Aneka Tambang	214	16.3%
3	Vale <sup>(1)</sup>	181	13.8%
4	BHP Billiton plc	173	13.2%
5	Jinchuan <sup>.</sup>	62	4.7%
6	Eramet	52	4.0%
7	Cubaniquel	48	3.7%
8	Xstrata plc	47	3.5%
9	Minara Resources	33	2.5%
10	Nickel Asia	33	2.5%
World total		1,313	100.0%

<sup>(1)</sup> Finished nickel processed in Vale's facilities using feeds purchased from unrelated parties have not been included. Source: CRU

## **Prices**

Nickel is traded on LME and the prices of its products are generally referenced to the LME prices. Nickel prices are usually very volatile: prices rose from US\$9,696 per ton in March 2009 to over US\$17,000 per ton at the end of 2009. For the year of 2009, prices averaged at US\$14,655 per ton, representing a 31% decline from 2008. According to ABARE, nickel spot prices are forecast to increase by 26% to an average of US\$18,400 per ton in 2010, in line with an expected recovery in world economic and industrial production growth.

LME spot nickel prices – US\$ per ton



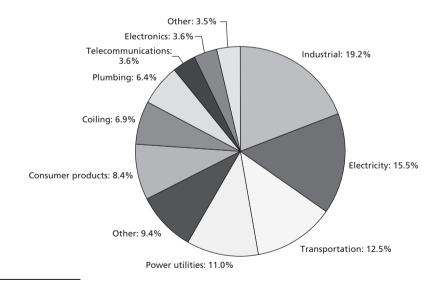
Source: LME

# III. COPPER

## Overview

Copper is the third most utilised metal in the world, followed by iron and aluminium. Copper's chemical, physical and aesthetic properties make it a primary material used in a wide range of industries, including automotive and other durable consumer goods (for example, fine wire, magnet wire and certain specialty brass mill products), as well as construction (for example, tubing), electrical products and transmission (for example, wire), and general industrial (for example, wire rod and other milled brass). A breakdown by major end-uses of copper is shown in the chart below.

Copper: major uses by end uses (2008)



Source: ABARE

Intermediate products of copper metallurgy that can be traded, such as black copper, blister copper and copper anodes, are characterized by their different stages of refinement, as described below:

- Copper concentrates an intermediate mine product, where ore mined is processed to create a bulk concentrate with copper content (grade) typically ranging between 30% and 35% by volume. It is sold to smelters which further process and refine the material into blister or cathode.
- Blister or anode copper depending upon the smelter technology employed, blister or anode copper may be the final smelter product, requiring an additional stage of refining to produce copper cathode.
- Copper cathode cathode is copper metal refined to 99.9% purity and is the copper product quoted by LME and other major commodities exchanges generally acceptable to manufacturers. It is sold directly to mills or foundries.

#### **Demand**

Copper consumption has been growing since 2000 at an average annual rate of 2.2% to reach 18.1 Mt in 2008. Global copper demand is driven mainly by China, who accounted for approximately 28% of total world consumption in 2008, followed by the United States, Germany, Japan and South Korea. The following table shows the main copper consuming countries from 2000 to 2008.

Refined Copper: Top 5 consuming countries (kt)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
China	1,928	2,307	2,737	3,084	3,364	3,656	3,614	4,863	5,134
United States	3,025	2,619	2,364	2,290	2,410	2,257	2,096	2,123	2,123
Germany	1,307	1,120	1,067	1,010	1,100	1,115	1,398	1,392	1,398
Japan	1,349	1,145	1,164	1,202	1,279	1,229	1,282	1,252	1,184
South Korea	862	849	936	901	940	868	828	856	815
World Total	15,191	14,686	15,037	15,315	16,671	16,639	16,974	18,109	18,102

Source: ABARE

With a wide range of end-use markets, copper consumption is closely linked to economic growth. As a result of the recent economic expansion in China and India, copper consumption of those two countries increased by 166% and 114% between 2000 and 2008, respectively. According to ABARE, global copper consumption is expected to grow at an average annual rate of approximately 5% for the next five years, as shown in the table below.

## Refined Copper: Forecast of world consumption (kt)

	2009	2010e	2011e	2012e	2013e	2014e
Consumption	18,367	18,650	19,367	20,242	21,188	22,328

Source: ABARE

## Supply

Supplies of refined copper depend on raw materials, smelting and refining capacity and also on stock availability. The largest refined copper producing countries in the world are China and Chile, which together accounted for approximately 37% of total world production in 2008. Other important producers are Japan, the United States and Russia. World total copper production has

been steadily growing at an average rate of 2.4% per year since 2001 to almost 18.5 Mt in 2008, as shown in the table below.

Refined Copper: Top 5 producing countries (kt)

	2001	2002	2003	2004	2005	2006	2007	2008
China	1,523	1,632	1,836	2,199	2,600	3,003	3,499	3,779
Chile	2,882	2,850	2,902	2,837	2,824	2,811	2,937	3,060
Japan	1,426	1,401	1,430	1,380	1,395	1,532	1,577	1,540
United States	1,800	1,512	1,310	1,310	1,260	1,250	1,226	1,280
Russia	888	861	<u>855</u>	909	968	959	923	913
World Total	15,675	15,336	15,221	15,828	16,610	17,343	18,029	18,484

Source: ABARE

Major seaborne trade of copper originates from the Americas (including Chile, Peru and Canada), with China as its main destination. In 2008, China and Chile represented approximately 22% and 38% of world total imports and exports, respectively.

According to United States Government Services (**USGS**), global copper reserves are estimated to be 540 Mt as at the end of 2009, 30% of which are located in Chile. Other countries with large copper reserves include Indonesia, the United States, Mexico and Peru. Together with Chile, these five countries account for more than 60% of total global copper reserves, making copper a geographically concentrated metal.

## Copper Reserves (at the end of 2009) (kt)

	Total	total
Chile	160,000	29.6%
Peru	63,000	11.7%
Mexico	38,000	7.0%
United States	35,000	6.5%
Indonesia	31,000	5.7%
World Total	540,000	100.0%

Source: USGS

Driven by the strong and sustained demand growth from emerging countries, we believe global copper production will continue to grow. According to ABARE, copper production is expected to grow at an average annual rate of approximately 5% for the next five years and reach 22.5 Mt by 2014, as shown in the table below.

## Refined Copper: Forecast of world production (kt)

	2009	<u>2010e</u>	<u>2011e</u>	<u>2012e</u>	2013e	2014e
Consumption	18,765	18,846	<u>19,311</u>	20,226	21,359	22,516

Source: ABARE

#### **Prices**

Copper is sold in an active global marketplace and traded on commodity exchanges, such as LME and NYMEX. Copper prices are affected by many factors, including actual and expected global macroeconomic conditions, supply and demand levels, availability and cost of substitutes, inventory

levels, investments made by commodity funds and others and actions of participants in the commodity markets.

Copper spot prices experienced a major increase between 2004 and 2008, as shown in the chart below, reaching the peak of US\$8,655 per ton in April 2008, after which a sharp decline took place at the onset of the global economic crisis, and prices returned to a level of around US\$3,106 per ton in January 2009. In the first six months of 2010, copper prices averaged US\$7,094 per ton, which was approximately 33% higher than the 2009 average of US\$5,337 per ton. This increase in copper prices was mainly due to the ongoing economic recovery in and strong demand from China.

#### 10000 9000 8000 7000 6000 5000 4000 3000 2000 1000 0 2003 2005 2006 2003 2004 2004 2005 2006 2007 2007

Copper Spot Prices (LME Cash, US\$ per ton)

Source: LME.

## IV. FERTILIZER NUTRIENTS

## Overview

There are a total of 16 nutrients necessary for plant growth. Nitrogen (N), phosphorus (P) and potassium (K) are called the "primary nutrients" or "macronutrients", since they are most essential to plant growth:

- Nitrogen is necessary for the production of amino acids (proteins), chlorophyll, enzymes and nucleic acids (genetic materials). Additionally, nitrogen improves crop yield.
- Phosphorus is important for energy transfer, storage reactions (electrons are moved by biochemical reactions involving phosphorous compounds) and nucleic acids. Phosphorus speeds up crop growth and yields.
- Potassium controls turgidity of cells, helps transport sugars and starches, and enables protein synthesis and activates enzymes. Potassium improves taste, colour and disease and drought resistance of plants.

Of the three macronutrients, nitrogen must be reapplied every year (through clay particles or residual metal in the soil, for example) and is thus susceptible to leaching or washout. Application of phosphorus and potassium would depend on the quantity of nutrients left in the soil.

The vast majority of phosphate fertilizers are derived from phosphoric acid, which is produced by the conversion of insoluble phosphate rock with the addition of sulphuric acid. The most common phosphate fertilizers are:

• Diammonium phosphates (DAP) and monoammonium phosphates (MAP), which are produced by reacting phosphoric acid with ammonia.

Triple superphosphates (TSP) and single superphosphates (SSP), which are produced by the
action of sulphuric acid or phosphoric acid on phosphate rock, respectively.

Potash refers to various potassium containing salts, such as muriate of potash (KCl) or potassium sulphate (K2SO4). Potash can be extracted by using conventional shaft mining, continuous mining, which extracts ore directly from the vein or solution mining, which involves pumping hot water into the ore, dissolving the salts and pumping back the brine for further processing. The main product is the high-grade potassium chloride (60 to 62% K20).

## **Demand**

Demand for fertilizers grew steadily at a CAGR of 3.2% between 2004 and 2007. China, the United States, India and Brazil are the most important consumers of fertilizers, representing approximately 61% of total global consumption in 2007, according to United Nation's Food and Agriculture Organization (FAO). China is the world's largest consumer, accounting for approximately 26% of total global consumption in 2007.

# Total fertilizer consumption<sup>(1)</sup> (Mt)

	2004	2005	2006	2007	2007 share
China	40.4	43.6	50.4	46.6	25.9%
United States	27.8	28.5	25.2	29.2	16.3%
India	18.4	20.3	21.7	22.6	12.6%
Brazil	10.3	8.3	8.6	11.3	6.3%
Canada	2.5	2.8	3.6	4.7	2.6%
World	163.3	<u>165.4</u>	170.3	<u>179.5</u>	100.0%

(1) N, P2O5, K2O Source: FAO

Demand for fertilizers is driven by global agricultural production, which is a function of food demand and is driven mainly by population growth, age distribution, economic development and dietary preferences. Rising population and declining arable land will continue to drive fertilizer application to increase yield and productivity. Rapid growth in per capita income in emerging economies is changing diet behavior towards an increasing intake of proteins that ultimately contributes to create additional demand for grains and fertilizer use. In addition, biofuel has emerged as an alternative source of energy to reduce world reliance on fossil fuel, being the main source of climate-changing greenhouse gases. The cultivation of sugar cane, corn and palm, being the main crops used for the production of biofuels, involves intensive use of fertilizers. We believe the rising global demand for food and biofuels will be key to the continued growth in demand for fertilizers.

## Supply

China is the largest producer of fertilizers in the world and accounted for approximately 28% of the total global production in 2007. Other important producers are the United States and India, who accounted for approximately 10% and 9% of total global production in 2007, respectively.

# Total fertilizer production<sup>(1)</sup> (Mt)

	2004	2005	2006	2007	2007 share
China	40.8	43.0	50.0	50.0	28.5%
United States	20.5	19.9	17.9	18.2	10.4%
India	15.2	15.3	13.1	15.5	8.8%
Canada	13.7	11.5	12.8	15.2	8.7%
Russia	12.4	13.1	13.0	14.0	8.0%
World	165.0	167.2	169.5	175.6	100.0%

(1) N, P2O5, K2O Source: FAO

Canada, Russia and Belarus account for just over two-thirds of world potash production capacity and more than 80% of estimated reserves. Due to the geographic concentration of potash resources, the high level of investment required for production and the long period of time required for a project to mature, it is unlikely that other regions will emerge as major potash producers in the near future. Compared to potash, phosphate is more widely available, with China, the United States and Morocco, the three largest producers, together accounting for two-thirds of world production. All major phosphate exporters are located in the northern region of Africa (Morocco, Algeria and Tunisia). Morocco alone accounts for more than 40% of world exports.

## Brazilian fertilizer market

Brazil is one of the largest agri-business markets in the world due to its high production and consumption of grains and biofuels. It is the fourth largest consumer of fertilizers in the world and also one of the largest importers of phosphates, potash, urea and phosphoric acid. Brazil imports 90% of its potash needs (6.8 Mt) from Canadian, Russian and German producers, and also imports 49% of its total phosphate nutrient needs in the form of both phosphate fertilizer products and phosphate rock. Given its abundant supply of water and arable land and hence, the significant potential for growth in agricultural production, we believe Brazil is expected to play a key role in the global agri-business market going forward.

## **Prices**

Price negotiations for fertilizers are mainly held on a spot basis, while some large importers such as China and India often sign annual contracts. Seasonality is an important factor for price determination throughout the year, since agricultural production in each region depends on climatic conditions.

## V. COAL

## Overview

Coal is the most abundant fossil fuel in the world. It is present in over 70 countries and its reserves are estimated at 826 billion metric tons as at the end of 2009.

Coal can be classified into four main categories, based on the carbon content, heating value, and other characteristics: lignite (or "brown coal"), sub-bituminous, bituminous coal and anthracite. Thermal and metallurgical coals are two types of bituminous coal, which is a soft, intermediate grade coal.

Total world coal reserves are mainly concentrated in the United States, Russia and China, as shown in the table below. However, China has a relatively shorter reserve life (the length of time that the remaining reserves would last if production were to continue at the previous year's rate) than the other major countries.

## Total Coal Reserves at the end of 2009 (Mt)

	Total	Share of total	Reserve life years
United States	238,308	28.9%	229
Russia	157,010	19.0%	498
China	114,500	13.9%	45
Australia	76,200	9.2%	195
India	58,600	7.1%	122
World	826,001	100.0%	<u>130</u>

Source: Survey of Energy Resources, World Energy Council

Due to its relative abundance, ease of recovery and low cost, thermal coal accounted for approximately 29% of world primary energy supply in 2009, making it the second most important fuel after oil, according to the 2010 BP Statistical Review. The main use of thermal coal is as fuel for steam electric power generation. According to the International Energy Agency (IEA), thermal coal accounted for 42% of fuel used for total electricity generation worldwide in 2007 and that proportion is forecast to increase to 44% by 2030.

Metallurgical coal is a high-quality, high carbon content, and very black type of bituminous coal used to make coke, which is the main fuel for the blast furnace steel production process, in which iron ore is turned into metal. Coke, which is nearly 100% carbon, is also necessary for the production of steel, which requires carbon for reduction.

## **Demand**

Thermal coal demand is closely related to electricity consumption, which is driven by global economic and population growth, particularly in emerging economies. World total consumption of thermal coal grew at a steady pace at a CAGR of 5.6% from 2000 to reach 5 billion tons in 2008. China and India, together, accounted for approximately 80% of the increase in world consumption during this period, and their aggregate share in total consumption rose from 43% in 2000 to 56% in 2008.

Metallurgical coal demand is driven mainly by steel production, which is strongly linked to growth in industrial output, particularly in emerging economies. Total global consumption of metallurgical coal grew, reaching a level of 814 Mt, according to the Coal Industry Advisory Board. According to ABARE, demand for metallurgical coal is expected to remain strong in the medium term, mainly driven by higher steel production in the OECD economies and strong growth of imports in the key emerging economies with high levels of steel consumption.

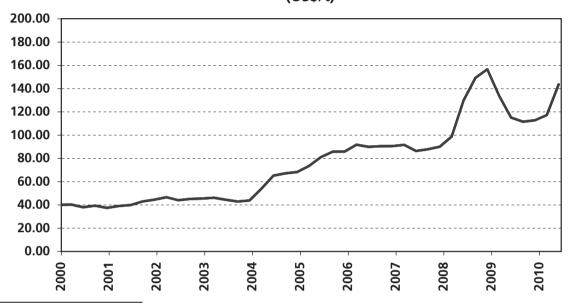
# Supply

According to IEA, the largest thermal coal producing countries in the world are China and the United States, who together accounted for approximately 66% of total world production in 2008. Total thermal coal production increased steadily at a CAGR of 6.0% from 2000 to almost 5 billion tons in 2008. China has been the key driver in the increase in world production, with its output expanding at a CAGR of 9.8% during this period.

## **Prices**

Coal is commonly traded by contracts, especially in the Japanese market, which is supplied mainly by Australia. Contract prices are set annually according to the Japanese fiscal year. In recent years, coal spot trading has been growing steadily, becoming relatively more important. The following chart shows metallurgical coal contract prices in the period 2000 to 2010:

# Average Price of US Metallurgical Coal Exports<sup>(1)</sup> (US\$/t)



(1) based on the free alongside ship value of US exports worldwide Source: US Energy Information

## VI. MINING INDUSTRY COMPETITION

In general, the global mining industry is highly competitive. Competition is primarily based on price, quality, range of products, reliability, production and transportation costs, and geographic location of supply bases.

The main entry barrier in the mining industry is capital intensity. Investment in mining requires a substantial amount of funds in order to explore resources, replenish reserves, expand production capacity, build infrastructure and preserve the environment. Also, it usually takes a relatively long time for return on investments to materialise. The risks and technologies involved in mining operations, the requirement for government concessions and licences and environmental approvals, and the time required to achieve economies of scale in production also constitute important barriers of entry in the mining industry.

## VII. LONG-TERM MINING INDUSTRY TRENDS

In general, the continued growth in demand for minerals and metals depends increasingly on economic growth in emerging economies, given the increasingly significant share of global consumption accounted for by those economies and their faster economic growth when compared to that of the developed economies.

We believe growth in demand for iron ore, nickel and copper in the near term will be mainly driven by China's infrastructure development from its continued urbanisation and its increasing demand for key metals-intensive goods such as motor vehicles and consumer durables. In other

developing economies such as India, Russia and Brazil, we believe metal consumption has the potential to increase over the medium term, reflecting the growing demand for infrastructure, housing and consumer durables in those countries.

On the supply side, certain geological and institutional factors will continue to constrain the ability of suppliers of minerals and metals to respond to price incentives. These factors include:

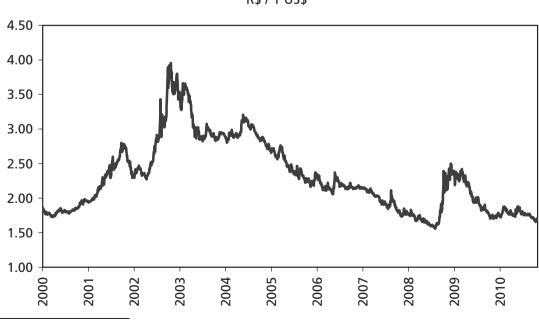
- grades of minerals are declining while stripping ratios are increasing;
- good quality supplies, especially for nickel and copper, become increasingly dependent on sources which are more difficult to access:
- restrictions on environmental permits are becoming a major cause of delay for mining projects;
- natural resources nationalism hampers mining investment; and
- higher taxes also deter mining investment.

The iron ore sector, in particular, is currently undergoing a period of consolidation, where producers are focusing on economies of scale in order to improve production efficiency and increase return on investments. We believe this will have a positive impact on large-scale producers, such as Vale.

The fertilizers industry is seeing a rise in global consumption, which we believe will continue as farmers, striving to satisfy the rising global demand for food, try to increase productivity on a declining per-capita arable land base. Continuing efforts by developing countries to address yield-limiting nutrient imbalances will further increase structural demand for fertilizers in the long term.

## VIII. EXCHANGE RATE FLUCTUATIONS

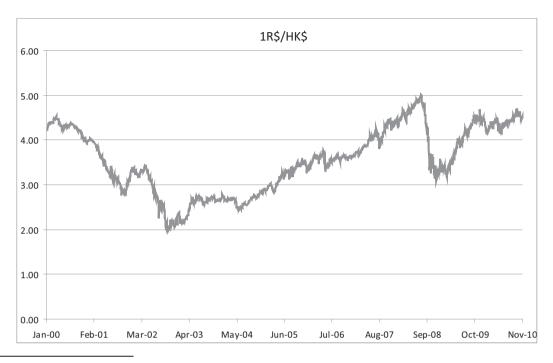
As further disclosed in the section in this Listing Document headed "Financial information", the revenues we can command from sales of our commodities are susceptible to fluctuations in currency exchange rates, in particular as between the U.S. Dollar and the Real. Please see below a chart indicating the fluctuation in exchange rates between 1 US\$ and Reais in the period from 2000 to 2010 as determined by the Central Bank of Brazil (PTAX Option 5):



R\$ / 1 US\$

Source: Bloomberg

As described in the section in this Listing Document headed "Risk factors", investors in Depositary Receipts are subject to exchange rate risk between Reais and Hong Kong Dollars. Please see below a chart indicating the fluctuation in spot exchange rates between 1 R\$ and HK\$ in the period 2000-2010.



Source: Bloomberg

## HISTORY AND DEVELOPMENT

#### **ESTABLISHMENT AND PRIVATISATION**

## **Establishment**

We were established by the Brazilian Government on 1 June 1942 under the name "Companhia Vale do Rio Doce" by Decree-Law No. 4,352 and duly incorporated on 11 January 1943 in the form of a mixed economy company, with objects to mine, trade, transport and export iron ore from the Itabira mines, and run the Vitória-Minas railroad, which carried iron ore and agricultural products from Vale do Rio Doce, in southeastern Brazil, to the port of Vitória, located in Espírito Santo.

Our Company was incorporated with both Common Shares and Class A Preferred Shares. Our securities were first listed on the Rio de Janeiro Stock Market (BVRJ) in October 1943. Our securities first became part of the IBOVESPA index in 1968. In March 1994, we issued ADRs negotiable on the over-the-counter market in the United States.

#### **Privatisation**

In June 1995, the Brazilian Government announced its intention to sell its Common Shares and Class A Preferred Shares as part of the ongoing Brazilian privatisation programme.

The privatisation process was initiated in 1997. Pursuant to Privatisation Decree PND-A-01/97/ VALE and the Resolution of the Brazilian National Privatisation Council — CND paragraph 2, of 5 March 1997, an extraordinary general meeting of our Company approved the issue of 388,559,056 shareholders' debentures of our Company on 18 April 1997, for the purpose of guaranteeing its pre-privatisation shareholders, including the Brazilian Government, the right to participate in revenues from certain mineral deposits of the Group after privatisation that were not taken into account in determining the price of shares in the privatisation.

In the first step of the privatisation process, on 6 May 1997, the Brazilian Government sold 104,318,070 Common Shares, representing approximately 41.73% of our then issued voting capital to Valepar, which was formed for the special purpose of holding a controlling interest in our outstanding Common Shares. The initial principal investors in Valepar were a subsidiary of Companhia Siderúrgica Nacional (CSN) (which is a Brazilian steelmaker), various Brazilian pension funds, an affiliate of Bank of America, a U.S. bank, and certain foreign investment funds.

In the second step of the privatisation process, on 20 May 1997, the Brazilian Government sold 11,120,919 Common Shares, representing approximately 4.5% of our then issued Common Shares, and 8,744,308 Class A Preferred Shares, representing approximately 6.3% of our then issued Class A Preferred Shares, in an offering restricted to our then current and retired employees. Substantially all of the shares sold in this step of the privatisation were purchased through Clube de Investimento dos Empregados da Vale-INVESTVALE, an association organised for the benefit of our then current and retired employees. Employees were also granted the option, exercisable through Investvale, to obtain an interest in the controlling block held by Valepar by exchanging the Common Shares held by them through Investvale for equity in Valepar.

In accordance with our privatisation deed, the Shareholders' meeting held after the privatisation approved the introduction of the Golden Share to be exclusively owned by the Brazilian Government which carried special veto rights over certain matters specified in the Bylaws. For more information on the rights attached to the Golden Shares, please refer to the section in this Listing Document headed "Share capital — Voting rights". After the share splits described below, there are now 12 Golden Shares in issue. All of the Golden Shares are owned by the Brazilian Government.

In the third step of the privatisation process on 20 March 2002, the Brazilian Government and BNDES each sold 34,255,582 Common Shares in a secondary public offering, in the form of Common Shares and ADSs, which together represented 27.9% of then issued Common Shares.

## HISTORY AND DEVELOPMENT

## Subsequent listing and trading

On 20 June 2000, ADRs evidencing ADSs representing our Class A Preferred Shares were listed on NYSE.

On 15 March 2002, ADRs evidencing ADSs representing our Common Shares were listed on NYSE.

Our Common Shares began trading on LATIBEX of the Madrid Stock Exchange in 2002.

For details of the commencement of listing of ADRs evidencing ADSs representing our Common Shares and Class A Preferred Shares on NYSE Euronext Paris, see "Global offering" below.

# **Share splits**

Since the completion of the final phase of the privatisation process, our share prices have appreciated substantially. We therefore undertook three share-splits to reposition the price per Share of our Shares to make it easier for retail shareholders to buy and sell the Common Shares and Class A Preferred Shares.

The first share-split was undertaken pursuant to a general meeting in August 2004 and each Share was split into three Shares. A second share-split was undertaken pursuant to a general meeting in April 2006 whereby each Share was further split into two Shares. A third share-split was undertaken pursuant to a general meeting on 30 August 2007 whereby each Share was further split into two Shares.

# Global offering

In July 2008, we conducted a global offering of 256,926,766 Common Shares and 189,063,218 Class A Preferred Shares (including Common Shares and Class A Preferred Shares in the form of ADSs evidenced by ADRs). At the same time we placed 63,506,751 Class A Preferred Shares and 80,079,223 Common Shares in the form of ADSs evidenced by ADRs. The offer also included 24,660,419 Class A Preferred Shares issued by way of over-allotment option. The offer raised approximately US\$12.2 billion. We used these funds for general corporate purposes, including our investment plan to finance organic growth.

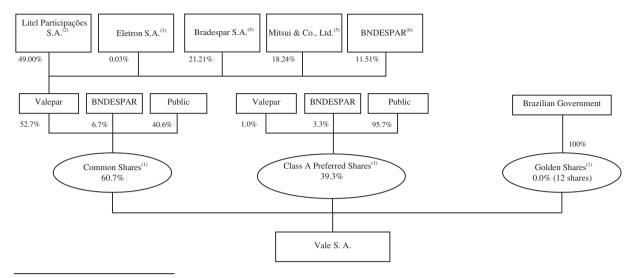
In connection with the global offering, on 21 July 2008, ADRs evidencing ADSs representing both Common Shares and Class A Preferred Shares were admitted to listing on NYSE Euronext Paris, trading in Euro denominations.

# Name change

On 22 May 2009, we changed our name from Companhia Vale do Rio Doce to Vale S.A.

# SHAREHOLDING STRUCTURE

The following chart illustrates our shareholding structure as of the Latest Practicable Date:

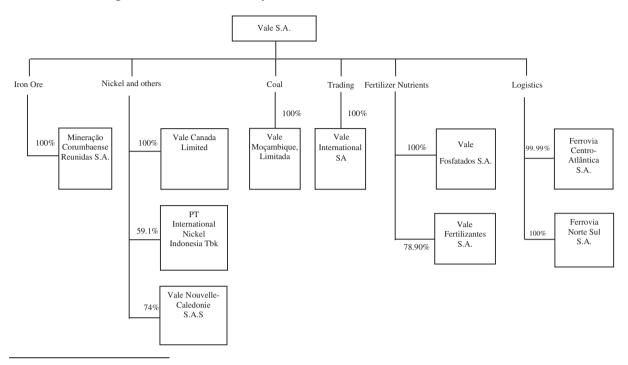


#### Notes:

- (1) For further information about our Common Shares, Class A Preferred Shares and Golden Shares, please refer to the section in this Listing Document headed "Share capital".
- (2) Litel Participações S.A. is a holding company controlled by BB Carteira Ativa Portfolio, an investment fund, administered by BB Gestão de Recursos Distribuidora de Títulos e Valores Mobiliários S.A., whose shares are 100%-owned by Previ Caixa de Previdência dos Funcionários do Banco do Brasil (Previ). Previ is a private pension fund and its participants are employees of the Banco do Brasil and of Previ itself.
- (3) Eletron S.A. is a holding company controlled by Opportunity Anafi Participações S.A,. a holding company controlled by Belapart S.A., Valetron S.A. and Opportunity Holding FIP.
- (4) Bradespar S.A. is a holding company controlled by (i) Cidade de Deus Companhia Comercial de Participações S.A., a holding company, (ii) NCF Participações S.A., a holding company; (iii) Nova Cidade de Deus Participações S.A., a holding company, and (iv) Fundação Bradesco (Bradesco Foundation), a non-profit entity.
- (5) Mitsui & Co., Ltd is a Japanese trading company whose largest shareholders are the following Japanese banks: (i) the Master Trust Bank of Japan, Ltd. (trust account); and (ii) Japan Trustee Services Bank, Ltd. (trust account).
- (6) BNDES Participações S.A. is a holding company 100%-owned by BNDES.

# SHAREHOLDING STRUCTURE

The following chart sets out our Major Subsidiaries (Note) as of the Latest Practicable Date:



#### Note:

The ownership interests referred to above are total capital interests held both directly and indirectly through intermediary entities, including intermediary entities otherwise referred to above.

# **BUSINESS**

## **OVERVIEW**

We are the second largest metals and mining company in the world and the largest in the Americas, based on market capitalisation as at 29 November 2010.<sup>1</sup> We are the world's largest producer by volume of iron ore and iron ore pellets. We are a leading producer of nickel. We are also among the leading producers of manganese ore and ferroalloys. We also produce copper, coal, fertilizer nutrients, cobalt, platinum group metals and other products.

To sustain our growth strategy, we are actively engaged in mineral exploration in twenty-three countries around the world. As at 30 June 2010, the Group owned and operated more than 60 mining sites and projects worldwide, of which approximately 44% were iron ore mines.

We operate large logistics systems in Brazil integrated with our mining operations, including railroads, maritime terminals and a port. In addition, we are building a portfolio of maritime freight to transport iron ore to Asia. We also have investments in the energy and steel sectors directly or through subsdiaries and companies under joint control.

The following table presents the breakdown of our total operating revenues attributable to each of our main lines of business.

			Year ended 3	1 December			Six months e	nded 30 June
	20	07	20	08	20	09	20	10
	(US\$ million)	(% of total)	(US\$ million)	(% of total)	(US\$ million)	(% of total)	(US\$ million)	(% of total)
Bulk materials:								
Ferrous minerals:								
Iron ore	11,908	36.0	17,775	46.2	12,831	53.6	9,182	54.7
Iron ore pellets	2,738	8.3	4,301	11.2	1,352	5.6	2,393	14.3
Manganese ore	69	0.2	266	0.7	145	0.6	147	0.9
Ferroalloys	719	2.2	1,211	3.1	372	1.6	312	1.9
Pig iron	<u>81</u>	0.2	146	0.4	45	0.2	9	0
Total for ferrous								
minerals	15,515	46.9	23,699	61.6	14,745	61.6	12,043	71.8
Coal	178	0.5	577	1.5	505	2.1	312	1.9
Base metals:								
Nickel	10,043	30.3	5,970	15.5	3,260	13.6	1,621 <sup>(3)</sup>	9.7
Copper	1,985	6.0	2,029	5.3	1,130	4.7	387	2.3
PGMs	314	1.0	401	1.0	132	0.6	0	0
Precious metals	113	0.3	111	0.3	65	0.3	0	0
Other non-ferrous								
minerals <sup>(1)</sup>	374	1.1	420	1.1	215	0.9	0	0
Aluminium <sup>(2)</sup>	2,722	8.2	3,042	7.9	2,050	8.6	1,254	7.5
Total for base								
metals	15,551	47.0	11,973	31.1	6,852	28.6	3,262	19.5
Fertilizer nutrients	178	0.5	295	0.8	413	1.7	275	1.6
Logistics services	1,525	4.6	1,607	4.2	1,104	4.6	723	4.3
Other investments	168	0.5	358	0.8	320	1.3	163	1.0
Total operating								
revenues	33,115	100.0	38,509	100.0	23,939	100.0	16,778	100.0
TOTCHIGGS T. T. T. T. T.	=======================================	===	=======================================		=======================================	====	10,770	====

## Notes:

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<sup>(1)</sup> Includes kaolin and cobalt. We propose to transfer all of our interests in the kaolin business. Hence, we entered into an agreement with Imerys S.A. in July 2010 for the transfer of our interest in Pará Pigmentos S.A. (PPSA) and propose to transfer our other kaolin mineral rights located in Northern Brazil.

<sup>(2)</sup> We have entered into agreements to transfer our interests in the aluminium business:

<sup>(</sup>a) an agreement with Norsk Hydro ASA in May 2010 for the transfer of our stakes in three aluminium companies, together with certain contractual rights; and

<sup>(</sup>b) an agreement with Alumínio Nordeste S.A., a company of the Metalis group, in January 2010 for the transfer of the aluminium assets of Valesul Aluminio S.A.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg

(3) For the purposes of this figure only, nickel revenues were aggregated with those for its co-products and by-products, including cobalt and precious metals.

The following table presents the breakdown of our Material Reserves (for further details, see Appendix III to this Listing Document):

Iron ore reserves per mine in the Southeastern System as at

			Projected				
	Prov	en	Proba	ble	Tota	al	exhaustion
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date
Itabira complex							
Conceição	267.3	51.4	26.4	58.8	293.7	52.1	2023
Minas do Meio	301.6	53.8	172.0	56.1	473.6	54.7	2023
Minas Centrais complex							
Água Limpa/Cururu <sup>(2)</sup>	37.0	41.4	5.5	42.0	42.5	41.5	2019
Gongo Soco	43.3	65.9	11.9	64.6	55.2	65.6	2019
Brucutu	410.0	50.2	250.3	47.2	660.4	49.1	2023
Apolo	292.4	57.4	339.7	55.1	632.1	56.2	2029
Mariana complex							
Alegria	150.7	49.7	27.1	46.8	177.8	49.2	2024
Fábrica Nova	480.1	46.0	349.6	44.1	829.6	45.2	2033
Fazendão	233.4	49.6	92.6	50.0	326.0	49.7	2040
Corumbá complex							
Urucum	7.4	62.6	25.4	<u>62.1</u>	32.8	62.2	2023
Total Southeastern System	2,223.2	<u>51.0</u>	1,300.6	50.5	3,523.8	50.8	

Iron ore reserves per mine in the Southern System as at 30 June 2010<sup>(1)</sup>

			Projected				
	Prov	en	Proba	ble	Tota	al	exhaustion
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date
Minas Itabiritos complex							
Segredo	172.1	52.0	168.7	48.5	340.8	50.2	2034
João Pereira	202.3	42.2	287.7	41.7	490.0	41.9	2034
Sapecado	90.2	52.7	120.3	53.2	210.5	53.0	2030
Galinheiro	114.1	54.7	180.7	54.0	294.8	54.3	2030
Vargem Grande complex							
Tamanduá	280.3	56.1	203.8	51.3	484.0	54.1	2039
Capitão do Mato	200.2	55.6	558.3	50.6	758.5	51.9	2040
Abóboras	227.4	45.3	217.1	43.3	444.5	44.3	2029
Paraopeba complex							
Jangada	39.1	66.7	14.6	66.3	53.8	66.6	2018
Córrego do Feijão	27.5	67.0	3.3	63.7	30.8	66.7	2014
Capão Xavier	79.8	65.1	8.1	64.3	87.9	65.0	2021
Mar Azul	17.0	58.2	1.5	<u>58.6</u>	18.5	58.2	2016
Total Southern System	1,450.0	52.6	1,764.0	48.9	3,214.0	50.6	

<sup>(1)</sup> Tonnage is stated in millions of metric tons of run-of-mine. Grade is % of Fe.

<sup>(2)</sup> Our Company has a 50% equity interest in the Água Limpa/Cururu mine.

Iron ore reserves per mine in the Northern System as at 30 June 2010<sup>(3)</sup>

	30 June 2010						Projected	
	Proven		Proba	ble	Total		exhaustion	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date	
Serra Norte complex								
N4W	1,212.3	66.5	286.9	66.1	1,499.2	66.4	2028	
N4E	285.4	66.5	86.3	66.0	371.7	66.4	2024	
N5	381.0	66.8	724.7	67.2	1,105.7	67.1	2028	
Serra Sul								
S11	3,045.8	66.8	1,193.7	66.7	4,239.6	66.8	2059	
Serra Leste								
SL1	55.7	66.2	5.2	66.4	60.9	66.2	2039	
Total Northern System	4,980.3	66.7	2,296.8	66.7	7,277.2	66.7		

## Iron ore reserves per mine in Samarco as at 30 June $2010^{(3)}$

			Duning to at and				
	Prov	en	Proba	ble	Tota	al	Projected exhaustion
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date
Samarco Norte Centro	706.0	44.2	554.7	40.7	1,260.7	42.7	2052
Samarco Sul	440.0	39.7	382.0	<u>38.5</u>	822.0	<u>39.2</u>	2052
Total Samarco <sup>(4)</sup>	<u>1,146.0</u>	42.5	936.7	39.8	2,082.7	41.3	

<sup>(3)</sup> Tonnage is stated in millions of metric tons of run-of-mine. Grade is % of Fe.

<sup>(4)</sup> Our Company has a 50% equity interest in the Samarco mines.

		Dun in at and						
	Proven		Probable		Total		Projected exhaustion	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	date	
Canada								
Sudbury	69.5	1.22	47.0	1.15	116.5	1.19	2025	
Thompson	8.0	1.93	17.0	1.63	24.9	1.72	2010-47	
Voisey's Bay	21.4	3.00	3.2	0.66	24.6	2.70	2022	
New Caledonia								
Vale New Caledonia (Goro)	100.8	1.35	23.5	1.91	124.3	1.46	2041	
Brazil								
Onça Puma	55.1	1.79	27.6	1.62	82.7	1.73	2040	
Total	254.8	1.57	118.3	1.47	373.0	1.53		

## Indonesia nickel ore reserves as at 30 June 2010<sup>(5)</sup>

	June 2	2010(3)	Duningtoni
	Proven and	Projected exhaustion	
	Tonnage	Grade	date
Indonesia <sup>(6)</sup>			
Sorowako, Sulawesi	119.0	1.79	2035 <sup>(7)</sup>
Total	119.0	1.79	

<sup>(5)</sup> Tonnage is stated in millions of dry metric tons. Grade is % of nickel.

<sup>(6)</sup> Disclosure is made separately from other nickel reserves to reflect the particular aggregation of proven and probable reserves for Indonesia.

<sup>(7)</sup> Subject to duration of Contract of Work (as to which see the section of to this Listing Document headed "Business — Mining concessions and other related rights")

Copper ore reserves as at 30 June 2010<sup>(8)</sup>

	copper ore reserves as at 50 same 2010					
	Proven		Probable		Total	
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
Brazil						
Sossego	100.8	0.97	39.8	0.88	140.6	0.95
Salobo	<u>569.2</u>	0.75	<u>554.1</u>	0.64	1,123.3	0.70
Total	670.0	0.78	<u>593.9</u>	0.66	1,263.9	0.73

<sup>(8)</sup> Tonnage is stated in millions of metric tons of run-of-mine. Grade is % of copper.

Cool	oro	reserves	25.24	20	luno	2010(9)	
เกลเ	ore	reserves	as at	30	IIIne	70105	

	coar ore reserves as at 50 varie 2010						
	Coal type	Proven	Probable		Total		
		(tonnage)		(tonnage)	(calorific value)		
Moatize	Metallurgical & thermal	422	532	954	27.2 (thermal)		

<sup>(9)</sup> Tonnage is stated in millions of metric tons. Reserves are based on in-situ moisture. Calorific value of product coal derived from beneficiation of ROM coal is typically stated in megajoule per kilogramme. Calorific value is used in marketing thermal coal.

#### **Bulk materials**

## Ferrous minerals

Iron ore

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.

In April 2010, we acquired a 51% interest in BSG Resources (Guinea) Ltd, which indirectly holds iron ore concession rights in Guinea, for a cash consideration of US\$2,500 million, of which US\$500 million was payable immediately and the remaining US\$2,000 million on a phased basis subject to the achievement of specific milestones by the end of 2011. For further details, see the section in this Listing Document headed "Business — Recent developments and future projects — ferrous minerals".

#### Iron ore pellets

We operate 10 pellet-producing plants in Brazil. We also have a 50% stake in a joint venture that owns three integrated pellet plants in Brazil and a 25% stake in a pellet company incorporated in China.

#### Manganese ore

We conduct our manganese mining operations through subsidiaries incorporated in Brazil.

## Ferroalloys

We produce several types of manganese ferroalloys through subsidiaries incorporated in Brazil, France and Norway.

#### Coal

We produce metallurgical and thermal coal through Vale Australia, which operates coal assets in Australia through wholly-owned subsidiaries and unincorporated joint ventures. Through our subsidiary, Vale Colombia, we produce thermal coal in the Cesar department of Colombia. We have minority interests in coal and coke producers in China.

We are pursuing various opportunities to become a large global player in the coal business. We intend to continue pursuing organic growth in the coal business through the development of the Moatize project in Mozambique, the development of more advanced coal exploration projects in Australia and Colombia.

#### Base metals

Nickel

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

## Copper

In Brazil, we produce copper concentrates at Sossego in Canaã dos 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 and Voisey's Bay.

#### **PGMs**

We produce PGMs 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.

## 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.

#### Cobalt

We produce cobalt as a by-product of our nickel mining and processing operations in Canada and refine it at our Port Colborne facilities.

## Fertilizer nutrients

#### Potash

We are Brazil's sole producer of potash, with operations in Rosario do Catete, in the state of Sergipe. We are engaged in a major expansion of our fertilizer nutrients business through acquisitions and organic growth.

## Phosphates, nitrogen and others

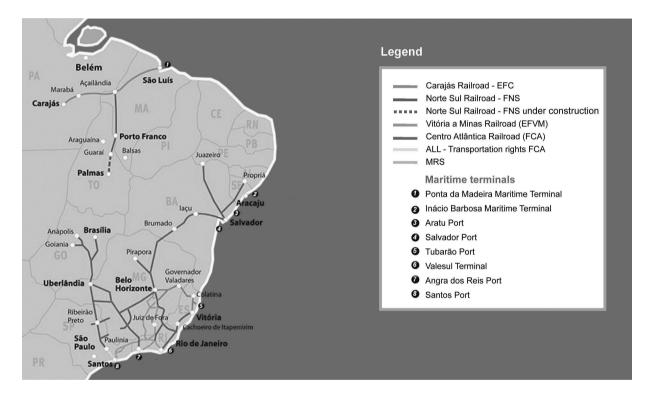
In January and February 2010, we announced that we had, through our subsidiary Mineração Naque S.A., entered into various agreements and option contracts to acquire (a) 100% of the outstanding shares of Bunge Participações e Investimentos S.A. (now known as Vale Fosfatados S.A.), a company with assets and investments in the fertilizer business in Brazil; and (b) the controlling interest in Fertilizantes Fosfatados S.A. — Fosfertil (now known as Vale Fertilizantes), a company listed on BM&FBOVESPA. Vale Fosfatados S.A. owns a portfolio of Brazilian fertilizer assets composed of two phosphate rock mines in the states of Minas Gerais and São Paulo and phosphate assets as well as direct and indirect interests in the equity capital of Vale Fertilizantes. Vale Fertilizantes operates three phosphate rock mines in the states of Goiás and Minas Gerais. The acquisitions of the Brazilian fertilizer assets of Vale Fosfatados S.A. and the controlling interest in

Vale Fertilizantes were completed in May and September 2010, respectively. We currently hold 78.90% of the total equity capital of Vale Fertilizantes, of which we hold 99.81% of its ordinary shares and 68.24% of its preferred shares. The Company is also implementing a mandatory tender offer to acquire the remaining 0.19% of the common shares of Vale Fertilizantes.

## **Logistics services**

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.

Please see below a map of our logistics system in Brazil:



We conduct seaborne dry bulk shipping and provide tug boat services. We own and charter vessels to transport our iron ore to customers. In 2009, we bought 17 used capesize vessels, seven of which began operation in 2010. We have placed orders with shippards for the construction of 16 large ore carriers, each with a capacity of 400,000 DWT, and four additional capesize vessels, each with a capacity of 180,000 DWT. We expect this service to enhance our ability to offer our products in the Asian market at competitive prices and to increase our market share in China and the global seaborne market.

Our tug boat services provide a towing service at our terminals in Brazil. We also own a 31.3% interest in Log-In Logística Intermodal S.A., which provides logistics services in Brazil, Argentina and Uruguay, and a 41.5% interest in MRS Logística S.A., which transports our iron ore products from the Southern System mines to our Guaíba Island and Itaguai maritime terminals, in the state of Rio de Janeiro.

## Recent transactions involving aluminium and kaolin businesses

We are always seeking to optimise our business structure. Active portfolio asset management is one of our main strategies to create value on a sustainable basis.

#### Aluminium business

In May 2010, we entered into an agreement with Norsk Hydro ASA (**Hydro**) to transfer most of our alumina and aluminium operations for US\$405 million in cash, the assumption of US\$700 million of net debt by Hydro and, following a rights offering by Hydro, a 22% stake in Hydro. In addition, we will transfer bauxite mines and mineral rights (apart from rights owned through our 40% stake in Mineração Rio do Norte S.A., a bauxite producer located in Brazil) to a joint venture company, of which a 60% stake will be transferred to Hydro, at closing, for US\$600 million. Hydro will acquire the remaining 40% of the joint venture in two tranches, each for US\$200 million in cash, in 2013 and 2015, respectively.

Completion of the transaction is conditional upon, among other things, the approval of the shareholders of Hydro, including the Government of Norway, and the approval of certain of our partners in the companies whose interests will be contributed to Hydro.

Our participation in the primary aluminium metal industry was small, and had no growth potential due to the lack of access to low-cost sources of power generation, as energy is a key factor determining competitiveness in this business. Hydro is a major player in the primary aluminium industry, having captive power generation capability at competitive costs, technological expertise and growth potential.

#### Kaolin business

In the second quarter of 2010, we transferred our stake in Pará Pigmentos S.A. (PPSA) and other kaolin mineral rights located in the state of Pará, Brazil. Those assets were transferred to Imerys S.A., a company listed on NYSE Euronext Paris, for US\$70 million. Kaolin, together with other non-ferrous minerals, had contributed less than 0.9% of our total operating revenues in 2009. The contribution of kaolin to our revenues and the operating margins on those revenues were considered too small to make kaolin of continuing economic viability to the Group.

## **STRENGTHS**

#### We have world-class iron ore operations

We are the world's largest producer by volume of iron ore and iron ore pellets. Our iron ore operations are the foundation for our skill in prospecting and exploring mineral deposits, developing and operating large-scale mines and industrial facilities, managing complex logistics systems and marketing minerals and metals. We benefit from the following strengths in our iron ore operations:

- Large reserves base We hold the world's largest iron ore reserves with 13,784 Mt of
  reserves as at 30 June 2010, mainly in our principal mining sites, the Northern System, the
  Southeastern System and the Southern System. Based on 2009 production levels, we have
  approximately 55 years of proven and probable iron ore reserves.
- High-quality iron ore deposits Our ores also have low impurity levels and good metallurgical characteristics, which yield high levels of productivity in our customers' furnaces and lead to lower processing costs.
- Production cost advantages We have competitive production and delivery cost
  advantages in our iron ore business. In addition, we have the ability to transport iron
  ore to our customers efficiently and reliably at low costs through our own mine-to-port
  systems. We operate an integrated railroad and maritime terminal network in both the
  Southeastern System and the Northern System. These networks transport our iron ore from

mining locations to the port terminals and to our domestic clients. In addition, the high iron content in the Northern System eliminates the need to operate a concentration plant at Carajás.

- Ability to produce a broad range of iron ore products Our mines offer varying types of
  ore characteristics, which allow us to produce a broad range of iron ore products. The steel
  companies with which we contract 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.
- Ability to produce premium quality iron ore products Our iron ore has low impurity levels and other properties that generally lead to lower processing costs. We believe our ability to reconcile large-scale production with the capacity to produce specialised, high-quality ore products, which have high iron content, low impurity levels and complement the needs of our customers' furnaces, has allowed us to become a major supplier to significant Asian customers, despite their greater proximity to some of our competitors. When the market is very strong, our quality differential is in many cases more valuable to customers than a freight differential.

## We have integrated logistics systems to strengthen our competitiveness

- 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. We believe our dependable mine-to-port system and emphasis on customer service have earned us a reputation for reliability.
- In addition, we are building up a low-cost freight portfolio and distribution centres around the world, aimed at enhancing our ability to offer our products in the Asian market at competitive prices, thereby increasing our Asian market share. To support this strategy, we ordered new ships, purchased used vessels and entered into medium- and long-term freight contracts.

## We have a solution-oriented marketing policy with a strong focus on customer service

- We strongly emphasise 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. For example, steel companies with which we contract 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 specialised personnel in direct contact with our customers to help determine the blend that best suits the needs of each particular customer.
- Using our expertise in mining, agglomeration and iron-making processes, we search for technical solutions that will enable us to strike a balance between the best use of our mining assets and maximising the satisfaction of our customers. We believe that our ability to provide customers with a total iron ore solution and the quality of our products are very important advantages that help 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 sales office in St. 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 deliveries on schedule.

## We have a diversified and high-quality portfolio of assets

Aside from our world class iron ore operation, we also have a wide range of other high-quality assets:

- We are a leading producer of nickel, which is a raw material used to produce stainless steel, aircrafts, mobile telephones, batteries, special batteries for hybrid electric vehicles and other products.
- We have an asset base in other commodities that allows us to produce copper, fertilizer nutrients, coal, manganese, ferroalloys, cobalt and platinum group metals, important raw materials for the global manufacturing and construction industries.
- Our mineral exploration activities are geographically diversified across twenty-three countries.

# We have a long and successful track record of project operation and development with an experienced management team

- We have become a global company, with over 60 years of successful operation and development. Our operations are carried out over five continents and we employ over 115,000 direct employees and contractors.
- We have excellence in project execution, with 31 major projects from 2002 to 2009, together with a proven capability to identify and successfully integrate acquisition targets.
   We had several projects to be delivered in 2010 (including Onça Puma, Tres Valles and Oman) and three of them are already operating (namely, Additional 20 Mtpy in Carajás, Bayóvar and TKCSA).
- As previously reported in the annual reports of our Company, our net operating revenues increased from \$8,066 million in 2004 to \$23,311 million in 2009, representing a CAGR of 23.7%.
- As previously reported in the annual reports of our Company, production of iron ore increased from 211.3 Mt in 2004 to 246.5 Mt in 2009, representing a CAGR of 3.1%.
- As previously reported in the annual reports of our Company, reserves of iron ore increased from 6,869.1 Mt in 2004 to 16,018.2 Mt in 2009, representing a CAGR of 18.5%, which demonstrates our proven track record in project development.

## We have a well-planned long-term growth strategy with a strong project pipeline

- We have a strong project pipeline consisting of both brownfield and greenfield projects including the iron ore projects Carajás Additional 30 Mtpy and Carajás Serra Sul which are further described in the section in this Listing Document headed "Business — Recent developments and future projects".
- We have a dedicated business development team to execute our business development strategy.

## We have superior financial strength with disciplined capital allocation

- We have a strong cash position (US\$6.235 billion cash holdings as of 30 June 2010) and sufficient cashflow to fund future growth.
- Our Common Shares and Class A Preferred Shares are already listed in Brazil and in the form of ADRs in the United States (among other countries), giving us full access to global capital markets.

 As evidence of our discipline in capital allocation, we are presently an investment grade company, rated BBB+ by Standard & Poor's, Baa2 by Moody, BBB+ by Fitch and BBB (high) by Dominion Bond Rating Service.

## We have fully leveraged the strong long-term fundamentals of minerals and metals

We are ideally positioned to benefit from the following favourable macroeconomic trends as the second largest mining company in the world by market capitalisation as at 29 November 2010<sup>1</sup>:

- Geological and institutional factors will continue to constrain the supply response to price incentives.
- Structural shortages of iron ore globally, especially in key emerging economies such as China and India, will provide long-term support for pricing.

#### **STRATEGIES**

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 established standards of excellence in research, development, project design and implementation, and business operations. We aim to increase our geographical and product diversification and logistics capabilities. Iron ore and nickel will continue to be our main businesses while we boost the production capacity of our copper, coal and fertilizer nutrients businesses. To enhance our competitiveness, we will continue to invest in our railroads, maritime terminals, maritime freight portfolio and power generation capacities. We continue to seek opportunities to make strategic acquisitions, while focusing on disciplined capital management in order to maximise return on invested capital and total return to Shareholders.

Our main goal is to maximise Shareholder value. We believe we are best positioned to benefit from the strong long-term fundamentals of the minerals and metals market, given our world-class, long-life and low cost assets, strong growth potential in various segments of the metals and mining industry supported by our project pipeline, global multi-commodity mineral exploration programme, long and successful track record in project development, discipline in capital allocation and financial strength.

We believe the implementation of our development plans in the near future, based firmly on our values and extensive competitive advantages, will create significant shareholder value across business cycles and opportunities for economic and social mobility for the communities where we carry on our operations.

Below we highlight our major business strategies:

#### Maintaining our leadership position in the global iron ore market

We will continue to consolidate our leadership in the global iron ore market. In 2008, we had an estimated market share of 32.8% of the total volume traded in the seaborne market, and in 2009 it decreased to 26.1% due to the severe impact of the global recession on the steel industry in Brazil and Europe, two major markets for the sale of our iron ore. We are committed to maintaining our leadership position in the global iron ore market, by focusing our product line to capture industry trends, increasing our production capacity in line with demand growth, controlling costs, strengthening our logistics infrastructure of railroads, ports, shipping and distribution centres, and strengthening relationships with customers. We believe our diversified portfolio of high-quality products, strong technical marketing strategy, efficient logistics and strong and long-standing relationships with major customers will help us achieve this goal. We have also encouraged

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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg

steelmakers to develop steel projects 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 a leading producer of nickel, with large-scale, long-life and low-cost operations, a substantial resource base, advanced technology and a steady growth profile. We have refineries in North America, Europe and Asia, which produce an array of products for use in most nickel applications. 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. Our long-term goal is to strengthen our nickel business.

## Investing in fertilizer nutrients

We are pursuing various opportunities to become a major producer of fertilizer nutrients in order to benefit from rising global consumption, which is expected to grow significantly in emerging markets. We expect per capita income growth and increased demand for biofuels to drive demand for fertilizers. In this context, Brazil is expected to play a key role in the global agricultural market, given its position as a global agricultural powerhouse and its growth potential due to its abundant supply of water and arable land for the expansion of the agricultural industry.

We have developed an understanding of the fertilizer industry, having successfully operated a potash mine in Brazil (Taquari-Vassouras) since the early 1990s. Our portfolio of phosphate projects in Peru and Africa and potash projects in Argentina, Brazil and Canada will, we believe, put us in a strong position to capture a significant portion of future market growth, especially in Brazil.

We are engaged in several phosphate and potash mineral exploration projects around the world, and we are seeking opportunities to accelerate our growth strategy, including through acquisitions (as to which see the section in this Listing Document headed "Business — Overview").

## **Developing our copper resources**

We believe that our copper projects, all of which are situated in the Carajás mineral province in the Brazilian state of Pará, are among the more competitive in the world in terms of investment cost per metric ton of ore. We are developing the Salobo project to produce copper concentrate and testing a new hydro-metallurgical technology at the Usina Hidrometalúrgica de Carajás plant that could enable 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 developing the Tres Valles copper project in Chile, and we have growth options in the copper business in Africa through a joint venture with African Rainbow Minerals Limited. We are 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 the coal business. We have coal operating assets and a portfolio of exploration projects in Australia and Colombia, and minority interests in two joint ventures in China. We intend to continue pursuing organic growth in the coal business through the development of the Moatize project in Mozambique, the development of more advanced coal exploration projects in Australia and Colombia, and mineral exploration initiatives in several countries, such as Mongolia.

## Diversifying and expanding our resource base

We are actively engaged in mineral exploration in twenty-three countries. We are mainly seeking new deposits of coal, copper, iron ore, manganese ore, nickel, phosphates, natural gas,

PGMs, 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 extensive 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 continue to invest in a dedicated maritime freight shuttle service from Brazil to Asia and in the development of distribution centres in Asia and the Middle East in order to minimise freight costs and maximise flexibility so as to enhance the competitiveness of our iron ore business in these regions.

## **Developing energy 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. As a potentially large consumer of natural gas, in 2007 we began investing in natural gas exploration in Brazil through consortia, and in 2009 we made our first discoveries. We are seeking to diversify and optimise our energy matrix through increased use of thermal coal, renewable fuels and natural gas.

#### MINING AND EXPLORATION OPERATIONS

Our principal line of business consists of mining and exploration operations. We are the world's largest producer by volume of iron ore and iron ore pellets. We are a leading producer of nickel. We are also among the leading producers of manganese ore and ferroalloys. We also produce copper, coal, fertilizer nutrients, cobalt, PGMs and other products. The map below illustrates the location of our mining and exploration operations worldwide.



## **Bulk materials**

#### **Ferrous minerals**

Our ferrous minerals business includes iron ore mining, iron ore pellet production, manganese ore mining, ferroalloy production and a pig iron operation. Each of these activities is described below.

#### Iron ore

## **Operations**

We conduct our iron ore operations in Brazil directly and through our subsidiary, Urucum. These operations for mining iron ore and the others related to them are concentrated in three systems: the Southeastern System, the Southern System and the Northern System, each with its own carrying capacity. We also have open-cast mines through our affiliate, Samarco.

		shareho percer	olding	
Company	<u>System</u>	Voting (%)	Total (%)	Partners
Vale	Northern, Southeastern and Southern	_	_	_
Urucum	Southeastern	100	100	_
Samarco	<del>_</del>	50.0	50.0	BHP-Billiton plc

## 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 the mines of Urucum and Corumbá are 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% and requires concentration to achieve shipping grade, which is at least 63.5% average iron grade. Urucum ore reserves have high ratios of hematite ore, which has an average grade of 63%.

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.

In September 2009, we concluded the acquisition of Corumbá, where we produce lump ores. At the Urucum and Corumbá mines, we generally process the run-of-mine by means of standard crushing and classification steps, producing only lump ore. In 2009, we produced 100% 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 the section in this Listing Document headed "Business—Infrastructure — Logistics services". Iron ore from the mines of Urucum and Corumbá in the state of Mato Grosso do Sul is transported to customers on barges that navigate 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 our subsidiary, Minerações Brasileiras Reunidas S.A., are operated by our Company 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 2009, we produced 100% 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 in which we own a 41.5% stake, 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, southern and eastern ranges situated 35 kilometres apart. Since 1985, we have been conducting mining activities in the northern range, which is divided into three main mining bodies (N4W, N4E and N5). 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 need 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 maritime 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.

## Samarco

We own 50% of Samarco, which operates an integrated system, comprised of a mine, pipeline, three pellet plants and a port. Samarco's Alegria mine complex, located in Mariana, Minas Gerais, is in the same region as our Southeastern System.

Production

Production

#### Production

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

			tion for th			Production for the six months ended 30 June	Production for the nine months ended 30 September	
Mine/Plant	Туре	2007	2008	2009	Recovery rate <sup>(13)</sup>	2010	2010	
<del></del>		(milli	on metric	tons)	(%)	(million	metric tons)	
Southeastern System								
Itabira complex		46.7	41.8	31.1	70.45	18.0	28.7	
Minas do Meio <sup>(1)</sup>	Open-pit	24.8	21.5	13.8				
Conceição <sup>(1)</sup>	Open-pit	21.9	20.3	17.3				
Minas Centrais complex		33.9	37.5	28.4	76.50	19.3	30.5	
Água Limpa/Cururu <sup>(2)</sup>	Open-pit	4.2	4.7	1.4				
Gongo Soco	Open-pit	6.5	5.0	2.7				
Brucutu	Open-pit	21.9	26.4	23.6				
Andrade <sup>(3)</sup>	Open-pit	1.3	1.4	0.7				
Mariana complex		34.2	37.1	28.9	77.70	18.0	27.7	
Alegria	Open-pit	13.5	12.3	12.1				
Fábrica Nova <sup>(4)</sup>	Open-pit	14.6	14.0	13.7				
Fazendão <sup>(5)</sup>	Open-pit	3.7	9.8	3.1				
Timbopeba	Open-pit	1.3	_	_				
Corumbá <sup>(6)</sup>	Open-pit	_	_	0.4	55.0	1.2	2.0	
Urucum	Open-pit	1.1	1.0	0.5	61.0	0.6	1.0	
Total Southeastern System		114.9	116.4	89.3		57.1	89.8	
Southern System <sup>(7)</sup>								
Minas Itabirito complex		29.2	27.2	18.2	64.40	14.3	22.6	
Segredo/João Pereira	Open-pit	11.8	12.1	8.4				
Sapecado/Galinheiro <sup>(8)</sup>	Open-pit	17.4	15.1	9.8				
Vargem Grande complex		27.7	23.7	20.7	84.92	11.0	16.9	
Tamanduá <sup>(9)</sup>	Open-pit	10.2	9.8	7.3				
Capitão do Mato <sup>(9)</sup>	Open-pit	11.5	9.7	8.0				
Abóboras	Open-pit	6.0	4.2	5.4				
Paraopeba Complex		32.4	29.7	16.5	80.19	10.9	17.0	
Jangada	Open-pit	3.9	4.3	_				
Córrego do Feijáo	Open-pit	9.3	8.4	5.6				
Capão Xavier	Open-pit	13.3	13.5	10.9				
Mar Azul	Open-pit	5.9	3.5	_				
Total Southern System		89.3	80.5	55.4		36.2	56.5	

		Production for the year ended 31 December				Production for the six months ended 30 June	Production for the nine months ended 30 September
Mine/Plant	Туре	2007	2008	2009	Recovery rate <sup>(13)</sup>	2010	2010
		(million metric tons)			(%)	(million	metric tons)
Northern System							
Serra Norte (10)		91.7	96.5	84.6	92.4	46.2	73.2
N4W	Open-pit	40.3	44.3	31.0			
N4E	Open-pit	15.4	13.2	16.9			
N5 <sup>(11)</sup>	Open-pit	36.0	39.1	36.8			
Total Northern System		91.7	96.5	84.6		46.2	73.2
Vale		295.9	293.4	229.3		139.5	219.5
Samarco <sup>(12)</sup>	Underground	14.5	16.6	17.2	57.7	10.6	16.1
Total		310.4	310.0	246.5		150.1	227.5

#### Notes:

- (1) The run-of-mine from Minas do Meio is sent to the Cauê and Conceição concentration plants.
- (2) 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.
- (3) The lease for the Andrade mine was terminated in 2009 by mutual consent of the lessor.
- (4) Fábrica Nova ore is sent to the Alegria and Fábrica Nova plants.
- (5) Fazendão ore is sent to the Alegria plant and Samarco.
- (6) Production relative to the fourth quarter of 2009 on the basis of acquisition in the third quarter of 2009. On a pro forma basis, production at Corumbá reached 2.0 Mt in 2009.
- (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 and N5-W mines were incorporated in the N5 reserves.
- (12) Production figures for Samarco, in which we have a 50% interest, have not been adjusted to reflect our ownership interest other than in respect of production for the nine months ended 30 September 2010.
- (13) Recovery rate is prepared by reference to the period preceding 1 January 2010.

## Iron ore pellets

## **Operations**

Directly and through affiliates and subsidiaries, we produce iron ore pellets in Brazil and in China, as set forth in the following table. The total estimated nominal capacity of the 10 pellet plants directly operated by us, including Hispanobras, is 48 million metric tons per year.

		Ou shareho percer	olding			
Company	Site of operation	Voting (%)	Total	<u>Partners</u>		
Vale	Brazil: Tubarão, Fábrica, Vargem Grande and São Luís	_	_	_		
Hispanobras	Brazil: Tubarão	51.0	50.9	Arcelor Mittal		
Samarco	Brazil: Mariana and Anchieta	50.0	50.0	BHP-Billiton plc		
Zhuhai YPM	China: Zhuhai, Guangdong	25.0	25.0	Zhuhai Yueyufeng Iron and Steel Co., Ltd. and Pioneer Iron and Steel Group Co., Ltd.		

In the Tubarão port area, in the Brazilian state of Espírito Santo, we operate our wholly-owned pellet plants, Tubarão I and II, four plants we lease under operating leases 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.

Our São Luís pellet 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 pellet 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 iron ore from the Pico mine to the Vargem Grande plant. We transport pellets from these plants using MRS.

Samarco operates three pellet plants in two operating sites with nominal capacity of 21 Mt per year. The pellet plants are located in the Ponta Ubu unit, in Anchieta, Espírito Santo. Iron ore from Alegria and our Southeastern System mine Fábrica Nova is sent to the Samarco pellet plants using a 396-kilometre pipeline for the conveyance of iron ore. Samarco has its own port facilities to transport its production.

The Zhuhai YPM pellet 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 Zhuhai Yueyufeng Iron and Steel Co., Ltd., which is also located in the Yueyufeng Steelmaking Complex.

We sell pellet feed to our pelletising joint ventures at market prices. Historically, we have supplied all of the iron ore requirements of our wholly-owned pellet plants and joint ventures, except for Samarco and Zhuhai YPM, to which we supply only part of their requirements. Of our total pellet production in 2009, 58.8% was blast furnace pellets, and the remaining 41.2% 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 about our iron ore sales to our pelletising joint ventures for the periods indicated.

		for the ye	
	2007	2008	2009
	(millio	n metric to	ons)
Hispanobras	4.7	4.1	1.2
Itabrasco <sup>(1)</sup>		3.2 <sup>(1)</sup>	_
Kobrasco <sup>(2)</sup>		1.6 <sup>(2)</sup>	
Nibrasco <sup>(3)</sup>	7.4	$2.0^{(3)}$	_
Samarco <sup>(4)</sup>	7.1	11.3	4.9
Zhuhai YPM <sup>(5)</sup>	_	8.0	0.9
Total	28.1	23.0	7.0

#### Notes

- (1) Sales through September 2008. We signed a 10-year operating lease for Itabrasco's pellet plant in October 2008.
- (2) Sales through May 2008. We signed a five-year operating lease for Kobrasco's pellet plant in June 2008.
- (3) Sales through April 2008. We signed a 30-year operating lease for Nibrasco's two pellet plants in May 2008.
- (4) In 2007, we sold 1.9 million metric tons of concentrate and 5.2 million metric tons of run-of-mine; in 2008, we sold 1.8 million metric tons of concentrate and 9.5 million metric tons of run-of-mine; and in 2009, we sold 1.1 million metric tons of concentrate and 3.8 million metric tons of run-of-mine.
- (5) Zhuhai YPM started operations in January 2008.

#### Production

The following table sets forth information about our iron ore pellet production. The table reflects 100% of production at each facility.

	Production for the year ended December 31			Production for the six months ended 30 June	Production for the nine months ended 30 September
Company	2007	2008	2009	2010	2010
			(	million metric tons)	
Vale <sup>(1)</sup>	17.6	26.6	15.3	17.2	27.4
Hispanobras <sup>(5)</sup>	4.3	3.8	1.2	0.9	1.5
Itabrasco <sup>(2)</sup>	4.0	2.9			_
Kobrasco <sup>(3)</sup>	5.0	2.1			_
Nibrasco <sup>(4)</sup>	9.0	2.7			_
Samarco <sup>(5)</sup>	14.3	<u>17.1</u>	16.1	_5.0	<u>7.9</u>
Total	<u>54.2</u>	55.2	32.6	<u>23.1</u>	<u>36.8</u>

#### Notes:

- (1) Figure includes actual production, including production from the four pellet plants we leased in 2008.
- (2) Production through September 2008. We signed a 10-year operating lease contract for Itabrasco's pellet plant in October 2008.
- (3) Production through May 2008. We signed a five-year operating lease contract for Kobrasco's pellet plant in June 2008.
- (4) Production through April 2008. We signed a 30-year operating lease contract for Nibrasco's two pellet plants in May 2008.
- (5) Production figures for Hispanobras and Samarco have not been adjusted to reflect our ownership interest.

The Group complies with all rules and regulations (if applicable) regarding transfer pricing in the supply of iron ore requirements to its wholly-owned pellet plants and joint ventures.

## Iron ore and iron ore pellets

#### Sales

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 2009, China accounted for 56.8% of our iron ore and iron ore pellet shipments, and Asia as a whole accounted for 72.7%. Europe accounted for 13.4%, followed by Brazil with 10.2%. Our 10 largest customers collectively purchased 96.6 million metric tons of iron ore and iron ore pellets from us, representing 39% of our iron ore and iron ore pellet shipments in 2009 and 38% of our total iron ore and iron ore pellet revenues that year. In 2009, no individual customer accounted for more than 10.0% of our iron ore and iron ore pellet shipments.

In 2009, the Asian market (mainly Japan and South Korea) 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.

We strongly emphasise 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 meeting their specific needs. Using our expertise in mining, agglomeration and iron-making processes, we search for technical solutions that will balance the best use of our mining assets and the satisfaction of our customers. We believe that our ability to provide customers with a total iron ore solution and the quality of our products are very important advantages that help 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 sales office located in St. 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.

## Pricing

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. Iron ore and iron ore pellets are priced according to 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.

In general, our iron ore sales are made pursuant to long-term supply contracts. Since April 2010, we have reached agreements on a new iron ore pricing system with our customers around the world based on short-term market references and price changes on a quarterly basis. These agreements, some of which are permanent and some of which are provisional, correspond to 100% of sales volumes under contracts. Previously, a majority of our contracts provided for annual price adjustments.

China's iron ore imports in 2009 reached an all-time high of 627.8 million metric tons, an increase of 41.4% on a year-on-year basis, driven by growth in steel production and increasing reliance on imported iron ore.

The increase in capacity utilisation rates of the steel industry in Japan, Korea, Brazil and Europe, although somewhat below the levels before the global economic downturn in 2009, together with large import volumes in China, has produced a change in the global iron ore market from surplus supply to excess demand.

## Competition

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. 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, reducing consumption of coke and increasing productivity in blast furnaces, which is particularly important during periods of high demand. When the market is very strong, our quality differential is in many cases more valuable to customers than a freight differential. Second, steel companies often develop sales relationships based on a reliable supply of a specific mix of iron ore and iron ore pellets. We have a customer-oriented marketing policy and place specialised personnel in direct contact with our customers to help determine the blend that best suits the needs of 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 low-cost freight portfolio, aimed at enhancing our ability to offer our products in the Asian market at competitive prices and to increase our market share. To

support this strategy, we ordered new ships, purchased used vessels and entered into medium- and long-term freight contracts.

We are competitive in the European market not only for the same reasons we are competitive in Asia, but also due to the proximity of our port facilities to European customers.

In 2008, we had a share of approximately 32.8% of the total volume of iron ore traded in the seaborne market, and in 2009, this declined to approximately 26.1% due to the severe impact of the global recession in the steel industry in Brazil and Europe, two major markets for the sale of our iron ore.

The Brazilian iron ore market is also competitive. There are several small iron ore producers and new companies with developing projects. At the same time, there are vertically integrated steel companies. 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.

## Manganese ore

We conduct our manganese mining operations in Brazil directly and through our wholly-owned subsidiaries, Vale Manganês and Urucum.

Our

	shareho	lding
Location	<u>Voting</u>	Total
	(%)	)
Brazil: Pará and Minas Gerais	100	100
Brazil: Mato Grosso do Sul	100	100
	<u>Location</u> Brazil: Pará and Minas Gerais Brazil: Mato Grosso do Sul	(%) Brazil: Pará and Minas Gerais 100

#### Note:

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

Our mines produce three types of 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 electricity suppliers.

The following table sets forth information about our manganese production.

		ye	ction f ar end Decem	ed		Production for the six months ended 30 June	Production for the nine months ended 30 September
Mine	<u>Type</u>		lion me	_	Recovery rate <sup>(3)</sup> (%)	2010	2010
			tons)				
Azul <sup>(1)</sup>	Open-pit	0.9	2.0	1.4	62.4	0.8	1.2
Morro da Mina	Open-pit	0.1	0.1	0.1	93.2	0.0	0.0
Urucum <sup>(2)</sup>	Underground	0.3	0.2	0.2	83.0	0.1	<u>0.1</u>
Total		1.3	2.4	1.7		0.9	1.4

#### Notes:

<sup>(1)</sup> Given the need to prioritise 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 Energia S.A. for its plant in Corumbá, in the Brazilian state of Mato Grosso do Sul.
- (3) Recovery rate is prepared by reference to the period preceding 1 January 2010.

## Ferroalloys

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

Our

	shareho percen	olding
Location	Voting	Total
	(%	)
Minas Gerais and Bahia, Brazil	100	100
Mato Grosso do Sul, Brazil	100	100
Dunkerque, France	100	100
Mo I Rana, Norway	100	100
	Location  Minas Gerais and Bahia, Brazil  Mato Grosso do Sul, Brazil  Dunkerque, France  Mo I Rana, Norway	Location Shareho percent Voting (%)  Minas Gerais and Bahia, Brazil 100  Mato Grosso do Sul, Brazil 100  Dunkerque, France 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 4.8% of our total consumption in 2009. The electricity supply for our ferroalloy plant in Dunkerque, France and Mo I Rana, Norway are provided through long-term contracts.

The following table sets forth information about our ferroalloys production.

	Production for the year ended 31 December			Production for the six months ended 30 June	Production for the nine months ended 30 September
Company	2007	2008	2009	2010	2010
			(t	housand metric tons)	
Vale Manganês <sup>(1)</sup>	288	288	99	102	152
Urucum <sup>(2)</sup>	22	20	0	0	0
Vale Manganèse France <sup>(3)</sup>	103	55	45	67	103
Vale Manganese Norway A.S	129	112	79	_54	_80
Total	542	475	223	<u>223</u>	<u>335</u>

#### Notes

- (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.
- (2) Urucum has one plant in Corumbá in the Brazilian state of Mato Grosso do Sul, whose operation was suspended subsequent to a review of its production operations in December 2008. The reasons for it ceasing to produce were purely concerned with its present economic viability given the level of demand for its output in prevailing market circumstances.
- (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 was restarted in September 2009.

#### Manganese ore and ferroalloys

## Sales and competition

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

The ferroalloy market is characterised 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.

## Pricing

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 conducted mainly on a spot or quarterly basis. Prices for ferroalloys are determined on a quarterly basis.

## Pig iron

We conduct a pig iron operation in northern Brazil. This operation was conducted through our wholly-owned subsidiary, Ferro-Gusa Carajás S.A. until April 2008, when it was merged into our Company.

We utilise two conventional mini-blast furnaces to produce pig iron, using iron ore from our Carajás mines in northern Brazil. The charcoal source is exclusively from eucalyptus trees grown in a cultivated forest. In July 2009, we sold this forest to Suzano Papel e Celulose but retained a sufficient wood inventory to keep the mini blast furnaces operating through the first half of 2012.

Revenues from sales of pig iron accounted for only 0.2% of our total revenue in 2009.

## Coal

## **Operations**

We produce metallurgical and thermal coal through our subsidiary, Vale Australia, which operates coal assets in Australia through wholly-owned subsidiaries and unincorporated joint ventures, and thermal coal through our subsidiary, Vale Colombia.

We also have a minority interest in two Chinese companies, Henan Longyu Energy Resources Co., Limited (Longyu) and Shandong Yankuang International Coking Company Ltd. (Yankuang), as shown in the table below.

Company	Business	Location	Our shareholding percentage (%)	<u>Partners</u>
Vale Australia		Australia:		
Integra Coal	Thermal and metallurgical coal	Hunter Valley, New South Wales	61.2	Nippon Steel Corporation (NSC), JFE Steel Corporation (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 Resources Ltd.
Broadlea	Thermal and metallurgical coal	Bowen Basin, Queensland	100	_
Vale Colombia	3	Colombia: El Hatillo, Cesar Department	100	_
Longyu	Coal and other related products	China: Henan Province	25.0	Yongmei Group Co., Ltd. (formerly Yongcheng Coal & Electricity (Group) Co., Ltd.) Shanghai Baosteel International Economic & Trading Co., Ltd. and other minority shareholders
Yankuang	Metallurgical coke and methanol	China: Shandong Province	25.0	Yankuang Group Co., Ltd. and Itochu Corporation

#### Australia

Integra Coal Operations (underground and open-cut)

The Integra Coal Operations are located 10 kilometres north-west of Singleton in the Hunter Valley of New South Wales, Australia. 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) and loaded onto trains at a purpose-built rail loadout facility for transport to the port of Newcastle, New South Wales, Australia.

## Carborough Downs

Carborough Downs is located in the Central Bowen Basin in central Queensland, Australia, 15 kilometres east of the township of Moranbah and 180 kilometres 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. The Leichardt seam is currently our main target for development and constitutes 100% of the current reserve and resource base. Carborough Downs coal is processed at the Carborough Downs CHPP, which operates seven days per week. The product is loaded onto trains at a rail loadout facility and transported 160 kilometres to the Dalrymple Bay Coal Terminal, Queensland, Australia.

## 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 sulphur contents. The Isaac Plains mines produce both metallurgical coal and thermal coal. Coal is processed at the Isaac Plains CHPP and transported 172 kilometres by railway to the Dalrymple Bay Coal Terminal.

#### Broadlea

Broadlea is an open-cut operation located just north of Carborough Downs' underground mine, consisting of a collection of small economic coal deposits. Broadlea was mined using the truck-and-shovel method, and product coal was toll-washed at the Carborough Downs CHPP and transported 172 kilometres by railway to the Dalrymple Bay Coal Terminal in Queensland, Australia. At the end of 2009, Broadlea ceased operations and underwent maintenance due to increasing unit costs. The mine's economic viability will undergo regular review to determine the potential recommencement of operations.

#### Colombia

#### El Hatillo

The El Hatillo thermal coal mine is located in the central portion of the Cesar Department, 210 kilometres southeast of Santa Marta, Colombia. The concession area is adjacent to the town of La Loma.

#### Production

The following table sets forth information on our coal production:

		ende	tion for th d 31 Dece		Production for the six months ended 30 June	Production for the nine months ended 30 September	
Operation	Mine type	<b>2007</b> <sup>(1)</sup>	2008	2009	2010	2010	
				(the	ousand metric tons)		
Thermal coal:							
El Hatillo <sup>(2)</sup>	Open-cut	_	_	1,143	1,331	2,161	
Integra Coal <sup>(3)</sup>	Open-cut	255	557	702	122	236	
Isaac Plains <sup>(4)</sup>	Open-cut	171	147	551	186	299	
Broadlea	Open-cut	14	582	497	<u>165</u>	<u> 165</u>	
Total thermal coal		440	1,286	2,893	1,804	2,861	
Metallurgical coal:					<del></del>		
Integra Coal <sup>(3)</sup>	Underground and open-cut	1,214	1,747	1,184	572	868	
Isaac Plains <sup>(4)</sup>	Open-cut	249	382	487	237	466	
Carborough	,						
Downs <sup>(5)</sup>	Underground	269	429	604	560	899	
Broadlea	Open-cut	32	249	252	101	101	
Total metallurgical							
coal		1,764	2,807	2,527	<u>1,470</u>	<u>2,334</u>	

#### Notes:

<sup>(1)</sup> We acquired AMCI HA, the previous owner of these mines, in April 2007. Figures for 2007 include production from May to December 2007 only.

<sup>(2)</sup> We acquired El Hatillo in the first quarter of 2009. Figures for 2009 include production from April to December only.

<sup>(3)</sup> These figures correspond to our 61.2% equity interest in Integra Coal, an unincorporated joint venture.

<sup>(4)</sup> These figures correspond to our 50% equity interest in Isaac Plains, an unincorporated joint venture.

<sup>(5)</sup> These figures correspond to our 80% equity interest in Carborough Downs, an unincorporated joint venture.

## Sales

Sales from our coal operations in Australia are basically destined for eastern Asia. In 2009, our Chinese coal joint ventures directed their sales mainly to the Chinese domestic market. The coal sales from our Colombian operations are primarily focused in Europe and the United States.

Our Integra Coal operations in New South Wales are similar to many in the Hunter Valley, with the vast majority of production being consumed in Northern Asia. Our operations in Queensland began production in late 2006.

## Pricing

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 in emerging 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.

## Competition

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, underpins strong demand for metallurgical coal. Increase in metallurgical coal supply may, however, be subject to major port and rail constraints in some of the countries in which the major suppliers are located.

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 in emerging economies. Large existing coal-fired power plants with long life cycles take a relatively long period to replace or upgrade, ensuring a high level of demand for thermal coal in countries with high electricity 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 key competitive strengths include the strategic geographic location of our current and future supply bases and the level of our production cash costs relative to several other coal producers.

#### **Base metals**

#### Nickel

#### **Operations**

We conduct our nickel operations primarily through our wholly-owned subsidiary, Vale Canada. Vale Canada 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 and Europe	Canada: Sudbury, Ontario	Fully integrated mines, mill, smelter and refinery (producer of intermediates and finished nickel and byproducts)
	Canada: Thompson,	Fully integrated mines, mill, smelter and refinery
	Manitoba Canada: Voisey's Bay,	(producer of finished nickel and by-products)  Mine and mill (producer of nickel concentrates and by-
	Newfoundland and Labrador	products)
	United Kingdom: Clydach, Wales	Stand-alone nickel refinery (producer of finished nickel)
Asia and the South Pacific	Indonesia: Sorowako, Sulawesi <sup>(1)</sup>	Mining and processing operations (producer of nickel matte, an intermediate product)
	New Caledonia: Southern Province <sup>(2)</sup>	Mining and processing operations (producer of nickel oxide and cobalt)
	Japan: Matsuzaka <sup>(3)</sup>	Stand-alone nickel refinery (producer of finished nickel)
	Taiwan: Kaoshiung <sup>(4)</sup>	Stand-alone nickel refinery (producer of finished nickel)
	China: Dalian, Liaoning Province <sup>(5)</sup>	Stand-alone nickel refinery (producer of finished nickel)
	South Korea: Onsan <sup>(6)</sup>	Stand-alone nickel refinery (producer of finished nickel)

#### Notes:

- (1) Operations conducted through our 59.1%-owned subsidiary, PTI.
- (2) Operations conducted through our 74%-owned subsidiary, Vale Nouvelle-Calédonie S.A.S.
- (3) Operations conducted through our 76%-owned subsidiary, Vale Japan Limited.
- (4) Operations conducted through our 49.91%-owned subsidiary, Taiwan Nickel Refining Corporation.
- (5) Operations conducted through our 98.27%-owned subsidiary, Vale Nickel (Dalian) Co., Ltd.
- (6) Operations conducted through Korea Nickel Corporation, in which we have a 25% equity interest.

For information about strikes that have affected some of our Canadian operations and their ultimate settlement, where applicable, see, in addition to the below, the section in this Listing Document headed "Business — Employees and labour relations".

## North America and Europe

## Sudbury operations

Our long-established mines in Sudbury, Ontario, are primarily underground operations with nickel sulphide ore bodies. These ore bodies also contain co-deposits of copper, cobalt, PGMs, 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 nickel concentrates 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 2009, we produced 31% of the electric energy consumed in Sudbury at our hydroelectric power plants there. The remaining electricity was purchased from Ontario's provincial electricity grid.

In July 2009, unionised maintenance and production employees at our Sudbury operations went on strike after rejecting a settlement offer for a new three-year collective bargaining agreement. On 8 July 2010, we announced that new five-year collective bargaining agreements were ratified with United Steelworkers (USW) Locals 6500 and 6200 representing production and maintenance employees in Sudbury and Port Colborne.

## Thompson operations

Our long-established mines in Thompson, Manitoba, are primarily underground operations with nickel sulphide 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 operation in Newfoundland and Labrador is comprised of Ovoid, an open-pit mine, and deposits with the potential for underground operations at a later stage. We mine nickel sulphide ore bodies, 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). The electricity requirements of our Voisey's Bay operations are supplied through diesel generators.

In August 2009, our unionised employees at our Voisey's Bay operations went on strike after rejecting a settlement offer for a new three-year collective bargaining agreement. During the first quarter of 2010, we resumed production at the Voisey's Bay Ovoid mine and the mill, which supplies nickel concentrates to our operations in Thompson, Manitoba and Sudbury, Ontario and copper concentrates to customers in Europe.

## Clydach operations

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

#### Asia and the South Pacific

## Sulawesi operations

Our subsidiary, PTI, operates an open-cast mining area and related processing facility in Sorowako on the Island of Sulawesi, Indonesia. PTI 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, PTI sells 80% of its production to our wholly-owned subsidiary Vale Canada and 20% of its production to Sumitomo Metal Mining Co., Ltd.. PTI is a public company whose shares are traded on the Indonesia Stock Exchange. As at the Latest Practicable Date, we held 59.1% of its share capital, Sumitomo Metal Mining Co., Ltd. held 20.1%, 20.1% was publicly held and 0.7% was held by others.

Energy costs are a significant component of our nickel production costs for the processing of lateritic ores at our PTI operations in Indonesia. A major part of the electric furnace power requirements of PTI is supplied at low cost by its two hydroelectric power plants on the Larona River, Larona and Balambano. PTI has thermal generating facilities in order to supplement its hydroelectric power supply with a source of energy that is not subject to hydrological factors. In 2009, the hydroelectric power plants provided 96% of the electric energy consumed at our Indonesian operations, and the thermal generators provided the remainder.

We have committed to maintain a minimum 20% public float of PTI shares. In furtherance of this commitment, in August 2009, we sold, for US\$88 million, 2.07% of PTI's outstanding shares (amounting to 205,680,000 shares).

## Asian refinery operations

Our 76%-owned subsidiary, Vale Japan Limited, operates a refinery in Matsuzaka, which produces intermediate and finished nickel products, primarily using nickel matte sourced from PTI. Vale Japan Limited is a private company. The minority interest is held by Sumitomo Metal Mining Co., Ltd. (13%), Mitsui & Co., Ltd. (7%) and other Japanese companies (4%).

We also operate or have investments in nickel refining operations in Taiwan through our 49.91% stake in Taiwan Nickel Refining Corporation, China through our 98.27% interest in Vale Nickel (Dalian) Co., Ltd. and South Korea through our 25% stake in Korea Nickel Corporation. These joint ventures 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 Japan Limited and our Sudbury operations. These refining operations are expected to start receiving nickel oxide from our Vale New Caledonia (the former Goro) project this year.

## New Caledonian operations

We are in the initial stage of ramping up our Vale New Caledonia (the former Goro) nickel project in New Caledonia in the South Pacific. Vale New Caledonia utilises a high pressure acid leach process to treat laterite ores. The construction of the project is complete and commissioning is underway. We announced production of our first nickel product at Vale New Caledonia on 9 August 2010. We expect to ramp-up Vale New Caledonia over a three-year period to reach nominal production capacity of 60,000 metric tons per year of nickel contained in nickel oxide and 4,600 metric tons of cobalt.

## Production

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

	Production for the year ended 31 December					Production for the six months ended 30 June						
		2007		2008			2009			2010		
		Grad	de		Grad	de	Grade					
	Production	% Copper	% Nickel	Production	% Copper	% Nickel	Production	% Copper	% Nickel	Production	% Copper	% Nickel
				(thou	sands of n	netric to	ns, except pe	rcentages	<b>(</b> )			
Ontario operating mines												
Copper Cliff North	1,078	0.92	0.84	1,165	1.01	1.01	524	0.96	1.06	0.2	1.43	1.14
Copper Cliff South <sup>(1)</sup>	883	1.71	1.46	771	1.67	1.48	78	1.45	1.40	0.0	0.0	0.0
Creighton	963	1.62	2.08	1,001	1.56	2.14	395	1.57	1.82	94.4	3.41	3.84
Stobie	2,850	0.68	0.72	2,892	0.65	0.72	1,198	0.64	0.72	72.9	0.60	0.69
Garson	692	1.58	1.59	840	1.72	1.69	328	1.93	1.45	22.2	3.15	0.84
Coleman	1,408	2.75	1.74	1,425	2.66	1.62	624	3.28	1.64	200.2	2.91	1.62
Gertrude	12	0.25	0.66	124	0.29	0.72		_	_			
Total Ontario												
operations	7,887	1.39%	1.25%	8,219	1.36%	1.26%	3,145	1.49	1.19	389.9	2.61	1.62
Manitoba operating mines										<del></del>		
Thompson	1,380	_	1.83	1,320	_	1.77	1,270	_	1.98	742		1.68
Birchtree	1,164	_	1.52	971	_	1.51	769	_	1.48	432		1.38
Total Manitoba												_
operations	2,545	_	1.69%	2,291	_	1.66%	2,040	_	1.79	1,174		1.57
operations	2,343	_	1.05 /0	2,231	_	1.00 /0	2,040	_	1.75	1,174	_	1.37
Voisey's Bay operating mines												
Ovoid	2,147	2.47	3.74	2,385	2.38	3.50	990	2.57	3.20	577	2.47	3.43
Total Voisey's Bay												
operations	2,147	2.47%	3.74%	2,385	2.38%	3.50%	990	2.57	3.20	577	2.47	3.43
Substitute of the substitute of												_
Sulawesi operating mining												
<i>areas</i> Sorowako	4.615		2.03	4,258		2.08	3,598		2.02	2.198		1.93
Pomalaa <sup>(2)</sup>	645	_	2.30	4,236	_	2.29	3,390	_	2.02	0.0		0.0
		_	2.50	417	_	2.29		_	_			0.0
Total Sulawesi												
operations	5,260	_	2.06%	4,675	_	2.10%	3,598	_	2.02	2,198		1.93

#### Notes:

- (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 nickel production, including: (i) nickel refined through our facilities, (ii) nickel further refined into specialty products, and (iii) intermediates designated for sale. The numbers below are stated on an ore-source basis.

			tion for thed 31 Decem	,	Production for the six months ended 30 June	Production for the nine months ended 30 September
Mine	Туре	2007	2008	2009	2010	2010
				(tho	usand metric tons)	
Sudbury <sup>(1)</sup>	Underground	70.7	85.3	43.6	8.0	14.0
Thompson <sup>(1)</sup>	Underground	29.8	28.9	28.8	16.8	22.0
Voisey's Bay <sup>(2)</sup>	Open-pit	58.9	77.5	39.7	7.1	17.0
Sorowako,						
Sulawesi <sup>(3)</sup>		75.8	68.3	68.8	37.1	59.0
External <sup>(4)</sup>	_	12.7	15.4	5.8	0.5	3.0
Total <sup>(5)</sup>		247.9	275.4	186.7	<u>69.5</u>	<u>114.0</u>

#### Notes:

- (1) Primary nickel production only (and does not include secondary nickel from unrelated parties).
- (2) Includes finished nickel produced at our Sudbury and Thompson operations, as well as some finished nickel produced by unrelated parties under toll-smelting and toll-refining arrangements.
- (3) We have a 59.1% interest in PTI, which owns the Sorowako mines, and these figures include the minority interests.
- (4) Finished nickel processed at our facilities using feeds purchased from unrelated parties.
- (5) Excludes finished nickel produced under toll-smelting and refining arrangements covering purchased intermediates with unrelated parties. Unrelated-party tolling of purchased intermediates was 14.2 thousand metric tons in 2007, 7.5 thousand metric tons in 2008 and 5.2 thousand metric tons in 2009.

#### Sales

Our nickel customers are broadly distributed on a global basis. In 2009, 65.3% of our total nickel sales were delivered to customers in Asia, 21.9% to North America, 11.7% to Europe and 1.1% to other markets. We have short-term fixed-volume contracts with customers for the majority of our expected annual nickel sales. These contracts generally provide stable demand for a significant portion of our annual production.

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% to 6% nickel, (iii) ferro-nickel has 10% to 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 2009, the principal end-use applications for nickel were:

- austenitic stainless steel (60 to 65% of global nickel consumption);
- non-ferrous alloys, alloy steels and foundry applications (15 to 20% of global nickel consumption);
- nickel plating (9% of global nickel consumption); and

 specialty applications, such as batteries, chemicals and powder metallurgy (5 to 10% of global nickel consumption).

In 2009, the majority of our refined nickel sales were made into non-stainless steel applications. As a result of our focus on such higher-value segments, our average realised nickel prices for refined nickel have typically 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 London (England), St. Prex (Switzerland), Tokyo (Japan), Hong Kong, Shanghai (China), Kaohsiung (Taiwan), Bangkok (Thailand) and Bridgetown (Barbados).

## Pricing

Nickel is an exchange-traded metal, listed on LME, that is mainly used to produce stainless steel. 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. Demand for nickel is strongly affected by stainless steel production, which accounts on average for 60% to 65% of global nickel consumption. Nickel demand for sources of consumption other than stainless steel production represents 35% to 40% of global nickel consumption.

Primary nickel (including ferro-nickel, nickel pig iron and nickel cathode) and secondary nickel (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 price and availability. In 2009, the stainless steel scrap ratio fell from 49% to 43%. Nickel pig iron production is estimated to have reached 7% of the global supply of primary nickel, compared to 5% in 2008.

## Competition

The global nickel market is highly competitive. Our key competitive strengths include the relatively long production life of our mines, our low production cash costs relative to other nickel producers, and our 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. Our nickel deliveries represented 17% of global consumption for primary nickel in 2009.

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). In recent years, secondary nickel has accounted for about 43% to 49% of total nickel used for stainless steel, and primary nickel has accounted for about 51% to 57%. 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 and Indonesia) that is suitable primarily for use in stainless steel production. In 2009, Chinese nickel pig iron and ferro-nickel production totaled an estimated 94,500 metric tons, representing 7% 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.

## Copper

## **Operations**

We conduct our copper operations in Brazil directly and through our subsidiary, Vale Canada, in Canada.

		shareho percen	olding
Company	Location	Voting	Total
		(%	)
Vale	Brazil	_	_
Vale Canada	Canada	100	100

#### Brazilian operations

Our Sossego copper mine in Canaã dos Carajás, in the state of Pará, has two main copper ore bodies, Sossego and Sequeirinho. 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 deliver the concentrate to a storage terminal in Parauapebas by trucks 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 a 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 completed the construction of the Usina Hidrometalúrgica de Carajás plant, located at the Sossego mining site, to test the application of hydro-metallurgical technology for the industrial-scale processing of copper concentrate to produce copper cathode.

## 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. For information about strikes that have affected some of our Canadian operations and their ultimate settlement (where applicable), see the section in this Listing Document headed "Business — Employees and labour relations".

## Other operations

We have acquired a 50% interest in a joint venture with African Rainbow Minerals Limited. The joint venture will develop and operate the assets of TEAL Exploration & Mining Incorporated (TEAL). TEAL has two copper projects in the African copperbelt, Konkola North and Kalumines, which we believe could together represent a nominal production capacity of 65,000 metric tons of copper per year in the next few years, and an extensive copper exploration portfolio.

#### Production

The following table sets forth information on our copper production.

		Production for the year ended 31 December		Production for the six months ended 30 June	Production for the nine months ended 30 September	
Mine	Туре	2007	2008	2009	2010	2010
				(t	housand metric tons)	
Brazil:						
Sossego	Open-pit	118	126	117	55	87
Canada:						
Sudbury	Underground	113	115	42	6	20
Voisey's Bay	Open-pit	42	55	24	7	17
Thompson	Underground	1	1	1	0	1
External <sup>(1)</sup>	_	9	14	_14	_5	
Total		284	312	198	<u>73</u>	<u>131</u>

#### Note

#### Sales

Copper concentrates from Sossego are sold under medium- and long-term contracts to copper smelters in South America, Europe and Asia. We have long-term off-take agreements to sell the entire production of copper concentrate from the first phase of the Salobo project to smelters. Electrowon copper from UHC is mainly sold in Brazil under short-term sales agreements. We have long-term copper supply agreements 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.

## Pricing

Growth in copper demand in recent years has been driven primarily by imports by China. Copper prices are determined on the basis of (i) prices of copper metal on terminal markets, such as LME and 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.

## Competition

The global copper cathode market is highly competitive. The main 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. Our participation in the global copper cathode market is marginal.

Copper concentrate and copper anode are intermediate 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.

<sup>(1)</sup> We process copper at our facilities using copper ore purchased from unrelated third parties.

In the copper concentrate market, the main producers are mining companies located in South America, Indonesia and Australia, while consumers are principally 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 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.

## PGMs and other precious metals

As by-products of our Sudbury nickel operations in Canada, we recover significant quantities of PGMs, 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 2009, PGM concentrates from our Sudbury operations supplied about 36% of our PGM production.

The following table sets forth information on our precious metals production.

		Production for the year ended 31 December		Production for the six months ended 30 June	Production for the nine months ended 30 September	
Mine <sup>(1)</sup>	Type	2007	2008	2009	2010	2010
			(thou	usand tro	oy ounces)	
Sudbury:						
Platinum	Underground	140	166	103	7	10
Palladium	Underground	191	231	152	18	25
Gold	Underground	75	85	49	10	15

#### Note:

## Cobalt

We recover significant quantities of cobalt as a by-product of our Canadian nickel operations. In 2009, we produced 359 metric tons of cobalt from our Ontario operations, 181 metric tons of cobalt at our Thompson nickel operations and 971 metric tons of cobalt at Voisey's Bay, all in Canada. For information about strikes that have affected some of our Canadian operations and their ultimate settlement (where applicable), see the section in this Listing Document headed "Business — Employees and labour relations".

We expect to increase our production of cobalt as we increase nickel production in New Caledonia at the Vale New Caledonia (the former 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. Cobalt metal is used in the production of various alloys, particularly for aerospace applications, as well as the manufacture of cobalt-based chemicals.

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

The following table sets forth information on our cobalt production.

		Production for the year ended 31 December			Production for the six months ended 30 June	Production for the nine months ended 30 September
Mine	Туре	2007	2008	2009	2010	2010
					(metric tons)	
Sudbury	Underground	727	804	359	6	45
Thompson	Underground	179	168	181	125	159
Voisey's Bay		1,239	1,695	971	175	235
External <sup>(1)</sup>	_	379	<u>161</u>	64	2	3
Total		2,524	2,828	1,575	308	<u>442</u>

#### Note:

#### Fertilizer nutrients

#### Potash

We conduct our potash operations through our Company in Brazil. We lease Taquari-Vassouras, 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.

The following table sets forth information on our potash production.

		Production for the year ended 31 December				Production for the six months ended 30 June	Production for the nine months ended 30 September	
Mine	Type	2007	2008	2009	Recovery rate <sup>(1)</sup>	2010	2010	
		(thou	usand m tons)	netric	(%)	(thousand	metric tons)	
Taquari- Vassouras	Underground	671	607	717	87.6	338	493	

<sup>(1)</sup> Recovery rate is prepared by reference to the period preceding January 2010.

#### Phosphates, nitrogen and others

Our subsidiary, Vale Fertilizantes (as to which see the section in this Listing Document headed "Business — Recent developments and future projects — Fertilizer nutrients" below), operates three phosphate rock mines: Catalão, in the state of Goiás, Tapira and Patos de Minas, both in the state of Minas Gerais. In addition, it is developing Salitre, a greenfield project in Patrocínio, in the state of Minas Gerais. Vale Fosfatados S.A. owns two phosphate rock mines, Araxá, in the state of Minas Gerais, and Cajati, in the state of São Paulo. Vale Fosfatados S.A. also has four processing plants for the production of phosphates fertilizers, located at (a) Araxá, state of Minas Gerais; (b) Cajati, state of São Paulo; (c) Cubatão, state of São Paulo; and (d) Guará, state of São Paulo.

## Sales

All potash sales from the Taquari-Vassouras mine are to the Brazilian market.

Vale Fertilizantes is a producer of phosphate rock, phosphate fertilizers (P), which include monoammonium phosphate (MAP), diammonnium phosphate (DAP), triple superphosphate (TSP) and single superphosphate (SSP), and nitrogen (N) fertilizers, which include ammonium nitrate and urea.

<sup>(1)</sup> These figures do not include unrelated-party tolling of feeds purchased from unrelated parties.

## Pricing

Demand for fertilizers is driven by agricultural production, which is a function of food demand and driven mainly by population growth, age distribution, economic development and dietary preferences. Demand is also driven by bio-fuel production, which is mainly influenced by economic growth, competitiveness in relation to fossil fuels and environmental regulations.

Price negotiations for fertilizers are mainly held on a spot basis following international benchmarks, except for some large importers, such as China and India, who often sign annual contracts. Seasonality is an important factor for price determination throughout the year, since agricultural production in each region depends on climatic conditions for crop production.

## Competition

The potash industry is highly concentrated, with the eight major producers accounting for more than 80% of total world production capacity.

Most phosphate concentrate is consumed locally by downstream integrated producers, with the seaborne market accounting for 15% of total phosphate rock production. The phosphate rock imports supply non-integrated producers of phosphate fertilizer products such as single superphosphate (SSP), triple superphosphate (TSP) and monoammonium phosphate (MAP). Major phosphate rock exporters are concentrated in North Africa, which are mainly state-owned companies.

## Mining concessions and other related rights

In order to conduct mining activities, we generally require some form of governmental permits, which differ in form depending on the jurisdiction but may include concessions, licences, claims, tenements, leases or permits (together, **concessions**). Some concessions are of indefinite duration, but many have specified expiration dates, and may not be renewable. The legal and regulatory regime governing concessions differs among jurisdictions, often in important ways. For example in many jurisdictions, including Brazil, mineral resources belong to the state and may only be extracted pursuant to a concession. In other jurisdictions, including Canada, a substantial part of our mining operations is conducted pursuant to leases, often from government agencies.

The table below summarises the mining concessions and other related rights pertaining to our Material Reserves. The Group's title to those concessions and rights as at the Latest Practicable Date was supported by legal opinions from local counsel in the jurisdictions where the mines subject to those concessions are located. Those details are summarised together with concessions and rights relating to the Group's fertilizer nutrients mines. In addition to the concessions described below, we have exploration licences covering 5.1 million hectares in Brazil and 16.1 million hectares in other countries.

Mining complex/Mine	Type of mine	Approximate area	Holder of mining, land use and other related rights	Description of mining, land use and other related rights
		(hectares)		(Concession reference numbers appear in parentheses)
Iron ore				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Brazil				
Southeastern System				
Itabira Complex, Minas Gerais				
Conceição and Minas do Meio (Onça Periquito				
and Chacrinha)	Open pit	10,559	Vale	Concession/mining rights: (a) scope: mining group n. 930.641/1989, which consolidates: Cauê-Dois Córregos-Conceição mine (000.577/1936), Onça- Periquito mine (002.354/1941) and Chacrinha mine (002.355/1941) <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Minas Centrais Complex, Minas Gerais				
Agua Limpa				
(Including Morro Agudo and Cururu)	Open pit	494	Baovale Mineração S.A. (a company in which Vale owns 100% of the voting shares and 50% of the total shares)	Concession/mining rights: (a) scope: Mining Concession 006.498/1961 leased to Vale <sup>(1)</sup> (b) term: 2005 to 2021 (renewable for an additional period of up to 20 years)
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(4)</sup> (b) term: indefinite <sup>(5)</sup>
Gongo Soco	Open pit	288	Vale	Concession/mining rights: (a) scope: Mining Concession 001.791/1961 <sup>(1)</sup> (b) term: indefinite. <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>

Mining complex/Mine	Type of mine	Approximate area (hectares)	Holder of mining, land use and other related rights	Description of mining, land use and other related rights (Concession reference numbers
Brucutu	Open pit	447	Vale	appear in parentheses)  Concession/mining rights: (a) scope: Mining Concession 008.337/1960 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Apolo	Open pit	1,904	Vale and Minerações Brasileiras Reunidas S.A. (a company 92.99% of whose shares are held by Vale)	Concession/mining rights: (a) scope: Mining Concession 007.182/1960 (this mining concession is registered in the name of Sociedade de Mineração Estrela de Apolo S.A., which was incorporated by Vale in January 2010), 004.099/1967, 800.299/1975 (Vale) and 003.071/1962 (Minerações Brasileiras Reunidas S.A.) <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Mariana Complex, Minas Gerais				
Alegria	Open pit	990	Vale	Concession/mining rights: (a) scope: Mining Concession 006.499/1961 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Fábrica Nova	Open pit	1,072	Vale	Concession/mining rights: (a) scope: Mining Concessions 002.329/1935 and 001.076/1967 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>

Mining complex/Mine	Type of mine	Approximate area	Holder of mining, land use and other related rights	Description of mining, land use and other related rights
		(hectares)		(Concession reference numbers appear in parentheses)
Fazendão	Open pit	637	Vale	Concession/mining rights: (a) scope: Mining Concessions 001.183/1958 and 001.184/1958 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
Corumba, Mato Grosso do Sul				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Urucum	Open pit	2,000	Urucum Mineração S.A.	Concession/mining rights:
oracam	Орен ри	2,000	(a wholly-owned subsidiary of Vale)	(a) scope: Mining Concessions 573.801/1940, 573.802/1940, 573.803/1940 and 573.804/1940 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Samarco Complex, Minas Gerais				
Samarco Norte Centro and				
Samarco Sul	Open pit	1,420	Samarco Mineração S.A.	Concession/mining rights: (a) scope: mining group n. 930.706/1982 (which includes processes 001.721/1967 and 002.264/1967) and Mining Concession 002.265/1967 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Southern System				
Minas Itabiritos, Minas Gerais				
Segredo	Open pit	51	Vale	Concession/mining rights: (a) scope: Mining Concession 291.601/1935 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
João Pereira	Open pit	962	Vale	Concession/mining rights: (a) scope: Mining Concession 000.890/1953 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>

Mining complex/Mine	Type of mine	Approximate area	Holder of mining, land use and other related rights	Description of mining, land use and other related rights
		(hectares)		(Concession reference numbers appear in parentheses)
Sapecado	Open pit	301	Minerações Brasileiras Reunidas S.A.	Concession/mining rights: (a) scope: Mining Concessions 001.090/1957 and 830.665/1983 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Galinheiro	Open pit	2,324	Minerações Brasileiras Reunidas S.A.	Concession/mining rights: (a) scope: Mining Concessions 000.654/1938 and 004.810/1958 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Vargem Grande Complex, Minas Gerais				
Tamanduá	Open pit	254	Minerações Brasileiras Reunidas S.A.	Concession/mining rights: (a) scope: Mining Concession 003.963/1950 <sup>(1)</sup>
				(b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Capitão do Mato	Open pit	471	Minerações Brasileiras Reunidas S.A.	Concession/mining rights: (a) scope: Mining Concession 003.964/1950 <sup>(1)</sup>
				(b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Abóboras	Open pit	882	Minerações Brasileiras Reunidas S.A.	Concession/mining rights: (a) scope: Mining Concessions 004.811/1958 and 001.802/1958 <sup>(1)</sup>
				(b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Paraopeba Complex, Minas Gerais				
Jangada	Open pit	908	Minerações Brasileiras Reunidas S.A.	Concession/mining rights: (a) scope: Mining Concession 004.909/1962 <sup>(1)</sup>
				(b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope:owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>

Mining complex/Mine	Type of mine	Approximate area	Holder of mining, land use and other related rights	Description of mining, land use and other related rights
		(hectares)		(Concession reference numbers appear in parentheses)
Córrego do Feijão	Open pit	884	Vale	Concession/mining rights: (a) scope: Mining Concessions 004.757/1940 and 007.307/1956 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Capão Xavier	Open pit	1,136	Minerações Brasileiras Reunidas S.A.	Concession/mining rights: (a) scope: Mining Concession 003.484/1959 <sup>(1)</sup>
				(b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Mar Azul	Open pit	206	Minerações Brasileiras Reunidas S.A.	Concession/mining rights: (a) scope: Mining Concessions 007.855/1957 (Mineração Rio Verde Ltda.) and 000839/1966 (Mineração Onix Ltda., a wholly owned subsidiary of Minerações Brasileiras Reunidas S.A.) <sup>(1)</sup> (still registered with former holders but subject to a mining rights assignment) (b) term: indefinite <sup>(2)</sup> Land use right:
				(a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Northern System				
Carajás, Pará Serra Norte (N4W, N4E				
and N5)	Open pit	30,000	Vale	Concession/mining rights: (a) scope: Mining Concession 813.682/1969 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Serra Sul (S11)	Open pit	100,000	Vale	Concession/mining rights: (a) scope: Mining Concession 813.684/1969 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>

Mining complex/Mine	Type of mine	Approximate area	Holder of mining, land use and other related rights	Description of mining, land use and other related rights
		(hectares)		(Concession reference numbers appear in parentheses)
Serra Leste (SL1)	Open pit	9,914	Vale	Concession/mining rights: (a) scope: Mining Concession 813.687/1969 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Nickel				
Brazil	0	14 706	V-I-	Caracasia a fasinia a minhta
Onça Puma, Pará	Open pit	14,786	Vale	Concession/mining rights: (a) scope: Mining concessions 811.015/1973, 811.016/1973 and 850.650/2006 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Canada				(6)
Sudbury, Ontario	Underground	2,345	Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Unpatented Mining Claims (b) term: 2010 to 2015 <sup>(7)</sup>
	Underground	6,564	Xstrata/Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Unpatented Mining Claims (b) term: 2010 to 2015 <sup>(7)</sup>
	Underground	33	Wallbridge/Xstrata/Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Unpatented Mining Claims (b) term: 2010 to 2015 <sup>(7)</sup>
	Underground	14,026	Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Leases (b) term: 2010 to 2028 <sup>(7)</sup>
	Underground	1,026	Xstrata/Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Patented Lands (b) term: indefinite
	Underground	74	Quadra-FNX/Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Patented Lands (b) term: indefinite
	Underground	270	Other Owners/Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Patented Lands (b) term: indefinite
	Underground	88,362	Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Patented Lands (b) term: indefinite
	Underground	2,922	Vale Canada	Land use right: (a) scope: Mining Licence of Occupation (b) term: indefinite
	Underground	17	Xstrata/Vale Canada	Land use right: (a) scope: Mining Licence of Occupation (b) term: indefinite

Mining complex/Mine	Type of mine	Approximate area	Holder of mining, land use and other related rights	Description of mining, land use and other related rights
		(hectares)		(Concession reference numbers appear in parentheses)
	Underground	1,157	Vale Canada	Land use right: (a) scope: Licence of Occupation (b) term: indefinite
Thompson, Manitoba	Underground	40,720	Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Mining Claims (b) term: 2010 to 2015 <sup>(8)</sup>
	Underground	108,555	Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Order-in-Council Leases (b) term: 2010 to 2018 <sup>(8)</sup>
	Underground	488	Mystery Lake Nickel Mines Ltd. (a company 82.62% of whose shares are held by Vale Canada)	Concession/mining rights <sup>(6)</sup> : (a) scope: Order-in-Council Leases (b) term: 2010 to 2018 <sup>(8)</sup>
	Underground	33,240	Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Mineral Exploration Licence (b) term: three years <sup>(8)</sup>
	Underground	4,903	Vale Canada	Concession/mining rights <sup>(6)</sup> : (a) scope: Order-in-Council Leases (b) term: indefinite
Voisey's Bay, Newfoundland and Labrador	Open-pit	1,599	Vale Newfoundland and Labrador Limited	Concession/mining rights <sup>(6)</sup> : (a) scope: Mining Lease (b) term: 2027 <sup>(9)</sup>
	Open-pit	49,450	Vale Newfoundland and Labrador Limited	Concession/mining rights <sup>(6)</sup> : (a) scope: Mapped-Staked Licence (b) term: 2014 to 2029 <sup>(9)</sup>
	Open-pit	4,015	Vale Newfoundland and Labrador Limited	Land use right: (a) scope: Surface Lease (b) term: 2027 <sup>(9)</sup>
Indonesia Sorowako, Sulawesi	Open-cast	190,513	PTI	Concession/mining rights: (a) scope: Contract of Work dated 27 July 1968, subject to Agreement on Modification and Extension dated 15 January 1996 <sup>(10)</sup> (b) term: to 28 December 2025
				Land use right: (a) scope: land certificates covering 28,630,241 square metres (b) term: principal title valid until 13 December 2029
				Other rights, licences and consents: (a) Minister of Public Works and Electric Power Decree No. 48/KPTS/1975 concerning Grant of an Electricity Business Licence to PT International Nickel Indonesia dated 27 February 1975 (b) Port licences to build special port facilities in Balantang and Tanjung Mangkasa

Mining complex/Mine	Type of mine	Approximate area (hectares)	Holder of mining, land use and other related rights	Description of mining, land use and other related rights (Concession reference numbers
				appear in parentheses)
New Caledonia				
Vale New Caledonia, Goro, Southern Province	Open-cast	8,210.14	Vale Nouvelle — Calédonie S.A.S.	Concession/mining rights: (a) scope: 8 mining concessions (b) term: to 2016, 2048 or 2051 (as applicable)
				Land use right: (a) scope: 7,951,613 square metres held under lease by Vale Nouvelle-Calédonie S.A.S. (b) term: to 7 December 2056
Copper				
Brazil				
Carajás, Pará Sossego	Open pit	7,140	Vale	Concession/mining rights: (a) scope: Mining Concession 851.355/1991 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Salobo	Open pit	9,180	Salobo Metais S.A. (a wholly-owned subsidiary of Vale)	Concession/mining rights: (a) scope: Mining Concession 807.426/1974 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right:  (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Canada				
For concession and other rights in	Canada, see "N	ickel — Canada"		
Fertilizer nutrients  Potash  Brazil				
Taquari-Vassouras,	111	03.400	B. College	6
Sergipe	Underground	92,498	Petrobras — Petróleo Brasileiro S.A.	Concession/mining rights: (a) scope: Mining Concession 605.626/1976. leased to Vale <sup>(1)</sup> (b) term: to October 2016
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(4)</sup> (b) term: indefinite <sup>(5)</sup>

Mining complex/Mine	Type of mine	Approximate area (hectares)	Holder of mining, land use and other related rights	Description of mining, land use and other related rights (Concession reference numbers appear in parentheses)
Phosphates				appear in parentieses,
<i>Brazil</i> Araxá, Minas Gerais				
Barreiro (Minas Gerais State				
Government)	Open-pit	841	Companhia de Desenvolvimento Econômico de Minas Gerais	Concession/mining rights: (a) scope: Mining Concession 035.101/1946 leased to Vale Fosfatados S.A. (1) (b) term: to May 2027
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(4)</sup> (b) term: to May 2027
Barreiro (CBMM)	Open-pit	186	Companhia Brasileira de Metalurgia e Mineração - CBMM	Concession/mining rights: (a) scope: Mining Concession 006.746/1956 leased to Vale Fosfatados S.A. <sup>(1)</sup> (b) term: to December 2025
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(4)</sup> (b) term: to December 2025
Cajati, São Paulo	Onan nit	250	Governo do Estado de São	Concession/mining rights:
Morro da Mina	Open-pit	230	Paulo	Concession/mining rights: (a) scope: Mining Concession 001.546/1940 Leased to Vale Fosfatados S.A. <sup>(1)</sup> (b) term: to November 2023
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(4)</sup> (b) term: to November 2023
Mesquita Sampaio	Open-pit	255	Vale Fosfatados S.A.	Concession/mining rights: (a) scope: Mining Concession 003.081/1962 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite

Mining complex/Mine	Type of mine	Approximate area	Holder of mining, land use and other related rights	Description of mining, land use and other related rights
		(hectares)		(Concession reference numbers appear in parentheses)
Catalão, Goias Mina do CMC	Open-pit	903	Ultrafértil S.A. (a wholly-owned subsidiary of Vale Fertilizantes)	Concession/mining rights: (a) scope: Mining Concession 009.291/1967 <sup>(1)</sup> (b) term: 1987-2012
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(4)</sup> (b) term: indefinite
Mina do CMC	Open-pit	2	Ultrafértil S.A.	Concession/mining rights: (a) scope: Mining Concession 861.100/1981. <sup>(1)</sup> (b) term: indefinite
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite
Tapira, Minas Gerais <i>Mina de Tapira</i>	Open-pit	483	Vale	Concession/mining rights: (a) scope: Mining Concession 810.330/1968 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Mina de Tapira	Open-pit	1,371	Vale Fertilizantes	Concession/mining rights: (a) scope: Mining Concessions 810.331/1968, 812.362/1968, 821.674/1969, 816.066/1970 and 827.081/1972 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Mina de Tapira	Open-pit	947	Vale	Concession/mining rights: (a) scope: Mining Concessions 803.387/1974 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>

Mining complex/Mine	Type of mine	Approximate area	Holder of mining, land use and other related rights	Description of mining, land use and other related rights
		(hectares)		(Concession reference numbers appear in parentheses)
Mina de Tapira	Open-pit	1040	Vale Fertilizantes	Concession/mining rights: (a) scope: Mining Concessions 831.405/1997 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Patos de Minas, Minas Gerais				
Rocinha and Pirubinhas	Open-pit	1,986	Vale Fertilizantes	Concession/mining rights: (a) scope: Mining Concessions 808.115/1974 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Anitápolis, Santa Catarina	Onen nit	264	IFC Indústria de Fosfatados	Consession/mining vights
Anitápolis	Open-pit	364	Catarinense Ltda. (an indirect wholly-owned subsidiary of Vale)	Concession/mining rights: (a) scope: Mining Concessions 808.936/1969 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Salitre, Minas Gerais				(a) scope: 804.380/1969
Salitre I	Open-pit	2,525	Vale and Vale Fertilizantes	Concession/mining rights: (a) scope: Mining Concessions 804.380/1969 (Vale), 807.503/1969 (Vale Fertilizantes S.A.) and 807.805/1974 (Vale) <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>

Mining complex/Mine	Type of mine	Approximate area (hectares)	Holder of mining, land use and other related rights	Description of mining, land use and other related rights (Concession reference numbers appear in parentheses)
Iperó, São Paulo				
Fazendas Ipanema and Boa Vista	Open-pit	6,692	Vale Fosfatados S.A.	Concession/mining rights: (a) scope: Mining Concessions 816.160/1968, 804.995/1973, 820.529/1981, 820.530/1981 and 820.531/1981 <sup>(1)</sup> (b) term: indefinite <sup>(2)</sup>
				Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code <sup>(3)</sup> (b) term: indefinite <sup>(5)</sup>
Coal				
Mozambique				
Moatize	Open-pit	23,780	Vale	Concession/mining rights: (a) scope: mining concession 867C specifies rights to use and occupy the land and, on an exclusive basis, to exploit the mineral resources identified in the research phase and undertake the necessary works; to sell or otherwise dispose of the mineral products resulting from mining operations. The holder of the mining concession shall also be entitled to request and be granted the title of usage and benefit of the land in accordance with applicable land law legislation. (b) term: to 1 March 2032
				Land use right: (a) scope: provisional right to use and development of land on portion of land located in Moatize (Moatize Administrative Post, District of Moatize) granted through Resolution 66/2008, passed by the Council of Ministers (the Cabinet) of Mozambique. (b) term: indefinite upon confirmation

#### Notes:

- (1) The named holder in each of these Brazilian concessions is permitted to exploit the commodity to the geographical extent and for the term specified in such concession, subject to:
  - (i) the obligation to pay royalties to the Brazilian Government; and
  - (ii) various Brazilian regulatory obligations and restrictions relating to, among others:
    - (I) the manner in which the deposits of the commodity are exploited;
    - (II) the health and safety of mining workers; and
    - (III) the prevention of pollution and protection of the environment, including certain obligations relating to mine closure and the reclamation of the land.
- (2) The named holder in each of these Brazilian concessions is permitted to exploit the commodity specified in such concession for an indeterminate period of time lasting until the exhaustion of the deposit of the commodity.
- (3) The land with respect to which the concession (or each of the concessions, as the case may be) has been granted and the bordering properties are either owned by the holder of the concession or occupied under easements (servidao) obtained

pursuant to the Brazilian Mining Code or are partly owned and partly occupied under easements. The easements so granted are subject to:

- (i) the obligation to pay royalties to the landowner(s) if they own the land where the ore body is located; and
- (ii) the obligation to compensate such landowner(s) for damage and loss of income caused by use and occupation of the land where the mines are located.
- (4) The land with respect to which the concession (or each of the concessions, as the case may be) has been granted and leased to us is either owned by the lessor or occupied under easements (servidao) which are either held by the lessor or which we, as the lessee, have the right under the relevant lease agreement to require the lessor to obtain on our behalf pursuant to the Brazilian Mining Code. The easements so granted are subject to:
  - (i) the obligation to pay royalties to the landowner(s), if they own the land where the ore body is located; and
  - (ii) the obligation to compensate such landowner(s) for damage and loss of income caused by use and occupation of the land where the mines are located.
- (5) Easements obtained pursuant to the Brazilian Mining Code last for the duration for which the mining concession has been granted.
- (6) In Canada, 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 owned or leased. Mining and surface rights that are owned remain in effect for so long as we own the land to which the rights apply. Vale Canada's mines in Sudbury, Ontario are largely on mining and surface rights owned by Vale Canada. Mining rights and surface rights that are leased remain in effect for the term of the lease provided that the rent is paid and the terms of the lease are complied with. Vale Canada's mines in Thompson, Manitoba and Voisey's Bay, Newfoundland and Labrador are on lands leased from the provincial governments. The provincial and mineral tax or royalty regimes generally levy tax based on the sale price less certain costs. In Canada, legislation varies from province to province. However in all provinces, mining companies are subject to legislative requirements relating to mine closure and rehabilitation, environmental protection and worker health and safety.
- (7) In Ontario, Canada, holders of unpatented mining claims must perform annual assessment work in order to renew them but there is no limit on the amount of time the holder can renew. Mining leases are renewable for a further term of 21 years as long as:
  - (i) the production of minerals has occurred continuously for more than one year since the last renewal of the lease; or
  - (ii) the lessee has demonstrated a reasonable effort to bring the property into production.
- (8) In Manitoba, Canada, Order-in-Council Leases, provide for an initial 21-year term and two subsequent guaranteed renewals of 21 years each. Subsequent lease renewals beyond the initial guaranteed lease period of 63 years are at the discretion of the Province of Manitoba. Mineral exploration licences have a term of three years with the option to renew only once for an additional three year term.
- (9) In Newfoundland and Labrador, Canada, mining leases can be renewed for further 10-year terms provided there is no subsisting breach of the terms of the lease and renewal is applied for at least three months prior to expiry. Surface leases may also be renewed for 10-year terms. Mapped-staked licences can be renewed every five years for up to twenty years, at which point holders must apply for a mining lease to keep rights to the land.
- (10) PTI's operations in Indonesia are conducted pursuant to a Contract of Work with the Indonesian Government that expires in 2025. The Contract of Work gives PTI 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, PTI pays a royalty based on sales volume. The Contract of Work grants PTI the right to construct facilities and to acquire land titles as it deems necessary to carry out its activities, subject to laws and regulations in effect from time to time. Mining companies in Indonesia are subject to environmental regulations and permits issued by the Indonesian Government. In addition there are restrictions on mining in forestry areas.

Many concessions impose specific obligations on the concessionaire governing such matters as how operations are conducted and what investments are required to be made. For example, under the concession for our Indonesian mining operations (known as the Contract of Work), we are required to construct two production plants, each in a specific region, subject to economic and technical feasibility. Our ability to maintain our mineral rights depends on meeting these requirements, which often involve significant capital expenditures and operating costs.

#### **INFRASTRUCTURE**

## **Logistics services**

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 carry on our logistics businesses through our Company as well as through subsidiaries and joint ventures, as set forth in the following table.

			Or shareh percer	olding	
Company	Business	Location	Voting (%)	Total (%)	<u>Partners</u>
Vale	Railroad (EFVM and EFC), port and maritime terminal operations	Brazil	_	_	_
FCA	Railroad operations	Brazil	99.9	99.9	Former employees of Rede Ferroviária Federal S.A.
FNS	Railroad operations	Brazil	100.0	100.0	<del>_</del>
MRS	Railroad operations	Brazil	37.9	41.5	Companhia Siderúrgica Nacional, Usiminas and Gerdau
CPBS	Port and maritime terminal operations	Brazil	100.0	100.0	_
Log-in	Port and maritime terminal operations and shipping activities	Brazil	31.3	31.3	Mitsui &Co., Ltd., public investors
PTI	Port and maritime terminal operations	Indonesia	59.1	59.1	Sumitomo Metal Mining Co., Ltd., public investors
SPRC	Port and maritime terminal operations	Colombia	100.0	100.0	_
FENOCO	Railroad operations	Colombia	8.4	8.4	Drummond, Glencore and Coalcorp

#### Railroads

Brazil

Vitória a Minas (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-kilometre railroad under a 30-year concession, which expires in 2027, but is renewable for another 30 years at the grantor's discretion. The EFVM railroad consists of two lines of track extending for a distance of 601 kilometres to permit continuous railroad travel in opposite directions, and single-track branches of 304 kilometres. The EFVM railroad runs through areas where industrial manufacturers are located as well as major agricultural regions. The EFVM railroad has a daily capacity of 342,000 metric tons of iron ore. In 2009, the EFVM railroad carried a total of 60.5 billion ntk of iron ore and other cargo, of which 13.5 billion ntk, or 22%, consisted of cargo transported for customers, including iron ore for Brazilian customers. The EFVM railroad also carried 0.9 million passengers in 2009. In 2009, EFVM had a fleet of 331 locomotives and 19,395 wagons.

## Carajás (EFC)

We operate the EFC railroad under a 30-year concession, which expires in 2027, but is renewable for another 30 years at the grantor's discretion. EFC is located in the Northern System, beginning at our Carajás iron ore mines in the Brazilian state of Pará and extending 892 kilometres to our Ponta da Madeira maritime terminal complex facilities located near the Itaqui Port in the Brazilian state of Maranhão. Its main cargo is iron ore, principally carried for us. It has a daily capacity of 301,000 metric tons of iron ore. In 2009, the EFC railroad carried a total of 85.04 billion ntk of iron ore and other cargo, 3.11 billion ntk of which was cargo for customers, including iron ore for Brazilian customers. EFC also carried 342,665 passengers in 2009. EFC supports a large capacity train, which measures 3.4 kilometres, weighs 42,300 gross metric tons when loaded and has 330 cars. In 2009, EFC also had a fleet of 226 locomotives and 12,627 wagons.

## Ferrovia Centro-Atlântica S.A. (FCA)

Our subsidiary FCA operates the central-east regional railway network of the Brazilian national railway system under a 30-year concession, which expires in 2026, but is renewable for another 30 years at the grantor's discretion. The central east network has 8,023 kilometres 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 in Vitória, in the state of Espírito Santo. FCA operates on the same track gauge as our EFVM railroad and provides access to the Santos Port in the state of São Paulo. In 2009, the FCA railroad transported a total of 10.62 billion ntk of cargo for customers. In 2009, FCA had a fleet of 498 locomotives and 13,061 wagons.

## Ferrovia Norte-Sul S.A. (FNS)

In October 2007, we won the auction for the subconcession for commercial operation for 30 years of a 720-kilometre section of the FNS railroad, in Brazil. As of the execution of the subconcession agreement in December 2007, approximately 133.5 kilometres were under construction with federal government resources and 361.5 kilometres were under construction by VALEC- Engenharia, Construções e Ferrovias S.A. A 452-kilometre extension was completed in December 2008. 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. In 2009, the FNS railroad transported a total of 1.16 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 central-northern region of Brazil. In 2009, FNS had a fleet of 6 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 travelled, the type of product transported and the weight of the freight, and are regulated by the Brazilian transportation regulatory agency, Agência Nacional de Transportes Terrestres.

## MRS Logística S.A. (MRS)

Our affiliate MRS operates the Southeastern regional railway network of the Brazilian national railway system under a 30-year renewable concession, which expires in 2026, but is renewable for another 30 years at the grantor's discretion. The MRS railroad is 1,643 kilometres long and links the Brazilian states of Rio de Janeiro, São Paulo and Minas Gerais. In 2009, the MRS railroad carried a total of 56.25 million metric tons of cargo, including 51.1 million metric tons of iron ore and other cargo from Vale.

#### Colombia

Ferrocarriles del Norte de Colombia S.A. (FENOCO)

We own an 8.4% equity stake in FENOCO, a company that owns a concession to restore and operate the Chiriguana — Santa Marta section (220 kilometres) of the Atlantic Railroad, which connects the Cesar coal-producing region with various ports in the Atlantic Ocean.

## Ports and maritime terminals

#### Brazil

Our Company operates 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. We also use our port and terminals to handle customers' cargo. In 2009, 10% of the cargo handled by our port and terminals represented cargo handled for customers. The construction, development and operation of private use maritime terminals in Brazil must be authorised under Brazilian law by ANTAQ by means of a concession, whereas public maritime terminals are usually leased under lease agreements.

## Tubarão Port

The Tubarão Port, which covers an area of 18 square kilometres, is located near the Vitória Port in the Brazilian state of Espírito Santo, and comprises four maritime terminals operated by us: (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 metres 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 2009, 77.42 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.
- Praia Mole terminal is principally a coal terminal and handled 8.9 million metric tons in 2009. For details of certain litigation in respect of this terminal, please see the section in this Listing Document headed "Business — Legal proceedings".
- Terminal de Produtos Diversos handled 5.9 million metric tons of grains and fertilizers in 2009.
- Terminal de Granéis Líquidos handled 1 million metric tons of bulk liquid in 2009.

Our operation of each of these terminals subsists pursuant to a concession agreement, granted by ANTAQ. The concession comprises the stocking and shipping of goods destined to or proceeding from maritime transport.

According to the concession and applicable laws, ANTAQ may only terminate the concession in the following cases: (i) occurrence of unequivocal environmental damage; (ii) discontinuance of the terminal's operation; (iii) bankruptcy or winding-up of our Company; and (iv) forfeiture, in the event of: (a) failure by our Company to comply with any penalties imposed by ANTAQ; (b) failure by our Company to comply with any formal notices in respect of operation of the terminal; (c) hindering or prevention by our Company of the right to supervision by ANTAQ; (d) failure by our Company to provide reports on cargo handling or any additional information requested by ANTAQ; (e) unauthorised suspension of the terminal's operation longer than 180 days; (f) failure by our Company to comply with the rules established by ANTAQ, and; (g) failure by our Company to maintain the conditions required for the concession.

## 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 four 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 2009, 87.3 million metric tons were handled through the terminal for us and 4.5 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 public port of Sepetiba, in the Brazilian state of Rio de Janeiro. Itaguaí's maritime terminal has a pier that allows the loading of ships up to 18 metres of draft and up to 230,000 DWT. In 2009, the terminal uploaded 19.6 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 — Minerações Brasileiras Reunidas S.A.

Through Minerações Brasileiras Reunidas S.A., we operate a private maritime terminal on Guaíba Island in the Sepetiba Bay, in the Brazilian state of Rio de Janeiro pursuant to a concession agreement. The term of the concession is 25 years from 25 November 1993. The concession is subject to termination in the event of: (i) rescission; (ii) discontinuance of the terminal's operation; (iii) bankruptcy or winding-up of Minerações Brasileiras Reunidas S.A.; and (iv) forfeiture. The iron ore terminal has a pier that allows the loading of ships of up to 300,000 DWT. In 2009, the terminal uploaded 36.8 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. We entered into an agreement with Petrobras in December 2002, which allows us to operate this terminal for a period of 10 years. In 2009, 0.9 million metric tons of fuel and agricultural and steel products were shipped through TMIB.

#### Colombia

#### Sociedad Portuaria Rio Cordoba (SPRC)

SPRC is a seaport facility wholly-owned by us and used to export coal from the El Hatillo operation, as well as other nearby mines. The port is located in Cienaga, on the Caribbean coast of

Colombia, in the Magdalena Department, about 67 kilometres from Barranquilla and 31 kilometres from Santa Marta.

#### Indonesia

PTI 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.

## 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 31 December		cember
	2007	2008	2009
	(thous	sand metric	tons)
Iron ore:			
Vale	1,324	1,884	2,739
Customers	_		
Coal			_
Other			
Total	<u>1,471</u>	1,884	2,739

We are developing a low-cost freight portfolio. Since 2007, we have operated three capesize vessels, which have been fully dedicated to performing shuttle services from Brazil to Asia. In 2009, we bought 17 used capesize vessels, seven of which begin operation this year. We have also entered into long-term freight contracts and have placed orders with shipyards for the construction of 16 large ore carriers, each with a capacity of 400,000 DWT, and four additional capesize vessels, each with a capacity of 180,000 DWT. We expect this service to enhance our ability to offer our products in the Asian market at competitive prices and to increase our market share in China and the global seaborne market.

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

We own 31.3% of Log-In, which conducts intermodal shipping business. Log-In offers port handling and container transportation services, by sea or rail, as well as container storage. It operates owned and chartered ships for coastal shipping, a container terminal (*Terminal Vila Velha*, or **TVV**) and two multimodal terminals. In 2009, Log-In's coastal shipping service transported 110,547 twenty-foot equivalent units (teus), TVV handled 211,387 teus and its express train service moved 41,475 teus.

We also operate a fleet of 25 tug boats (14 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).

## **Energy**

## Electric power

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 minimising the risk of energy shortages.

#### Brazil

Energy management and efficient supply in Brazil are priorities for us, given the uncertainties associated with changes in the regulatory environment, and the risk of rising electricity prices and electric energy shortages (as experienced in Brazil in the second half of 2001). We currently have several hydroelectric power plants in operation. In 2009, our total energy capacity in Brazil was 12,509 GWh. We use the electricity produced by these plants for our internal consumption 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.

In Brazil, we and our subsidiaries operate, jointly with other companies by means of consortia, the following energy concessions:

Hydroelectric power plant	Our participation	Installed capacity	<u>Term</u>
Igarapava	38%	210 MW	30 years from 30/12/1998
Porto Estrela	33%	112 MW	35 years from 10/07/1997
Capim Branco I and			
Capim Branco II	48%	240 MW (Capim Branco I)	35 years from 29/08/2001
		and 210 MW (Capim	
		Branco II)	
Funil	51%	180 MW	35 years from 20/12/2000
Aimorés	51%	330 MW	35 years from 20/12/2000
Candonga	50%	95 MW	35 years from 25/05/2000

In the above-mentioned concessions, we assume, in consortia, positions as independent electricity producer or self-producer.

#### Canada

In 2009, our wholly-owned and operated hydroelectric power plants in Sudbury generated 31% of the electricity requirements of our Sudbury operations. The power plants consist of five separate generation stations with an installed generator nameplate capacity of 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. During 2009, the power system operator distributed electrical energy at the rate of 80.0 MW to all surface plants and mines in the Sudbury area.

In 2009, diesel generation provided 100% of the electric requirements of our Voisey's Bay operations. We have six diesel generators on-site, of which normally only four are in operation, producing 12 MW.

#### Indonesia

Energy costs are a significant component of our nickel production costs for the processing of lateritic ores at PTI's operations in Indonesia. A major portion of PTI'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 180 MW, and (ii) the Balambano plant, which generates an average of 110 MW. PTI has thermal generating facilities which include 24 Caterpillar

diesel generators, with capacity of 1 MW each, five Mirrlees Blackstone diesel generators, and one oil burning steam turbine generator. These generators have the capacity to provide 80 MW of power.

## Oil and natural gas

The use of natural gas in our energy matrix in Brazil is expected to increase from 1.3 million cubic metres per day in 2009 to 12.8 cubic metres per day in 2020. In order to mitigate supply and price risks we started investing in natural gas exploration. Since 2007, we have developed a 29-block portfolio in Brazilian onshore and offshore basins.

During 2009, the operators of the consortia in which we participate drilled six offshore wells in the Santos and Espírito Santo basins. These wells delivered two oil and gas discoveries that are going to be delimited and tested this year. Both of them are located in the Santos basin, on the BM-S-48 concession area. Oil or gas existence has been detected at three other wells but common technical or commercial issues prevented their development.

## Other investments

#### Bauxite

We conduct our operations through our joint venture, Mineração Rio do Norte S.A. (MRN).

	0	ur participati	on
<u>Firm</u>	Location	Voting	Total
		(%	<b>6)</b>
MRN	Brazil	40.00%	40.00%

MRN, is located in the northern region of the Brazilian state of Pará and operates four open-pit bauxite mines that produce high-quality bauxite. In addition, MRN controls substantial additional high-quality bauxite reserves.

MRN also operates ore beneficiation facilities at its mines, which are connected by rail to a loading terminal and port facilities as the Trombetas River, a tributary of the Amazon River, that can handle vessels of up to 60,000 DWT. MRN owns and operates the rail and port facilities serving its mines. The MRN mines are accessible by road from the port area and obtain electricity from their thermal power plant.

## Steel

We conduct our operations through affiliates California Steel Industries, Inc. (CSI) and ThyssenKrupp CSA Siderúrgica do Atlântico Ltda (TKCSA).

	Our participation		
<u>Firm</u>	Location	Voting	Total
CSI	<b>United States</b>	50.00%	50.00%
TKCSA	Brazil	26.87%	26.87%

We own a 50% stake in CSI, a producer of flat-rolled steel and pipes, located in the United States. The other 50% belongs to JFE Steel. CSI produces approximately 1.8 million metric tons of flat rolled steel products per year. CSI is adding a second reheating furnace with cutting-edge environmental technology which will increase its capacity by about 50%. The total estimated project cost is US\$71.0 million.

We hold a 26.87% stake in TKCSA, an integrated producer of steel plates in the state Rio de Janeiro, Brazil. TKCSA started producing slabs this year.

## RECENT DEVELOPMENTS AND FUTURE PROJECTS

For 2010, we budgeted US\$12,894 million for capital expenditures. This amount includes expenditures on project development as well as maintenance of existing operations, and research and development, which are headed as current expenses for accounting purposes. Our actual capital expenditures may differ from the budgeted amount for a variety of reasons, including changes in exchange rates. In the first half of 2010, we spent US\$4,533 million on capital expenditures, excluding acquisitions.

The allocation of total expenditures in 2009 and in the six months ended 30 June 2010 is set forth in the following table.

	2009 expenditures	Six months June	
	(US\$ million)	(US\$ million)	(% of total)
Organic growth	6,855	3,693	81.5
Project execution	5,845	3,234	71.4
Research and development	1,010	458	10.1
Investments to support existing operations	<u>2,158</u>	840	18.5
Total	<u>9,013</u>	<u>4,533</u>	100.0

The following table summarises by major business area the breakdown of our capital expenditures in 2007, 2008 and 2009, and for the six months ended 30 June 2010.

	20	07	20	08	20	09	Six months en	
	(US\$ million)	(% of total)						
Ferrous minerals Non-ferrous	1,748	15.9	2,171	21.3	2,124	23.6	1,193	26.3
minerals	3,988	36.2	4,614	45.3	3,144	34.9	1,453	32.1
Logistics services	977	8.9	1,952	19.2	1,985	22.0	893	19.7
Coal	169	1.5	392	3.8	564	6.3	384	8.5
Power generation	165	1.5	406	4.0	688	7.6	295	6.5
Steel	279	2.5	146	1.4	184	2.0	71	1.6
Other	298	2.7	510	5.0	324	3.6	244	5.4
Acquisitions	3,379	30.7						
Total	11,004	100%	10,191	100.0	9,013	100.0	4,533	100.0

The following table sets forth total expenditures in 2009 for our main investment projects and expenditures budgeted for those projects in 2010, together with estimated total expenditures for each project.

		Actual <sup>(1)</sup>	Bud	geted
Business area	Project	2009	2010	Total <sup>(2)</sup>
		(US	\$ millio	n)
Ferrous minerals and Logistics	Carajás — additional 20 Mtpy iron ore mine	45	90	575
	Carajás — additional 30 Mtpy iron ore mine	384	480	2,478
	Carajás Serra Sul (mine S11D) iron ore mine	213	1,126	11,297
	Apolo iron ore mine	9	38	2,509
	Vargem Grande Itabiritos iron ore mine	_	78	975
	Conceição Itabiritos iron ore mine	7	184	1,174
	Tubarão VIII pellet plant	208	122	636
	Oman pellet plant and iron ore distribution centre	344	484	1,356
	Teluk Rubiah maritime terminal and distribution centre	4	98	900
Non-ferrous minerals	Onça Puma nickel mine	486	510	2,646
	Totten nickel mine	56	146	362
	Long-Harbour nickel processing facility	101	441	2,821
	Tres Valles copper mine	52	27	109
	Salobo copper mine	436	600	1,808
	Salobo copper mine expansion	2	66	1,025
	Konkola North copper mine	_	50	145
	Bayóvar phosphate mine	296	219	566
	Rio Colorado potash mine	_	304	4,118
Coal	Moatize coal mine	302	595	1,322
Energy	Estreito hydroelectric power plant	284	186	703
	Karebbe hydroelectric power plant	53	126	410
	Biofuels	46	55	407
Total		3,328	6,025	38,342

<sup>(1)</sup> All figures presented on a cash basis.

#### **Bulk materials**

## **Ferrous minerals**

## Iron ore

Recent developments

Acquisition of Simandou iron ore assets

On 30 April 2010, we announced the acquisition from BSG Resources Ltd. (**BSGR**) of a 51% interest in BSG Resources (Guinea) Ltd., which indirectly holds iron ore concession rights in Guinea, in Simandou South (Zogota), and iron ore exploration permits in Simandou North and Blocks 1 and 2, for a cash consideration of US\$2,500 million, of which US\$500 million was payable immediately and the remaining US\$2,000 million on a phased basis subject to the achievement of specific milestones by the end of 2011.

We believe Simandou Blocks 1 and 2 and Zogota are one of the world's best undeveloped sources of high-grade iron ore with potential to support the development of a large-scale long-lived project, with low capital expenditure and operating costs.

The joint venture established between the Group and BSGR will implement the Zogota project and conduct a feasibility study for Blocks 1 and 2 with the creation of a logistics corridor for shipment through Liberia. In order to be granted the right to ship through Liberia, the joint venture is committed to renovate 660 kilometres of the Trans-Guinea railway for passenger transportation and light commercial use. We will be responsible for the management control and marketing of the

<sup>(2)</sup> Estimated total capital expenditure cost for each project.

joint venture and will have exclusivity for the off-take of all iron ore produced. The start-up of Phase I (Zogota) is expected for the second half of 2012. Conclusion is scheduled for 2014.

Carajás — additional 20 Mtpy

This brownfield project, located in the Northern System, will add 20 million metric tons per year to our capacity with the investment applied in part to overhauling a dry plant and the acquisition of a new plant.

Future projects

Carajás — additional 30 Mtpy

This brownfield project, located in the Northern System, will add 30 million metric tons per year to our capacity with investments in the installation of a new plant, composed of primary crushing, processing and classification units and significant investment in logistics. The required environmental licences have been obtained, and start-up is planned for 2012.

Vargem Grande — Itabiritos

This project in the Southern System will add 10 million metric tons per year of iron ore to current capacity. It involves investment in a new iron ore treatment plant, which will receive low-grade iron ore from the Abóboras, Tamanduá and Capitão do Mato mines. The total budget includes the capital expenditures for increasing capacity at the Andaime railroad terminal. Start-up is expected in the second half of 2013.

Conceição Itabiritos

This is a brownfield project aimed at increasing pellet feed capacity through the processing of low-grade itabirites. The project involves the construction of a concentration plant to add 12 million metric tons per year to the current nominal capacity of pellet feed, using as feed run-of-mine from the Conceição mine, in the Itabira complex in the Southeastern System. Start-up is targeted for the second half of 2013.

Carajás Serra Sul (mine S11D)

This project, located on the Southern range of Carajás, in the Brazilian state of Pará 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 a production capacity of 90 million metric tons of iron ore per year. Completion is currently scheduled for the second half of 2014, subject to obtaining the required environmental licences.

Apolo

We expect this greenfield project, located in the Southeastern System, to have production capacity of 24 million metric tons per year of iron ore. Start-up is expected in the first half of 2014.

Teluk Rubiah

We have started construction of distribution facilities in Teluk Rubiah, Malaysia. The project comprises a maritime terminal with enough depth to receive 400,000 DWT ore carriers and a stockyard capable of handling up to 30 million metric tons per year in an initial phase. There is potential to expand it in future to up to 90 million metric tons per year. Start-up is targeted for the second half of 2013.

## Iron ore pellets

Future projects

Oman

We are building a pelletising plant in the Sohar industrial district, Oman, in the Middle East, with capacity for the production of 9 million metric tons per year of direct reduction pellets and a distribution centre with capacity to handle 40 million metric tons per year.

Tubarão VIII

We are building a new pellet plant at our existing seven-plant complex at the Tubarão Port. We expect the plant to have production capacity of 7.5 million metric tons per year. Start-up is scheduled for the second half of 2012.

#### Coal

Future projects

Moatize

On 27 March 2009, we announced the construction of the Moatize Project, in the province of Tete, Mozambique, was in progress.

Moatize, our first greenfield project in Africa, has proven and probable coal reserves of 838 million metric tons. We believe it is one of the world's largest unexploited coal reserves. It has high-quality metallurgical coal, hard coking coal, which is traded at a premium over prices of other types of coal.

The project involves an investment of US\$1.3 billion and it will have a nominal capacity to produce 11 million metric tons of coal per year, which is expected to comprise 8.5 million metric tons of metallurgical coal and 2.5 million metric tons of thermal coal. Start-up is expected in the first half of 2011.

We are building in Moatize what we believe to be one of the world's largest coal handling preparation plants in an operational site, with capacity to process 26 million metric tons of coal per year.

Coal production from the Moatize mine will be transported by a railroad approximately 600 kilometres in length to a new maritime terminal in the port of Beria, province of Sofala, Mozambique. The coal terminal will be built by a concessionary owned by the Mozambican Government.

Our project in Moatize also involves initiatives dedicated to investment in human capital (health, education and professional trading), the creation of infrastructure and the development of sustainable economic activity (a model farm for cattle raising and agriculture) to create jobs and generate income for the local population.

Moatize II

The project comprises investments in a new pit, duplication of the Moatize CHPP, increasing production to 22 Mtpy. Start-up is scheduled for the second half of 2013.

#### **Base metals**

## Nickel

Recent developments

Vale New Caledonia, New Caledonia

We are in the initial stage of ramping up our Vale New Caledonia (formerly Goro) nickel project in New Caledonia.

We announced the project had successfully produced its first nickel metal product on 9 August 2010. We expect to ramp-up Vale New Caledonia over a three-year period to reach nominal production capacity of 60,000 metric tons per year of nickel and 4,600 metric tons per year of cobalt.

## Onça Puma

On 21 September 2010 we announced that the commissioning phase for Onça Puma would be completed by the end of September 2010 and the ramp-up period began in October 2010. Commercial production is expected to commence in January 2011. Onça Puma is a nickel operation (comprising both mine and plant) built on deposits of nickel laterite saprolite in the Brazilian state of Pará. We expect it to reach nominal production capacity of 58,000 metric tons per year in nickel contained in ferro-nickel, its final product in 2013.

## Future projects

**Totten** 

We are working on the re-opening of the Totten nickel mine in Sudbury, Ontario, Canada which was closed in 1972. We are aiming for it to have annual production capacity of 8,200 metric tons of nickel, with copper and precious metals (platinum, gold and silver) as by-products. Completion is scheduled for the first half of 2011.

## Long-Harbour

We are building a nickel processing facility pursuant to a commitment with the government of the Province of Newfoundland and Labrador, Canada. The facility will have nominal production capacity of 50,000 metric tons per year of finished nickel, together with up to 5,000 metric tons of copper and 2,500 metric tons of cobalt, utilising feed from the Ovoid mine at Voisey's Bay. Start-up is scheduled for the first half of 2013.

## Copper

Future projects

Tres Valles

We are building 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.

## Salobo

The first phase of development of the Salobo copper deposit in Carajás, will have an annual nominal production capacity of 100,000 metric tons of copper in concentrates. Project implementation is under way and civil engineering work has started. Salobo is scheduled to begin operation in the second half of 2011.

## Salobo expansion

This project will expand the Salobo mine's production capacity from 100,000 to 200,000 metric tons per year 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. This project is estimated to be completed in the second half of 2013.

#### Konkola North

Located in the Zambian copper belt, this is an underground mine and will have an estimated nominal production capacity of 45,000 metric tons per year of copper in concentrate, which will be toll smelted in Zambia. This project is part of our 50/50 joint venture with African Rainbow Minerals Limited in Africa. The project is expected to start production in 2013 and to reach full capacity in 2015. The expected mine life is 28 years.

#### Cristalino

This project is located in the Carajás region, with nominal capacity of 95,000 tons per year of copper in concentrates. Start-up is scheduled for the second half of 2014.

## Fertilizer nutrients

## Recent developments

Acquisition of fertilizer nutrient assets in Brazil

In January and February 2010, we announced that we had, through our subsidiary Mineração Naque S.A., entered into various agreements and option contracts to acquire (a) 100% of the outstanding shares of Bunge Participações e Investimentos S.A. (now known as Vale Fosfatados S.A.), a company with assets and investments in the fertilizer business in Brazil; and (b) the controlling interest in Fertilizantes Fosfatados S.A. — Fosfertil (now known as Vale Fertilizantes), a company listed on BM&FBOVESPA. Vale Fosfatados S.A. owns a portfolio of Brazilian fertilizer assets composed of two phosphate rock mines in the states of Minas Gerais and São Paulo and phosphate assets as well as direct and indirect interests in the equity capital of Vale Fertilizantes. Vale Fertilizantes operates three phosphate rock mines in the states of Goiás and Minas Gerais. The acquisitions of the Brazilian fertilizer assets of Vale Fosfatados S.A. and the controlling interest in Vale Fertilizantes were completed in May and September 2010, respectively. We currently hold 78.90% of the total equity capital of Vale Fertilizantes, of which we hold 99.81% of its ordinary shares and 68.24% of its preferred shares. The Company is also implementing a mandatory tender offer to acquire the remaining 0.19% of the common shares of Vale Fertilizantes.

#### Bayóvar

In July 2010, we announced the commencement of production at our Bayóvar open-pit mine in Peru which has a nominal capacity of 3.9 million metric tons per year of phosphate rock. In addition to the mine, the operation includes a phosphate concentration plant, a conveyor belt system and a maritime terminal.

## Future projects

#### Rio Colorado

This project includes the development of a mine with an initial nominal production capacity of 2.4 million metric tons per year of potash, with potential for a future expansion to 4.3 million metric tons per year, construction of a railway spur of 350 kilometres, port facilities and a power plant. Start-up is expected to take place in the second half of 2013.

Bayóvar II

This is the brownfield expansion of the Bayóvar project, targeting an additional 1.9 Mt of phosphate rock production. Start-up is scheduled for the second half of 2012.

Salitre

This project, located in Minas Gerais, Brazil, involves the development of a new phosphate mine with a production capacity of 2.2 Mtpy of phosphate concentrates and establishment of a fertilizer production plant with capacity of 560,000 tons per year of P205, linked by an 18km pipeline. Start-up is scheduled for 2014.

## Logistics

Future projects

CLN 150 Mtpy

This project includes investments in railway capacity and in the Ponta da Madeira terminal in Maranhao, Brazil, including construction of a fourth pier. It will increase the railway and port capacity to 150 Mtpy. Start-up is scheduled for the second half of 2012.

Serra Leste

This project includes investments in mining equipment, new processing plant and logistics to meet additional iron ore production of 10 Mtpy in 2013. The iron ore flow will be transported by the EFC railroad. Start-up is scheduled for the first half of 2012.

CLN S11D

This project will expand the railway and the Ponta da Madeira terminal in the Northern System to increase capacity in line with the expansion in Carajás, as well as the construction of a rail branch connecting the EFC railroad to the Serra Sul S11D mine. Start-up is planned for the second half of 2014.

Nacala Corridor

This project is to develop the Nacala corridor, involving construction of a 200 km railway connecting the Moatize mine to Malawi, a new coal maritime terminal in Nacala, Mozambique and a 21 km rail branch that will connect the existing railway to the new coal maritime terminal, and the recovery of existing railways in Malawi and Mozambique. Start-up is scheduled for 2014.

## Other future projects

We are engaged in several significant energy projects, including the construction of the Estreito hydroelectric power plant in Brazil which is expected to be fully operational with all its generation units in September 2012 and the Karebbe hydroelectric power plant in Sulawesi, Indonesia. We have also entered into a consortium with Biopalma to invest in biodiesel to supply our mining and logistics operations in the Northern region of Brazil.

## **CUSTOMERS**

For the three financial years ended 31 December 2009, our five largest customers combined accounted for less than 30% of our total operating revenues for each such period. For the financial year ended 31 December 2009, all our five largest customers were customers of iron ore and iron ore pellets.

#### **SUPPLIERS**

Our suppliers include suppliers for ancillary materials. Fuel and gases are the largest components of our supplies of ancillary materials. For the three financial years ended 31 December 2009, our five largest suppliers combined accounted for less than 30% of our purchases for each such period.

## **OPERATIONAL RISK**

Operational risk management is the structured approach we take to manage uncertainty related to inadequate or failed internal processes, people and systems and to external events.

We mitigate operational risk with new controls and improvement of existing ones, with transfer of risk through insurance and establishment of financial provisions. As a result, our Company seeks to have a clear view of its major risks, the best cost-benefit mitigation plans it must invest in, and the controls in place to monitor the impact of operational risk closely and to allocate capital efficiently to reduce such risk.

During the Track Record Period and up to the Latest Practicable Date, our Company was not subject to any material adverse effect to its operations as a result of the occurrence of:

- (a) any major incidents of electricity shortages;
- (b) any failure in obtaining mining concessions, authorisations, licences and permits; or
- (c) any failure to comply with environmental, health and safety rules and regulations in any material respect.

Save as otherwise disclosed in this Listing Document, there were no findings notified to our Company by any regulating authority in the jurisdictions in which the Group operates of any material non-compliance with any rule, regulation or law to which its business was subject, or any failure to obtain any material permits and licences required for our Company's business operations during the Track Record Period and up to the Latest Practicable Date.

#### RESEARCH AND DEVELOPMENT

Our research and development expenditure was US\$361 million in the period of six months ended 30 June 2010, US\$981 million in the financial year ended 31 December 2009, US\$1,085 million in the financial year ended 31 December 2008 and US\$733 million in the financial year ended 31 December 2007.

## CORPORATE SOCIAL RESPONSIBILITY

We have implemented a number of policies in relation to the impact of our business activities on the environment, health and safety at work and community relations.

## **Environmental policy**

We have adopted an Environmental Management System which sets out standards and procedures for monitoring and managing conservation, environmental protection and rehabilitation issues in our operations and helps us to ensure the protection and recovery of ecosystems where we conduct our mining operations. Our system is based on ISO 14001 guidelines, to which we have added additional features to make up our standard of environmental quality. We also carry out internal and external environmental audits from time to time.

Listed below are our business units that were compliant with ISO 14001 environmental standards as at the Latest Practicable Date:

- (a) sixteen of our iron ore mines (constituting 47% of the mines for which Competent Persons' reports were prepared for the purposes of this Listing Document) and the Tubarão and Fábrica pelletising plants;
- (b) our manganese and ferroalloy operations at Azul, Morro da Mina and Vale Manganèse France:
- (c) our nickel operations in Europe and at the Taiwan Nickel Refining Corporation; and
- (d) the port of Tubarão.

In many cases, we operate to higher environmental standards than is legally required. We spent US\$1,700 million in connection with the operation of our Environmental Management System in the last three years, of which US\$1,079 million was spent in Brazil. The financial resources were allocated to three areas:

- (a) the acquisition and implementation of environmental control equipment, to improve compliance with environmental standards in existing operations;
- (b) environmental geotechnical maintenance of our dams and tailings piles; and
- (c) reforestation and reclamation of degraded areas, as part of the Vale Florestar programme and agreements with particular Brazilian states.

Our guidelines for decommissioning mines include practical and technical procedures to be followed during the closure of our mines, including the procedures for monitoring and recovery of degraded areas and the main steps to be observed during closure. Our guidelines also provide standardised basic criteria, based on the guidelines of the CVM and the SEC, for cost evaluation, budgeting, future decommissioning and restoration.

## Health and safety policy

Health and safety at work is a priority for our Company. We have a clearly defined strategy, based on a proactive and preventive approach, to continuously improve health and safety for our employees.

We act together with education and governmental institutions in the mining sector to develop practices designed to strengthen our value of "Prioritising Life and Safety". We participate in ICMM (International Council on Mining and Metals) activities, seeking to enhance mining sector health and safety standards in all the countries where we operate.

In 2009, we made investments of over US\$110 million in capital projects to achieve improvements in health and safety. In 2009 we surpassed our goal of having 70% of our critical activities requirements (RACs) implemented in our Brazilian operations, achieving 72.4%. The RACs are internally generated requirements for accident reduction. Those requirements include the adoption of standards, training events and investment in infrastructure, aiming at safe execution of the ten operational activities that, historically, account for 91.7% of fatalities. We have revised all of our requirements in order to improve and adapt them for our operations outside Brazil. Our objective is to implement the RACs in all our international units in 2010.

## Community relations

## Code of Ethical Conduct

We have adopted a code of ethical conduct that applies to all Directors, Executive Officers and employees, including the Chief Executive Officer, the Chief Financial Officer and members of our accounting committee. The code of ethical conduct stipulates desirable behaviour with respect to

fellow employees, administrators, Shareholders and investors, such as impartiality, honesty and transparency; and intolerable behaviour, such as illegitimate personal benefit, discrimination and harassment. We have not granted any implicit or explicit waivers from any provision of our code of ethical conduct since its adoption.

## **Human Rights Policy**

In 2009, we approved our Human Rights Policy. This policy sets out guidelines and principles relating to actions of our Company with regard to human rights issues that may arise in connection with our projects and operations. The policy reinforces the ethical ideas and principles that are established by our Code of Ethical Conduct.

## Sustainable Development Policy

We have also adopted a Sustainable Development Policy. The search for building a positive social, economic and environmental legacy in the areas where we operate is one of the principles that uphold our Sustainable Development Policy. Our activities, especially mining, are limited to the life of the deposit being mined; therefore, our presence in a specific area is generally finite. Our challenge, during the mineral development cycle, is to perform actions that will foster regional economic strengths which will then contribute to improving social welfare for the local communities.

To meet this challenge, we undertake activities to increase the positive effects of our presence, reduce the social risks of operations, and, simultaneously, contribute to strengthening the basis for local development in the long run. We invest in integration with public and social agents to encourage:

- local hiring of employees and suppliers;
- education for human development, work and income generation;
- planning for the use of taxes generated by our operations;
- diversification of the local economy;
- strengthening of institutions; and
- environmental and cultural conservation.

#### **EMPLOYEES AND LABOUR RELATIONS**

The following table sets forth the number of our employees by category as of the dates indicated.

	A1	At 31 December		
	2007	2008	2009	2010
Ferrous minerals	21,700	23,859	24,176	26,870
Logistics services	11,679	13,049	13,455	13,430
Non-ferrous minerals	20,955	22,902	19,728	25,138
Administrative	2,709	2,680	2,677	2,749
Total	57,043	62,490	60,036	68,187

We negotiate wages and benefits with approximately 50 trade unions in Brazil and 15 trade unions worldwide that represent our overseas employees. We have collective agreements with unionised employees at our Australian, Brazilian, Canadian, Indonesian, New Caledonian and U.K. operations.

Some of our Canadian nickel operations have been affected by strikes since mid-2009. Unionised employees at our operations in Sudbury and Port Colborne, in the province of Ontario were on strike in the period from July 2009 to July 2010. Striking employees at our Sudbury and Port Colborne

operations returned to work in the last week of July and the first week of August 2010. Unionised employees working in mining and mill operations at Voisey's Bay, in the province of Newfoundland and Labrador, went on strike in August 2009 and continue to be on strike. For details of the operational and financial impact on the Company, see the sections in this Listing Document headed "Financial information — Results of operations — Six Months ended 30 June 2010 Compared with Six Months ended 30 June 2009 — Revenues — Nickel and other products" and "Financial information — Results of operations — Financial Year ended 31 December 2009 Compared with Financial Year ended 31 December 2008 — Revenues — Nickel and other products." Unsuccessful collective bargaining negotiations with that union have been ongoing for more than 20 months. In January 2010, we announced our intention to resume production at Voisey's Bay utilising management, unionised employees who were not on strike and non-unionised staff. Voisey's Bay has been in full production since June 2010.

On 31 March 2009, members of USW Local 2020-005, which represents office, technical and professional employees in Canada, ratified a new three-year collective agreement with us (not as a consequence of the strikes described above). This agreement included increases to salaries in each of the three years, a defined contribution pension plan for new employees and the introduction of an annual incentive plan that supports the achievement of strategic objectives and rewards performance and various other improvements to collective agreement language.

On 8 July 2010, we announced that new five-year collective bargaining agreements were ratified with United Steelworkers (USW) Locals 6500 and 6200 representing production and maintenance employees in Sudbury and Port Colborne representing full settlement of the strikes concerning those unions.

## INTELLECTUAL PROPERTY RIGHTS

In respect of our intellectual property rights, please see the section headed "Material intellectual properties of our Group" in Appendix VIII to this Listing Document.

# **PROPERTIES**

We have applied for, and the Stock Exchange has granted, a waiver from the requirement under Rule 5.01 of the Listing Rules that valuations of and information on all our interests in land or buildings are required to be included in this Listing Document. For more details, see the section in this Listing Document headed "Waivers". As at 30 September 2010, the aggregate net book value of the land and buildings owned by the Group amounted to approximately 3.9% of the Group's total assets.

The Company and its Major Subsidiaries engaged in mining activities in relation to the Material Reserves have interests in land and buildings located in Brazil, Canada, Indonesia, Mozambique and New Caledonia. As at 31 October 2010, the Group had:

(a) interests in a total of 8,717 real properties in Brazil, the significant majority of which located in the Brazilian states of Minas Gerais, Pará and Espírito Santo. Please see below a breakdown by state and function:

<u>State</u>	Total
Bahia	
Operational buildings	
Administrative buildings	2
Total Bahia	7
Espírito Santo	
Operational buildings	519
Administrative buildings	108

<u>State</u> <u>Tota</u>
Social buildings (schools and hospitals, among others)
Total Espírito Santo
Maranhão
- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
Administrative buildings
Land
Total Maranhão
Minas Gerais
Operational buildings
Administrative buildings
Social buildings (schools and hospitals, among others)
Rural buildings (schools and hospitals, among others)
Land
Total Minas Gerais
Pará
Laboratory
Operational buildings
Administrative buildings
Social buildings (schools and hospitals, among others)
Rural buildings (schools and hospitals, among others)
Land
Total Pará
Rio de Janeiro
Operational buildings
Administrative buildings
Land
Total Rio de Janeiro
Sergipe
Operational buildings
Administrative buildings
Land
Total Sergipe
Total

The total gross floor area of the operational buildings, the administrative buildings and the social and rural buildings listed above amounts to approximately 204,590 square metres, 88,140 square metres and 250,160 square metres, respectively. The total site area of the land listed above amounts to approximately 828,740 square metres. For the purposes of seeking the waiver from the requirement to prepare a valuation of our interests in land and buildings under Rule 5.01 of the Listing Rules, our Company is of the view that the production plants in relation to its iron ore operations in Brazil are not properties which are material to its business operations on the basis that they principally consist of beneficiation/concentration plants in relation to two of its iron ore mining systems, the Southern and Southeastern Systems.

(b) surface rights covering 59,995 hectares in Ontario, Canada, including a combination of mining and surface rights co-owned with third parties covering 1,198 hectares; a smelter, mill, oxygen plant, nickel refinery and office building in Sudbury and a refinery in Port Colborne, Ontario, all located subject to surface rights owned by the Group; a mill, smelter, refinery and office building in Thompson located subject to surface rights owned by the Group in Manitoba, Canada; in

conjunction with the mining lease for Voisey's Bay, Newfoundland and Labrador, Canada, a surface lease entitling the Group to use certain lands necessary for mining operations, upon which the Voisey's Bay mill is located. Like the mining lease, the surface lease is for a period of 25 years, and may be renewed for a further 10-year term. The processing plant being constructed at Long Harbour, Newfoundland and Labrador is also located subject to surface rights owned by the Group. The Group's registered title to those Canadian properties as at the Latest Practicable Date was supported by legal opinion;

- (c) a total of four levels in office buildings together with accommodation for employees in Noumea, New Caledonia. Our hydrometallurgical plant and base camp for the Vale New Caledonia (Goro) mine is located on land with a total area of 7,951,613 square metres rented under a lease with a 52-year term from 7 December 2004. Our Company does not consider that plant to be crucial to its present operations on the basis that is a relatively early stage project which has yet to make a continuing significant contribution to the Group's operating revenues, given it only commenced production in August 2010. The Group's documentary title to those properties as at the Latest Practicable Date was supported by legal opinion;
- (d) certain properties which are utilised as manufacturing plants, power plants, warehouses, a residential complex, an airport, and seaports in Indonesia, mostly located in Sorowako, South Sulawesi and its surrounding areas with one office building in Makassar.

All of the major Indonesian properties mentioned below are covered by two types of land titles, the so-called "right to build" and "right to use". The main difference between the two types of land titles is the term of validity: right to build is valid for 30 years, extendable for 20 years, while right to use is valid for 10 years, extendable for another 10 years; both land titles could be renewed. PTI is entitled to construct buildings on the basis of both types of land rights. PTI currently holds 8 land title certificates covering 6 rights to build and 2 rights to use. The total gross site area covered by those land certificates is 28,630,241 square metres. One of them (under a right to build) covers the land where PTI's processing plant is built, with an area of approximately 745,584 square metres, located in Sorowako Village. This right has been extended to be valid until 13 December 2029.

PTI has acquired a right to build the Balambano Hydropower Plant located at Balambano Village which is valid until 24 September 2030 in a total area of approximately 2,815,400 square metres; and a right to use with respect to the Larona Hydropower Plant with a total area of approximately 18,559,600 square metres, located at Balambano Village. PTI has also obtained a right to build use in respect of the Balantang Port with a total area of approximately 392,000 square metres, located at Balantang Village. The Group's registered title to those Indonesian properties subject to certificates of title described in this Listing Document as at the Latest Practicable Date was supported by legal opinion; and

(e) a construction camp of 32,815 square metres and buildings under construction of 22,273 square metres related to the Moatize Material Reserve in Mozambique. Our Company does not consider that camp to be crucial to its present operations on the basis that it is a relatively early stage project which has yet to make a continuing significant contribution to group operating revenues, given the project is not scheduled to commence production until mid-2011. The Group's registered title application for that camp as at the Latest Practicable Date was supported by legal opinion.

## **LEGAL PROCEEDINGS**

We set out below a summary of the various material legal actions in which our Company and/or its subsidiaries are defendants. The amounts claimed in Reais are stated as of 31 October 2010. Based on legal advice in respect of each of these material legal actions, we are of the view that none would have any material adverse impact on the Group. In arriving at that view, we took into account the facts of each action, the maximum amount of potential liability that may arise under each action and the relative exposure of the Group taking into account the size of its market capitalisation.

#### Praia Mole suit

We were among the defendants in a public civil action filed on 10 November 1997 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. The alleged basis of the claim is that the port is public property. We have defended the claim on the basis that our private right to use the terminal was inherent with the privatisation of our Company. This case was decided in our favour in November 2007 with a decision recognising the validity of that concession agreement, but the plaintiff, the federal public prosecutor, filed an appeal with the federal circuit court on 1 April 2008, which is still pending.

Based on the current progress of this action and legal advice on the claim, we have not made any provision in our consolidated financial statements in respect of this action. It is not our Company's practice to make such provision where, on the basis of such advice, our Company has classified the chances of success for the plaintiff in this claim as remote.

#### **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 on 22 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 programmes in the region. The damages sought, as adjusted from the date of the claim, amount to R\$2,381,364,241.56 (US\$1,399,649,842.22).

There have been hearings in respect of this action, but a decision in respect of this case is still pending agreement upon the submission of expert evidence.

In the other action, filed on 26 September 1996, 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 R\$2,757,524,063.23 (US\$1,620,738,252.75).

This case has been suspended pending findings from another lawsuit.

Based on the current progress of these actions and legal advice on the claims, we have not made any provision in our consolidated financial statements in respect of these actions. It is not our Company's practice to make such provision where, on the basis of such advice, our Company has classified the chances of success for the plaintiff in its principal claims as remote.

## **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. The claim alleges both: (i) chargeability of CFEM on certain of our pelletised iron ore production; and (ii) Vale had over-deducted certain permissible deductions (taxes, insurance, transportation) from sales to arrive at the amounts subject to CFEM. The dispute relates to assessments concerning the years 1991 to 2007 (Southern System) and 1991 to 2009 (Northern System).

The DNPM levying CFEM on the basis claimed is subject to a suspensory injunction pending resolution of the legal proceedings. In respect of assessments relating to the Northern System, first instance decisions have been issued which were partially favourable on the question of permissible deductions. Assessments in both the Northern and Southern Systems remain subject to final judicial resolution. The aggregate amount claimed in the administrative and judicial proceedings is R\$7,630,000,000 (US\$4,484,542,141.77).

We are a defendant in a judicial proceeding brought in 2002 by the Brazilian municipality of Mariana, alleging that we owe that municipality a customary proportion of CFEM claimed to be payable in respect of certain of our pelletised iron ore product. We claim principal defences on the basis of (i) lack of jurisdiction on the part of the municipality to claim, even if CFEM were chargeable on pelletised product; and (ii) CFEM not being chargeable upon iron ore pellets (per the litigation referred to above) in any event. The first instance judgment was partially unfavourable. We have appealed.

We have requested a declaration by way of appeal that CFEM is not chargeable on our pelletised product on a national basis.

We have made a provision of R\$217,408,568 (US\$127,782,161) in our consolidated financial statements for the period of the six months ended 30 June 2010 in respect of potential liability that may arise from this litigation.

We were also involved in litigation with the DNPM regarding the applicable CFEM rate for certain potash products. The DNPM claimed that the relevant potash products should be chargeable at the 3% CFEM rate applicable to the mineral product, notwithstanding its ultimate incorporation into fertilizer nutrient which would otherwise be charged at 2%.

The amount in dispute was R\$39,320,658.52. Based on uncertainty as to the correct legal position, we entered into a settlement agreement with the DNPM which essentially conceded the amount of payment in accordance with DNPM's claim.

## Tax litigation

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 (the **Provisional Measure**).

In 2003, we initiated a legal proceeding challenging the applicability of such regulation based on the following arguments: (i) Article 74 of the Provisional Measure disregards double taxation treaties between Brazil and the countries where some of our subsidiaries are based; (ii) the Brazilian Tax Code prohibits the establishment of conditions 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 favourable decision on the merits of the case at first instance, but we did obtain a preliminary injunction suspending our obligation to pay the disputed amounts.

We appealed from the lower court's decision in July 2005, and the injunction remains in effect pending the outcome of this appeal. The appeal court's decision on the merits is suspended pending the outcome of a parallel lawsuit filed by the Brazilian Industry Association challenging the constitutionality of Article 74 of the Provisional Measure. The outcome of this decision will validate or state the voidability of the provision being challenged. Even if that constitutional claim fails, we presently intend to pursue the other challenges specified above in respect of the Provisional Measure.

Meanwhile, the tax authorities filed two new administrative proceedings on 11 January 2010 and 12 February 2010, respectively, bringing our total claims to four, claiming total payment of R\$26,609,735,000.00 (US\$15,639,905,000.00) from us. The original proceedings, in respect of assessments filed on 10 December 2007 and 28 March 2008, as well as the two new administrative proceedings, are presently the subject of appeals to the second instance administrative court in respect of matters including those aspects of the first instance administrative judgment that were unfavourable to us.

We are contesting these suits. Based on the current progress of these actions and legal advice on the claims, we have not made any provision in our consolidated financial statements in respect of these actions. It is not our Company's practice to make such provision where, on the basis of such advice, our Company has classified the chances of success for the tax authorities in their claims as remote.

We have also initiated one legal proceeding in order to prevent collection of social contribution (CSLL) on export revenues. We had a favourable decision in February, 2008, in order to avoid CSLL taxation on all export operations, but the tax authorities have appealed. Based on such decision, our Company is allowed to exclude export sales revenues from taxable income values and has not been subject to CSLL payment due to a negative tax basis. In August, 2010, the Brazilian Supreme Court (Supremo Tribunal Federal) decided that all export operations are subject to CSLL, but the case is subject to one final appeal. We have a present liability as a result for R\$2,596 million. If the Brazilian Supreme Court's final decision is unfavourable, the payment will be made without penalties.

# Railway litigation

The Brazilian federal rail network, Rede Ferroviária Federal S.A. (RFFSA), succeeded by the Brazilian Government, filed a claim on 18 August 2006 before a Brazilian Court of first instance claiming damages for alleged breach of contract by Vale.

Prior to the commencement of the first step of its privatisation in 1997, Vale entered into a contract in 1994 with RFFSA (which was itself subsequently privatised) to construct two railway networks in Belo Horizonte, Brazil which would be incorporated into an existing segment, in a project called "Transposição de Belo Horizonte". Vale initially omitted to do so.

The amount of damages claimed is R\$2,627,979,530.39 (US\$1,544,598,289.87). Under a related agreement with the Brazilian Government, Vale began the construction of an alternative segment, because the initially agreed segments cannot presently be constructed.

Preceding the filing of the RFFSA lawsuit, Vale filed a claim against RFFSA, succeeded by the Brazilian Government, challenging the inflation adjustment provisions in the contract with RFFSA. Vale contends that the method of calculation employed by the Brazilian Government is not lawful under Brazilian law.

Vale has claimed that the construction costs of the new segment should be capable of set-off against the damages under the original RFFSA claim, which would reduce the amount to be paid significantly.

The lawsuit has yet to be heard and no date has been fixed for a hearing.

Based on the current progress of this action and legal advice on the claim, we have not made any provision in any of our consolidated financial statements in respect of this litigation. It is not our Company's practice to make such provision where we have been advised that, were the construction costs of the new segment set-off against the original claim, it could significantly reduce the value of the claim.

## **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 May 1989, however, the Brazilian Government, through the Brazilian central bank, passed a law prohibiting settlement by delivery, and we were consequently obligated to settle in cash. During these years, Brazil experienced severe inflation, and beginning in 2005, some of the pension funds sued us, claiming that the inflation adjustment provided for in the contracts did not adequately compensate them for monetary losses arising from the Brazilian Government's measures to control inflation during this period. There are 11 such suits. We have prevailed in two cases in the lower court, and the amounts claimed in those cases and the remaining cases are not material. We have lost in the lower courts in four cases, and we are pursuing appeals in those cases. The five remaining cases are still pending decision from the lower courts (fase probatória). The amount claimed is now of R\$491,211,441.55 (US\$288,710,145.50). Based on the current progress of these actions and legal advice on the claims, we have not made any provision in our consolidated financial statements in respect of this litigation. It is not our Company's practice to make such provision where, on the basis of such advice, our Company has classified the chances of success for the plaintiffs in their claims as remote.

As at the Latest Practicable Date, Valepar was interested in approximately 52.7% of the total Common Shares in issue and approximately 1.0% of the total Class A Preferred Shares in issue, and its combined holdings of the Common Shares and Class A Preferred Shares amounted to approximately 32.4% of the total issued share capital of our Company.

Valepar is owned by a group of entities, namely Litel Participações S.A., Eletron S.A., Bradespar S.A., Mitsui & Co., Ltd. and BNDESPAR. Valepar is a holding company incorporated with the sole purpose of holding the Shares in our Company. It does not have any business operations. The table below sets forth information regarding the ownership of the voting common shares of Valepar as at the Latest Practicable Date:

	Common shares owned <sup>(1)</sup>	% of class
Litel Participações S.A. <sup>(2)</sup>		49.00%
Eletron S.A. (3)	380,708	0.03%
Bradespar S.A. (4)		21.21%
Mitsui & Co., Ltd. <sup>(5)</sup>		18.24%
BNDESPAR <sup>(6)</sup>	149,787,385	11.51%
Total	1,300,905,830	100%

#### Notes

- (1) Valepar has in issue three classes of preferred shares namely, class A, B and C. None of the class A or class C preferred shares confer any voting rights. The preferred class B shares confer restricted voting rights relating to amendment of Valepar's by-laws on a limited number of matters. If Valepar fails to pay the minimum dividends to which holders of any class of preferred shares of Valepar are entitled during three consecutive fiscal years, then holders of such class of preferred shares of Valepar will acquire full and unrestricted voting rights.
- (2) As at the Latest Practicable Date, Litel Participações S.A. owned 200,864,272 preferred class A shares of Valepar, which represented 71.41% of Valepar's total preferred class A shares in issue. Litela Participações S.A., an affiliate of Litel Participações S.A., owned 80,416,931 preferred class A shares of Valepar, which represented 28.59% of Valepar's total preferred class A shares in issue. LitelB Participações S.A., also an affiliate of Litel Participações S.A., owned 25,862,068 preferred class C shares of Valepar, which represented 29.25% of Valepar's total preferred class C shares in issue.
- (3) As at the Latest Practicable Date, Eletron S.A. owned 32,729 preferred class C shares of Valepar, which represented 0.04% of Valepar's total preferred class C shares in issue.
- (4) Bradespar S.A. 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. As at the Latest Practicable Date, Bradespar owned 16,137,193 preferred class C shares of Valepar, which represented 18.25% of Valepar's total preferred class C shares in issue. Brumado Holdings Ltda, a subsidiary of Bradespar S.A., owned 7,587,000 preferred class C shares of Valepar, which represented 8.58% of Valepar's total preferred class C shares in issue.
- (5) As at the Latest Practicable Date. Mitsui & Co., Ltd. owned 20,402,587 preferred class C shares of Valepar, which represented 23.08% of Valepar's total preferred class C shares in issue.
- (6) As at the Latest Practicable Date, BNDESPAR owned 18,394,143 preferred class C shares of Valepar, which represented 20.80% of Valepar's total preferred class C shares in issue. It is a wholly-owned subsidiary of BNDES, which is wholly-owned by the Brazilian Government. BNDES is the main vehicle for the execution of the Brazilian Government's investment policy, providing support, either directly or indirectly, to programmes, projects, works and services related to the economic and social development of Brazil. It is the primary domestic source of long-term financing in the Brazilian economy, with special emphasis on private sector investment projects and public sector infrastructure projects.

The table below sets forth information regarding ownership of Litel Participações S.A., one of Valepar's shareholders, as at 31 October 2010:

	Common shares owned	% of class
BB Carteira Ativa	193,740,121	78.40%
Carteira Ativa II	53,387,982	21.60%
Previ	19	_
Others	219	_
Directors and executive officers as a group	4	_
Total	247,128,345	100%

#### Note:

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.

The common shareholders of Valepar are parties to a shareholders' agreement, ending in 2017. Under this agreement, each of the common shareholders of Valepar has the right to veto the transfer by Valepar of any of our Company's shares it holds. The Valepar shareholders' agreement also:

- grants rights of first refusal on any transfer of Valepar shares and pre-emptive rights on any issue of Valepar shares;
- prohibits the direct acquisition of our Company's shares by Valepar's shareholders unless authorised by the other shareholders party to the agreement;
- prohibits encumbrances on Valepar shares (other than in connection with financing an acquisition of our Company's 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 and our Company's boards among representatives of the parties;
- commits the Valepar shareholders to support our Company's dividend policy of distributing 50% of our Company'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 our Company of a capital structure that does not exceed specified debt to equity thresholds;
- requires the Valepar shareholders to vote their indirectly held shares in our Company and to
  cause their representatives on the Board of Directors to vote only in accordance with
  decisions made at the Valepar meetings held prior to meetings of the Board of Directors or
  of the Shareholders; and
- establishes super-majority voting requirements for certain significant actions relating to Valepar and to our Company.

Pursuant to the Valepar shareholders' agreement, Valepar cannot support any of the following actions with respect to our Company without the consent of at least 75% of the holders of Valepar's common shares:

- any amendment of our by-laws:
- any increase of our Company's capital stock by share subscription, creation of a new class of shares, change in the characteristics of the existing shares in our Company or any reduction of our Company's capital stock;

- any issuance of debentures of our Company, whether or not convertible into shares in our Company, participation certificates upon compensation (partes beneficiárias), call options or subscription bonus (bônus de subscrição) or any other security of our Company;
- any determination of issuance price for any new shares of capital stock or other security of our Company;
- any amalgamation, spin-off or merger to which our Company is a party, as well as any change to our Company's corporate form;
- any dissolution, receivership, bankruptcy or any other voluntary act for financial reorganisation or any suspension thereof;
- the election and replacement of the Board of Directors, including the Chairman of the Board, and any of our Executive Officers;
- the disposal or acquisition by our Company of an equity interest in any company, as well as the acquisition of any shares of capital stock of our Company or Valepar;
- the participation by our Company in a group of companies or in a consortium of any kind;
- the execution by our Company of agreements relating to distribution, investment, sales exportation, technology transfer, trade mark licence, patent exploration, licence to use and leases;
- the approval and amendment of our Company's business plan;
- the determination of the compensation of our executive officers and directors, as well as the duties of our Board of Directors and Board of Executive Officers:
- any profit sharing among the members of our Board of Directors or Board of Executive Officers:
- any change in our Company's corporate purpose;
- the distribution or non-distribution of any dividends (including distributions classified as interest on Shareholders' equity) on any shares of capital stock of our Company other than as provided in our by-laws;
- the appointment and replacement of our Company's independent auditor;
- the creation of any "in rem" guarantee, granting of guarantees including rendering of sureties by our Company 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 our Company in subsidiaries, companies related to our Company or other companies in which our Company is entitled to appoint directors and officers; and
- any change in the debt to equity threshold, as defined in the Valepar shareholders' agreement.

In addition, the Valepar shareholders' agreement provides that any issuance of participation certificates by our Company and any disposition by Valepar of the shares in our Company it holds requires the unanimous consent of all of Valepar's shareholders.

### **DIRECTORS NOMINATED BY VALEPAR**

Among the current eleven Directors, ten Directors were nominated by Valepar, namely Ricardo José da Costa Flores (Chairman), Mário da Silveira Teixeira Júnior (Vice-chairman), José Ricardo Sasseron, Jorge Luiz Pacheco, Sandro Kohler Marcondes, Renato da Cruz Gomes, Ken Abe, Oscar Augusto de Camargo Filho, Luciano Galvão Coutinho and José Mauro Mettrau Carneiro da Cunha. José Mauro Mettrau Carneiro da Cunha was appointed by Valepar as (a) non-controlling holders of our Common Shares who attended the Shareholders' meeting at which the appointment of those directors was approved, individually or collectively, did not meet the relevant shareholding threshold required for the exercise of their right to appoint Directors prescribed under our Bylaws and; (b) the non-controlling holders of our Class A Preferred Shares did not nominate a candidate.

### INDEPENDENCE FROM VALEPAR

The Board is satisfied that, on the basis of the following matters, the Group is capable of carrying on its business independently of, and will not place undue reliance on, Valepar, after the Introduction.

## Management independence

Our Company has a Board of Directors and a Board of Executive Officers. The Board of Directors sets general policies and guidelines for our business and monitors their implementation and does not participate in our daily operations. The Board of Executive Officers is responsible for our day-to-day operations and reports to the Board of Directors. None of the members of the Board of Executive Officers holds any office or position in Valepar.

Any Director or member of the Board of Executive Officers who has a material interest (direct or indirect) in any contract or any conflicting interest in any matter to be considered at any meeting of the Board of Directors or the Board of Executive Officers (as the case may be) is required to disclose such interest at such meeting and to refrain from taking part (or by any means intervening) in any resolution or action related to the matter in which he has a material interest. In the event of a failure to observe this rule, the relevant Director or Executive Officer will be subject to the sanctions prescribed by Brazilian law, and the resolution to approve the matter in which he has a conflict of interest is voidable.

## Operational independence

We are not dependent on Valepar in carrying on our business operations. We have independent access to our suppliers and transact with our customers independently from Valepar. We do not lease any of our material properties, plants or machines from Valepar.

## Financial independence

We are not financially dependent on Valepar.

### **BOARD OF DIRECTORS**

The Board of Directors is responsible for setting general policies and guidelines for our business and monitors their implementation and does not participate in our daily operations.

Our By-laws provide that the Board of Directors is to be made up of eleven directors, one of whom must be nominated by our employees. Holders of the Common Shares and the Preferred Shares have the right to nominate the other members of the Board of Directors, pursuant to their different voting rights with respect to the election of members of the Board of Directors as more particularly described in the section of this Listing Document headed "Share capital".

The following table lists the current members of the Board.

<u>Director<sup>(1)</sup></u>	Appointment date	Position
Ricardo José da Costa Flores <sup>(2)</sup>	November 2010	Chairman
Mário da Silveira Teixeira Júnior	April 2003	Vice-Chairman
José Ricardo Sasseron	April 2007	Director
Jorge Luiz Pacheco	April 2003	Director
Sandro Kohler Marcondes	April 2007	Director
Renato da Cruz Gomes	April 2001	Director
Ken Abe	April 2009	Director
Oscar Augusto de Camargo Filho	October 2003	Director
Luciano Galvão Coutinho	August 2007	Director
Eduardo Fernando Jardim Pinto <sup>(3)</sup>	April 2009	Director
José Mauro Mettrau Carneiro da Cunha <sup>(4)</sup>	June 2010	Director

<sup>(1)</sup> Appointed by Valepar and elected in Shareholders' meeting unless otherwise indicated.

Set forth below are the biographies of the current Directors:

**Ricardo José da Costa Flores**, aged 46, has been the chairman of our Board and a member of our strategy committee since November 2010.

He has been the President of PREVI — Caixa de Previdência dos Funcionários do Banco do Brasil (a private pension fund) since June 2010 and the chief executive officer of Valepar since 25 November, 2010. His nomination as the chairman of Valepar will be considered at the shareholders' meeting of Valepar to be held on 6 December 2010. He has also been the chairman of Brasilcap Capitalização S.A. since October 2007, Banco Nossa Caixa S.A. from January 2009 to November 2009 and Ativos S.A. — Securitizadora de Créditos Financeiros from May 2004 to August 2007. He was the vice-president of the credit, accounting and global risk management committee of Banco do Brasil from April 2009 to May 2010, where he served as the vice-president of government relations from June 2008 to April 2009, as the officer responsible for insurance, pension plans and capitalisation from August 2007 to May 2008 and as an officer of operational assets restructuring from May 2004 to July 2007. He was a director of Brasilprev Seguros e Previdência S.A. from October 2007 to August 2008, Brasilsaúde Companhia de Seguros S.A. from October 2007 to September 2008, and Brasilveículos Companhia de Seguros S.A. from October 2007 to August 2008. He has been a member of the fiscal council of various energy companies, namely, Companhia Energética de Pernambuco — CELPE from March 2004 to March 2006, Companhia Energética do Rio Grande do Norte — COSERN from April 2006 to January 2008, and both CPFL Geração de Energia S.A. and Companhia Paulista de Força e Luz, from April 2002 to April 2004.

He has been the president of FENACAP — Federação Nacional de Capitalização since January 2008, and the vice-president of CNSEG — Confederação Nacional das Empresas de Seguros Gerais, Previdência Privada e Vida, Saúde Complementar e Capitalização since January 2008. He currently

<sup>(2)</sup> Nominated by the Board of Directors on 25 November 2010.

<sup>(3)</sup> Appointed by our employees and elected in Shareholders' meeting.

<sup>(4)</sup> Appointed by Valepar and approved in Shareholders' meeting held on 22 June 2010.

serves as a member on the panel of CODEFAT — Conselho Deliberativo do Fundo de Amparo ao Trabalhador (Labour and Employment Ministry) as a representative of FENASEG (Federação Nacional das Empresas de Seguros Privados e Capitalização) since January 2010. He was also an executive officer of FEBRABAN — Federação Brasileira de Bancos from June 2009 to June 2010.

He received a degree in economics from the Centro de Ensino de Brasília — CEUB, Faculdade de Ciências Econômicas, Contábeis e Administração do Distrito Federal, Brasília, in March 1990. He obtained a post-graduate degree in project analysis from Fundação Getúlio Vargas in 1988, and in project development from the Instituto de Planejamento Econômico e Social (IPEA/CENDEC) in 1989. He received a master of business administration degree in general basic high executives development from Universidade de São Paulo (USP) in December 1994 and a master of business administration degree in controller from FIPECAFI/USP in December 1996.

**Mário da Silveira Teixeira Júnior**, aged 64, has been a Director since April 2003, our vice-chairman since May 2003 and the vice-chairman of the board of Valepar since 2003. He has been a permanent member of our strategy committee since 2006.

He has been a member of the board of Banco Bradesco S.A. (a Brazilian privately-owned bank) since 2002 and a member and coordinator of the internal controls and compliance committee and a member of the remuneration committee of Banco Bradesco S.A. since 2004. He was also a member and coordinator of the audit committee of Banco Bradesco S.A. from 2004 to 2009. He has been a member of the boards of directors of Bradespar S.A. (the investment entity of the Bradesco group and one of the shareholders of Valepar) since 2002, Bradesco Leasing S.A. — Arrendamento Mercantil (a company in the Bradesco group engaged in leasing business) since 2004, Cidade de Deus — Companhia Comercial de Participações (a holding company with investments in the Bradesco group) since 2002 and Elo Participações S.A. since 2006. He was a member of the boards of Banco Bradesco S.A. from March 1999 to July 2001, Bradesco Seguros S.A. (a company in the Bradesco group engaged in insurance business) from 2004 to 2005 and Banco Espirito Santo de Investimentos S.A. (a Brazilian privately-owned bank) from 2002 to 2009. He has been an officer of Elo Participações S.A. since 2006, NCF Participações S.A. since 2002 and Nova Cidade de Deus Participações S.A. since 2002 and a managing director and member of the deliberative council of Fundação Bradesco (the Bradesco foundation engaged in non-profit activities in Brazil) since 2002.

Mr. Teixeira was a member of the boards of directors of various energy and other companies namely, Companhia Paulista de Força e Luz — CPFL from 2001 to 2005, CPFL Energia S.A. from 2003 to 2006, CPFL Geração de Energia S.A. from 2003 to 2005, Companhia Piratininga de Força e Luz from 2003 to 2005, VBC Energia S.A. from 2003 to 2005, VBC Participações S.A. from 2003 to 2005, Companhia Siderúrgica Nacional — CSN (a steel company) from 1996 to 2000, Latasa de Alumínio S.A. — LATASA (now known as Rexam Beverage Can South America S.A., a company engaged in the production of metallic packages) from 1992 to 2000, São Paulo Alpargatas S.A. (a textile company) from 1997 to 1999 and Tigre S.A. — Tubos e Conexões (a producer of plastic accessories for the construction business) from 1997 to 1998.

Mr. Teixeira received a degree in civil engineering and in business administration from Universidade Presbiteriana Mackenzie, São Paulo in December 1970 and December 1980, respectively.

**José Ricardo Sasseron**, aged 54, has been a Director and a member of our executive development committee since April 2007 and a member of the board of Valepar since 2007.

He is the social security officer of Previ, a member of the Conselho de Gestão e Previdência Complementar (CGPC) (a Brazilian pension fund) and the president of the Associação Nacional dos Participantes de Fundo de Pensão (ANAPAR) (the Brazilian National Association for Participants of Pension Funds) since 2001. He has also been an executive officer of Litel Participações S.A. since 2007, LitelB Participações S.A. since 2008 and Litela Participações S.A. since 2007.

He acted as the chairman of the board of Sauípe S.A from 2005 to 2007. He served as a member of the advisory board and deliberative council of Previ from 2004 to 2006 and the chairman of the fiscal council of Previ from 1996 to 1998. He received a degree in history from Universidade de São Paulo (USP) in November 1983.

**Jorge Luiz Pacheco**, aged 56, has been a Director since April 2003 and the manager of strategic investments at Previ since 2000.

He is currently a director of Valepar and an officer of Litel Participações S.A.. He has also been a member of our governance and sustainability committee since 2007 and was an alternate member of the Board of Directors from 2003 to 2005.

He is also a manager of strategic investments for Previ since 2000 and an alternate member of the fiscal council of Companhia Siderúrgica-Belgo Mineira, (now known as Arcelor Brasil S.A.), a publicly-held company which has interests in steel companies.

He received a degree in economics from Universidade Cândido Mendes in November 1996 and post-graduate degrees in finance and business management from Instituto Brasileiro de Mercado de Capitais (IBMEC) in Rio de Janeiro in January 2005.

**Sandro Kohler Marcondes**, aged 46, has been a Director since April 2007 and an alternate member of the board of directors of Valepar since 2009.

Prior to joining the Group, he worked in various capacities in Banco do Brasil S.A., both in Brazil and abroad from 1982, becoming an officer since July 2005. Since 2005, he has been a commercial officer responsible for the relationship with client-entities of Banco do Brasil S.A., where he also occupied the post of international officer from 2008 to 2009. He has also been the managing officer of BB Leasing S.A. Arrendamento Mercantil, a privately-held company engaged in leasing business, since 2005, an executive officer of BB Securities Ltd and BB Securities LLC since 2005 and a director of BB Tur Viagens e Turismo Ltda., an agency focused on corporate travels, since 2005.

He received a bachelor's degree in business administration from the Universidade Estadual de Guarapuava in December 1986 and a master's degree from Fundação Getúlio Vargas (FGV) in São Paulo in April 1993.

**Renato da Cruz Gomes**, aged 57, has been a Director and a member of our governance and sustainability committee since April 2001, an executive officer and a member of the board of Valepar since 2001.

He has acted as an executive officer of Bradespar S.A. since 2000.

Mr. Gomes held a variety of positions at BNDES from 1976 to 2000 and served on the boards of directors of Aracruz Celulose S.A. (now known as Fibria S.A.) (a publicly-held company which produces cellulose), lochpe Maxion S.A. (a publicly-held company which produces parts and accessories for motor vehicles), Bahia Sul Celulose S.A. (now known as Suzano Celulose S.A.) (a publicly-held company which produces cellulose and other substances used to make paper), Globo Cabo S.A. (now known as NET S.A.) (a publicly-held company television company) and Latasa de Alumínio S.A. — LATASA (now known as Rexam Beverage Can South America S.A.).

Mr. Gomes received a degree in engineering from Universidade Federal do Rio de Janeiro in December 1976 and a graduate degree in management development from Sociedade de Desenvolvimento Empresarial (SDE).

Ken Abe, aged 63, has been a Director since April 2009.

He has been a representative and executive vice-president of Mitsui & Co., Ltd. since June 2008, a member of the board of directors of Mitsui Oil Exploration Co., Ltd. (a private company in the oil and gas business) since 2009 and Tekko Kaikan (a private company engaged in providing services to Japanese metallurgy companies) since 2008.

Prior to joining the Group, he held a variety of positions at Mitsui & Co., Ltd., a publicly-held company in Japan. He was the administrative officer and head management executive on trade in iron mineral, general income for metallurgy and non-iron metals from 2004 to 2006, senior and head of operations in Europe from 2006 to 2007 and administrative senior officer and head of operations in Europe, Middle-East and Africa from 2007 to 2008. He also was a member of the board of Valepar from October 2003 until April 2006.

He received a degree in economics from Waseda University, Japan in March 1970.

Oscar Augusto de Camargo Filho, aged 72, has been a Director since October 2003, a member of our strategic committee since 2006 and a member of our development executive committee since 2003.

He was a director of Valepar from 2005 to 2008 and has been a partner of CWH Consultoria Empresarial since 2003.

He served as the chairman of the board of MRS from 1999 to 2003 and chief executive officer and a member of the board of CAEMI — Mineração e Metalurgia S.A. (CAEMI) (a publicly-held mining and metallurgy company, which merged with the Company in 2006), where Mr. Camargo Filho also held various other positions from 1973 to 2003. From 1963 to 1973, Mr. Camargo Filho held positions at Motores Perkins S.A., including commercial officer and sales and services manager.

He graduated with a law degree from Universidade de São Paulo (USP) in December 1963.

Luciano Galvão Coutinho, aged 64, has been a Director since August 2007 and a member of our strategic committee since 2009. He is also currently the president of BNDES.

Prior to joining the Group, he was the partner of LCA Consultores from 1995 to 2007 and an executive secretary of the Ministry of Science and Technology from 1985 to 1988. He was a partner at Macrotempo Consultoria from 1990 to 2007 (a private consulting firm), a member of the board of directors of Ripasa S.A. Celulose e Papel from 2002 to 2005 (a publicly-held company which produces cellulose and paper), a member of the board of directors of Guaraniana (now known as Neoenergia S.A.) (a publicly-held electricity company), a member of the International Consultive Council from Fundação Dom Cabral (an educational institution), a member of the Curator Council from Fundação Nacional da Qualidade (an entity to promote the development of high standards of management) and a member of the Director Council from Fundo Nacional de Desenvolvimento Cientifico e Tecnológico.

Mr. Coutinho is an invited professor at Universidade Estadual de Campinas (UNICAMP) and has been a visiting professor at Universidade de São Paulo, University of Paris XIII, University of Texas and Ortega y Gasset Institute.

He received a degree in economics from Universidade de São Paulo in June 1969, where Mr. Coutinho was awarded the Gastão Vidigal prize for best economics student. He also received a master's degree in economics from the Economic Research Institute of Universidade de São Paulo in June 1970 and a doctor's degree in economics from Cornell University in January 1975.

**Eduardo Fernando Jardim Pinto**, aged 47, has been a Director since April 2009 and is currently a coordinator of CUTVALE.

He was a member of the Board from 2005 to 2007 and was the president of the railroad employees union in the states of Pará, Maranhão and Tocantins. Since 1983, Mr. Jardim Pinto has held several positions at our Company, including as a specialised train conductor.

He received a law degree from Faculdade São Luís, Maranhão in July 2006.

José Mauro Mettrau Carneiro da Cunha, aged 60, has been a Director since June 2010.

He is the chairman of the board of directors of Tele Norte Celular Participações S.A., Telemar Norte Leste S.A., Brasil Telecom S.A., and Calais Participações S.A. He is also a director of Santo

Antonio Energia S.A., Lupatech S.A., Coari Participações S.A., and an alternate member of the board of directors of Telemar Participações S.A. and Log-In. He also served as a director of Braskem S.A. from 2007 to April 2010, LIGHT Serviços de Eletricidade S.A. from 1997 to 2000, Aracruz Celulose S.A. from 1997 to 2002, Politeno Indústria e Comércio S.A. from 2003 to 2004, BANESTES S.A. — Banco do Estado do Espírito Santo from 2008 to 2009, and TNL from 1999 to 2003, where he afterwards served as an alternate of the board of directors in 2006.

He received a degree in mechanical engineering from Universidade Catolica de Petropolis, Rio de Janeiro in December 1971 and attended an executive programme in management at Anderson School, University of California, Los Angeles, United States in December 2002.

#### **BOARD OF EXECUTIVE OFFICERS**

The Board of Executive Officers is responsible for our day-to-day operations and reports to the Board of Directors.

Under our By-laws, the Board of Executive Officers is to be made up of six to eleven members, one of whom shall be the Chief Executive Officer. Members of the Board of Executive Officers are elected by the Board of Directors.

The following table lists the current Executive Officers.

	Appointment date	<u>Position</u>
Roger Agnelli	July 2001	Chief Executive Officer
Guilherme Perboyre Cavalcanti	August 2010	Chief Financial and Investor Relations Officer
José Carlos Martins	April 2004	Executive Officer (Marketing, Sales and Strategy)
Eduardo de Salles Bartolomeo	January 2007	Executive Officer (Integrated Operations)
Carla Grasso	October 2001	Executive Officer (Human Resources and Corporate Services)
Eduardo Jorge Ledsham	May 2010	Executive Officer (Exploration, Energy and Projects)
Mario Alves Barbosa Neto	May 2010	Executive Officer (Fertilizers)
Tito Botelho Martins Junior	April 2006	Executive Officer (Basic Metals Operations)

Set forth below are the biographies of the current Executive Officers:

Roger Agnelli, aged 51, has been the chief executive officer of our Company since July 2001.

Within the Group, he acted as Chairman of the Board of Directors from May 2000 until July 2001. He has been a permanent member of our strategy committee since 2001 and member of our disclosure committee since 2002. He has been chairman of the board of directors of Vale Canada since 2007.

He has been a member of the board of ABB Ltd since 2002 (a publicly-held company in the technology sector) and a member of the global advisory board of Anadarko Petroleum Corporation since 2009.

He was a director of Spectra Energy Corp. (a publicly-held energy company) from 2007 to 2008, Suzano Petroquimica S.A. (now known as Quattor Petroquímica S.A.) (a publicly-held resin producer) from 2005 to 2007 and Duke Energy (a publicly-held energy company) from 2004 to 2006. He was a director of Petróleo Brasileiro S.A. — PETROBRAS from 2006 to 2007. He was the president and chief executive officer of Bradespar S.A. from March 2000 to July 2001 and an executive director of Banco Bradesco from 1998 to 2000. He was also a member of the board of directors of Companhia Paulista Força e Luz, Companhia Siderúrgica Nacional (CSN), Latasa de Alumínio S.A. — LATASA, (now known as Rexam Beverage Can South America S.A.), Serra da Mesa

Energia S.A., (now known as VBC Energia S.A.), Brasmotor S.A., Mahle Metal Leve S.A. and Rio Grande Energia S.A..

He has been a member of the International Advisory Committee of NYSE since 2005, vice-president of the Centre of Industries of the State of Rio de Janeiro, a member of the Strategic Superior Council of the Federation of Industries of the State of São Paulo, a member of the Private Sector Advisory Council (CONEX) of the Foreign Trade Chamber of the Presidency of Brazil, a member of the International Advisory Investment Council to the president of the Republic of Mozambique and a member of the Economic and Social Development Council, an advisory body to the President of Brazil during the period from 2003 to 2007.

He received a degree in economics from Fundação Armando Álvares Penteado in São Paulo in December 1981.

Guilherme Perboyre Cavalcanti, aged 42, has been our Chief Financial and Investor Relations Officer since 26 August 2010. He has also been a permanent member of our finance committee and risk management executive committee and a member of our disclosure committee since August 2010. He was previously our global head of corporate finance. He has been a member of the board of Log-In since 2007. He was also a member of the board of directors of Net Serviços de Comunicação from 2002 to 2005 and treasury director of Globo Comunicações e Participações S.A. He received a master's degree in economics from Pontíficia Universidade Católica in Rio de Janeiro in June 1995.

**José Carlos Martins**, aged 60, has been the Executive Officer responsible for Marketing, Sales and Strategy of our Company since May 2010. He served as the executive officer for ferrous minerals of our Company from April 2005 to May 2010 and an executive officer of our Company for new business development from April 2004 to March 2005.

Within the Group, he has been chairman of the board of directors of Vale International S.A. since 2006, a member of the board of Samarco Mineração S.A. since 2005 and he was vice-chairman of Baosteel CSV from 2008 to 2009.

He has been vice-president of the deliberative council of Thyssenkrupp CSA Siderúrgica do Atlantico Ltda. since 2008.

He was a director of USIMINAS from 2005 to 2006 and 2008 to 2009.

He acted as the president of Rexam in South America for aluminium can production and marketing, the president of Latasa de Alumínio S.A. — LATASA from 1999 (until Rexam UK bought Latasa in 2003), an executive officer for steel production of CSN from 1997 until 1999 and the chief executive officer at Aços Villares S.A., where Mr. Martins held several important positions from 1986 to 1996.

He received a degree in economics from Pontifícia Universidade Católica in São Paulo in January 1975.

**Eduardo de Salles Bartolomeo**, aged 46, has been the Executive Officer responsible for Integrated Operations of our Company since May 2010.

Within the Group, Mr. Bartolomeo served as executive officer of logistics, project management and sustainability from April 2009 to May 2010; executive officer of logistics, engineering and project management from November 2008 to March 2009; executive officer of logistics from January 2007 to October 2008; and officer of the logistics operations department from January 2004 to July 2006.

He has been chairman of the board of directors of Ferrovia Norte Sul S.A., a company specialising in freight transportation, since 2007, chairman of the board of directors of Log-In since 2007 and director of MRS from 2008 to 2009.

In addition, he was chief executive officer of Petroflex Indústria e Comércio S.A. from August to December 2006 and regional officer of Cia. de Bebidas das Américas — AmBev from 2003 to 2004.

He received a degree in metallurgical engineering from Universidade Federal Fluminense (UFF) in January 1988 and a masters of business administration degree from Katholieke Universiteit in Leuven, Belgium in December 1993.

Carla Grasso, aged 48, has been the Executive Officer responsible for Human Resources and Corporate Services of our Company since October 2001, where she was executive officer responsible for management, human resources and IT from 1997 to 2000.

She has been a member of Curator's Council of Fundação Vale since 2006 and the chief of personnel, management and information technology at our corporate centre from 1997 to October 2001.

She has been a director of Stora Enso Oyj, (a company which produces paper, packages and wooden products) since March 2010.

She received a degree in economics and a master's degree in economic policies from Universidade de Brasília in January 1985 and May 1990, respectively and attended executive education programmes at INSEAD in France, IMD in Switzerland in December 2007 and Sloan School of Management, Massachusetts Institute of Technology in the United States in October 2005.

**Eduardo Jorge Ledsham**, aged 48, has been the Executive Officer responsible for Exploration, Energy and Projects of our Company since May 2010.

Within Vale, Mr. Ledsham served as global officer of exploration and project energy and fertilizer development from 2008 to 2010 and officer of exploration and mineral project development-Brazil, America, Africa, Asia and Oceania from 2005 to 2007.

He has been chairman of the board of directors of Vale Óleo e Gás S.A. (a company specialising in searching, prospecting, exploring and developing hydrocarbon fields, as well as other related activities) since May 2009; chairman of the board of directors of CADAM S.A. (a company specialising in mineral extraction) since December 2009; director of Rio Doce Australia Pty Ltd (a coal exploration company) since June 2006; and director of Vale Australia (EA) Pty Ltd. (a coal company) since April 2010.

He received a degree in geology from Universidade Federal de Minas Gerais (UFMG) in December 1985; graduate degrees in finance from Instituto Brasileiro de Mercado de Capitais (IBMEC) in December 1994, in companies and projects evaluation from Fundação Getúlio Vargas (FGV) in December 1996 and management from Fundação Dom Cabral in December 1997; and attended executive education programmes on mergers and acquisitions at Harvard Business School in March 2000 and management at IMD in June 2007 and Massachusetts Institute of Technology in February 2007.

**Mário Alves Barbosa Neto**, aged 64, has been the Executive Officer responsible for Fertilizers since May 2010.

He was chief executive officer of Bunge Fertilizantes S.A. from 2000 to 2010 in which he also served as a member of the advisory board since 2005; chief executive officer of ANDA — Associação Nacional para Difusão de Adubos from 1992 to 2010; chairman of the board of directors of Fosbrasil S.A. from 1996 to 2010; chairman of the board of directors of Fertifos — Administração e Participações S.A. from 1997 to 2009; chairman of the board of directors of Fertilizantes Fosfatados S.A. — Fosfertil since 2005, where he also held the position of chief executive officer and investor relations officer from 1992 to 1996; chairman of the board of directors of Ultrafertil S.A. since 2007; member of the board of directors and chief executive officer of Bunge Brasil S.A. (formerly known as Serrana S.A.) from 1996 to 2005 and before that, Moinho Santista Indústrias Gerais S.A.; executive officer of BPI — Bunge Participações e Investimentos S.A. from 2006 to 2010; director of Santista Têxtil S.A. (now known as Tavex Brasil Participações S.A.) from 1996 to 2000; and chief financial officer and investor relations officer of Manah S.A. from 1980 to 1992.

He received a degree in engineering production from Escola Politécnica da Universidade de São Paulo (USP) in 1969 and post-graduate degree in business administration from Fundação Getúlio Vargas (FGV) in 1974.

**Tito Botelho Martins Junior**, aged 47, has been the Executive Officer responsible for Basic Metals Operations since May 2010 and a member of our risk management committee since 2008.

He was the executive officer for non-ferrous minerals of our Company from December 2008 to May 2010, executive officer for non-ferrous and energy from April to November 2008, executive officer for corporate affairs and energy from 2007 to 2008, executive officer for corporate affairs from 2006 to 2007 and managing officer of the corporate finance department from 1999 to 2003.

He has been the president and chief executive officer of Vale Canada since 2008.

He is the president of the Curator Council of Vale do Rio Doce de Habitação e Desenvolvimento Social — FVRD, a charity organization sustained by our Company.

He has been chairman of the boards of directors of Alunorte — Alumina do Norte do Brasil S.A., Albras — Alumínio Brasileiro S.A. and Companhia de Alumina do Pará since 2008, all of which are companies controlled by our Company.

He was the chief executive officer of CAEMI from 2003 to 2006, chairman and chief executive officer of Mineração Corumbaense Reunidas S.A. from 2003 to 2006 and managing officer of the corporate finance department of our Company from August 1999 to September 2003.

He was vice chairman of the board of directors Ferrovia Norte Sul S.A. from 2007 to 2008 and a director of MRS from 2004 to 2006.

Previously, Mr. Martins was a member of the boards of directors of Ferrovia Centro-Atlântica S.A., (a transport company), Samarco Mineração S.A., FERROBAN — Ferrovias Bandeirantes S.A. (a transport company) and Aço Minas Gerais S.A. (Açominas) (a steel production company).

He received a degree in economics from Universidade Federal de Minas Gerais in December 1984, a master's degree in management from Universidade Federal do Rio de Janeiro in November 1985 and attended executive education programmes at INSEAD in France in December 2000 and at the Kellogg School of Management of Northwestern University in the United States in August 1993.

On 17 January 2007, CVM fined Mr. Martins, as investor relations officer of Caemi Mineração e Metalurgia S.A.'s, R\$500,000 for not disclosing promptly a "fato relevante" regarding the execution of loan agreements with related parties. The appeal to the CRSFN — Conselho de Recursos do Sistema Financeiro Nacional for reversal of this decision is still pending.

On 22 August 2006, all the officers of Ferrovia Centro-Atlântica S.A. (FCA) including Mr. Martins, as finance officer, were reprimanded for not observing the provision contained in section 7 of article 170 of the Corporations Act, in the context of a capital increase. At that time, the CVM argued that the proposal for a capital increase did not contain a detailed economic basis for determining the issuance value of FCA's shares. The appeal to the CRSFN — Conselho de Recursos do Sistema Financeiro Nacional for reversal of this decision is still pending.

### FISCAL COUNCIL

We have established a Fiscal Council on a permanent basis pursuant to the By-laws in accordance with Brazilian law. The primary responsibilities of the Fiscal Council are to monitor the activities of our executive management, review our financial statements and report its findings to the Shareholders. We are required by both SEC and the NYSE listed company audit committee rules to comply with the United States Exchange Act Rule 10A-3, which requires, absent an exemption, a standing audit committee composed of members of the Board of Directors that meet specified requirements. In lieu of establishing an independent audit committee, we have given our

Fiscal Council the necessary responsibilities to qualify for the exemption set forth in the United States Exchange Act Rule 10A-3(c)(3). These responsibilities include:

- (a) establishing procedures for the receipt, retention and treatment of complaints related to accounting, controls and audit issues, as well as procedures for confidential or anonymous submission of concerns of such matters:
- (b) recommending and assisting the Board in the appointment, establishment of compensation and dismissal of the independent auditors;
- (c) pre-approving services to be rendered by the independent auditors;
- (d) overseeing the work performed by the independent auditors, with powers to suspend the payment of compensation to the independent auditors; and
- (e) resolving disagreements between our management and the independent auditors regarding financial reporting.

The Fiscal Council is responsible for monitoring the activities of the executive management, reviewing financial statements and reporting its findings to our Shareholders. It also performs the role of an audit committee under the NYSE rules.

Our By-laws provide that the Fiscal Council is to be made up of three to five members. The Common Shares and the Preferred Shares carry different voting rights with respect to the election of members of the Fiscal Council. Please refer to the section of this Listing Document headed 'Share capital' for more details.

Members of the Fiscal Council must meet certain eligibility requirements under the Corporations Act. These include: (i) no member of the Fiscal Council may hold office, concurrently, as a member of the Board of Directors, fiscal council or any advisory committee of any company whose business competes with our business or otherwise has any conflicting interest with our Company, unless an express waiver is granted by Shareholders in general meeting; (ii) no member of the Fiscal Council may be an employee or a member of the management of our Company or any of our subsidiaries or affiliates; and (iii) no member of the Fiscal Council may be a spouse or relative within the third degree by affinity or consanguinity of any Director or Executive Officer.

We believe the Fiscal Council satisfies the independence and other requirements of the Exchange Act Rule 10A-3 that would apply in the absence of our reliance on the exemption.

The Board of Directors has determined that one of the members of the Fiscal Council, Mr. Aníbal Moreira dos Santos, is an audit committee financial expert. In addition, Mr. Moreira dos Santos meets the applicable independence requirements for Fiscal Council membership under Brazilian law and the NYSE independence requirements that would apply to audit committee members in the absence of our reliance on the exemption set forth in the Exchange Act Rule 10A-3(c)(3).

We have applied for, and the Stock Exchange has granted, a waiver from strict compliance with the requirement under Rule 3.10 of the Listing Rules to appoint at least three independent non-executive directors on condition that the Fiscal Council will assume and perform all the duties and obligations required to be performed by independent non-executive directors under the Listing Rules (subject to certain exceptions). For more details, see the section in this Listing Document headed "Waivers - Appointment of independent non-executive directors".

The Company has ascertained that all three members of the Fiscal Council appointed by Valepar are able to meet the independence requirements under Rule 3.13 of the Listing Rules and that Mr. Aníbal Moreira dos Santos is able to meet the requirement for possessing the appropriate professional qualifications or accounting or related financial management expertise under Rule 3.10 of the Listing Rules.

We have applied for, and the Stock Exchange has granted us, a waiver from the requirement to establish an audit committee on condition that the Fiscal Council will also perform the role of the audit committee under the Listing Rules. Please refer to the section in this Listing Document headed "Waivers" for more information.

The following table lists the current members of the Fiscal Council.

Current member	First year of appointment
Nelson Machado <sup>(1)</sup>	2008
Marcelo Amaral Moraes <sup>(2)</sup>	

<sup>(1)</sup> Appointed by holders of Class A Preferred Shares.

Set forth below are the biographies of the current members of the Fiscal Council:

**Nelson Machado**, aged 62, has been a member of the Fiscal Council since 2010 and an executive secretary of the Ministry of Finance since 2007.

He is currently a member of the board of Caixa Econômica Federal (CAIXA) and member of the board of Brasilprev Seguros e Previdência S.A. (BRASILPREV), both financial institutions. Mr. Machado is also a member of the board of Petrobras Química S.A. — PETROQUISA, a holding company which invests in the chemicals business.

Prior to joining the Group, he was the Minister of Social Security from 2005 to 2007, executive secretary from 2003 to 2005 and interim minister from 2004 to 2005 of the Ministry of Planning, Budget and Management and a member of the board of Brasilcap Capitalização S.A. (BRASILCAP) from 2007 to 2010.

He received a doctor's degree in accounting and controlling from FEA/USP on 17 August 2004.

Antonio José de Figueiredo Ferreira, aged 56, has been a member of the Fiscal Council since April 2008.

He was the chairman of our accounting committee (previously known as audit committee) from May 2003 to April 2008. He served as the internal auditing chief of Previ from 1996 to May 2007. Mr. Ferreira worked for Banco do Brasil for 32 years, where he held positions in the audit and information technology areas.

He received a degree in mechanical engineering from Universidade Estadual do Rio de Janeiro on 17 February 1982, a law degree from Universidade Federal do Rio de Janeiro on 15 July 2007, a masters of business administration degree in internal auditing at Universidade de São Paulo (USP) on 4 December 1997 and a masters of business administration degree in finance and corporate law at Fundação Getúlio Vargas (FGV) in Rio de Janeiro on 5 December 2000. He received a certificate from the executive education programme in management and attended the private pension programme at the Wharton School of the University of Pennsylvania in the United States on in 1998.

Marcelo Amaral Moraes, aged 43, has been a member of the Fiscal Council since 2004. Mr Moraes is also a member of the investment committee of Fundo Brasil Mezanino Infra-Estrutura — FIP. He was managing director for specialised funds of Grupo Stratus from August 2006 to September 2010.

He worked as an investment manager at Bradespar for six years and in the mergers and acquisitions and capital markets departments of Banco Bozano, Simonsen from 1995 to 2000. He was an alternate member of the board of Net Serviços S.A. in 2004 and an alternate member of the Board in 2003.

<sup>(2)</sup> Appointed by Valepar.

He received a degree in economics from Universidade Federal do Rio de Janeiro in 1991 and a masters of business administration degree from Universidade Federal do Rio de Janeiro/COPPEAD in 1993.

**Aníbal Moreira dos Santos**, aged 72, has been a member of the Fiscal Council since 2005 and of the fiscal council of Log-In since April 2009.

From 1998 until his retirement in 2003, he served as an executive officer of several CAEMI subsidiaries, including Caemi Canada Inc., Caemi Canada Investments Inc., CMM Overseas, Ltd., Caemi International Holdings BV and Caemi International Investments NV.

He was a member of the Fiscal Council of CADAM S.A. from 1999 to 2003 and an alternate member of the board of Mineração Brasileiras Reunidas S.A. and Empreendimentos Brasileiros de Mineração S.A. (EBM) from 1998 to 2003 and the chief accounting officer of CAEMI from 1983 to 2003.

He received a degree in accounting from Fundação Getúlio Vargas (FGV) in Rio de Janeiro on 5 April 1962.

#### **ADVISORY COMMITTEES**

The By-laws establish the following technical and advisory committees to the Board:

- our executive development committee is responsible for reporting on general human resources
  policies, analysing 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. Our executive development
  committee will perform the role of the remuneration committee under the Listing Rules,
  subject to the exceptions described in the section of this Listing Document headed "Waivers";
- our strategy committee is responsible for reviewing and making recommendations to the Board concerning the strategic guidelines and plan submitted annually to the Board by our Executive Officers, our annual and semi-annual investment budgets, investment or divestiture opportunities submitted by Executive Officers, and mergers and acquisitions;
- our finance committee is responsible for reviewing and making recommendations to the Board 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;
- our 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, monitoring the results of our internal auditing, and identifying, prioritising, and submitting recommendations to the Executive Officers, and analysing and making recommendations with regard to our annual report and financial statements; and
- our governance and sustainability committee is responsible for evaluating and recommending improvements to the effectiveness of our corporate governance practices and the functioning of the Board, recommending improvements to the Code of Ethical Conduct and our management system in order to avoid conflicts of interests between our Company and the Shareholders or management, issuing reports on potential conflicts of interest between our Company and the Shareholders or management, and reporting on policies relating to corporate responsibility, such as environmental and social responsibility.

The By-laws establish the following technical and advisory committees to the Board of Executive Officers:

- our risk management committee is responsible for overseeing and reviewing our risk management strategies and periodically reporting to the Board of Executive Officers on the major risks and exposures faced by our Company and their impact on our cash flow; and
- our disclosure committee is responsible for assessing the significance of events or facts related to our business and overseeing the process of disseminating information about them to the markets.

### **MANAGEMENT COMPENSATION**

### **Board of Directors**

Members of the Board receive a fixed monthly fee. The alternate members receive a fixed monthly fee equivalent to 50% of the fee paid to the members of the Board. The amount of the fixed fee is aligned with market value. The overall annual compensation for management, including the members of the Board of Directors, the Board of Executive Officers, the Fiscal Council and the advisory committees is set at the Shareholders' annual general meeting and allocated by the Board of Directors. The members of the Board of Directors are eligible to receive a private pension from our Company's pension fund (Valia — Fundação Vale do Rio Doce de Seguridade Social).

Members of the Board of Directors are not currently entitled to variable compensation, postemployment benefits triggered by the termination of their appointment or stock-based compensation.

### **Fiscal Council**

Members of the Fiscal Council receive a fixed monthly fee, which is equivalent to 10% of the average compensation paid to members of the Board of Executive Officers, excluding benefits, representation monies, and profit shares. Aside from this fixed compensation, members of the Fiscal Council have the right to the reimbursement of their transportation, board and lodging expenses incurred while undertaking their duties. Alternate members are compensated when they undertake the function when a seat is vacant, or when the member of the Fiscal Council in question is absent or unable to exercise the function. The fees payable to members of the Fiscal Council are adjusted in line with any adjustment made to the compensation payable to the Board of Executive Officers.

Members of the Fiscal Council are not currently entitled to variable compensation, postemployment benefits triggered by the termination of their appointment or stock-based compensation.

### **Advisory Committees**

Members of the advisory committees (which include the strategy committee, finance committee, executive development committee, accounting committee, and governance and sustainability committee) receive payment by reference to the number of meetings they attend on those committees, such payment being the same as the monthly fee payable to the alternate members of the Board of Directors. The committee members who are otherwise part of our Company's management will not be eligible for extra compensation for acting as members on the committees. The compensation payable to the members of the advisory committees is adjusted in line with any adjustment made to the compensation payable to members of the Board.

Members of the advisory committees are not currently entitled to variable compensation, postemployment benefits triggered by the termination of their appointment or stock-based compensation.

### **Board of Executive Officers**

## Fixed compensation

The Executive Officers are paid a fixed monthly compensation set according to competitive market rates and adjusted annually by reference to inflation. The aim of the fixed monthly compensation is to remunerate the services rendered by the Board of Executive Officers within the scope of their responsibilities in managing our Company.

#### **Benefits**

The Executive Officers are also entitled to certain benefits that are compatible with market terms, including private healthcare, hospital and dental care, private pension scheme and life insurance.

## Results sharing

The Executive Officers are eligible to receive an annual payment (results sharing bonus) based on our Company's earnings and defined by indicators and objectives, measurable targets derived from the strategic plan and the annual budget approved by the Board of Directors. The main objective of the bonus is to acknowledge an executive's contribution to our Company's performance and earnings.

## Post-employment benefits

The Executive Officers also benefit from medical and dental insurance provided by our Company for up to 12 months after their resignation to allow them to seek alternative insurance cover.

### ILP Plan (Long-Term Incentive Plan)

The Executive Officers may participate in the ILP Plan. The ILP Plan is a variable payment based on our Company's expected performance in the future, with the objective of retaining management personnel. The sum is determined at 75% to 125% of the bonus (results share) for the Executive Officers translated, for reference purposes only, into a number of Common Shares, based on the average closing price of the Common Shares on BM&FBOVESPA over the last sixty trading days of the previous year. If the Executive Officer remains in office at the end of three years thereafter, the number of virtual shares is transformed into a pecuniary value based on the average closing price of the Common Shares on BM&FBOVESPA over the last sixty trading days in the third year. The programme also compares our Company's performance against other companies of a similar size. Should our Company come out first in this ranking, the amount calculated is increased by 50%. This percentage is reduced on a sliding scale, and as of 15th place in the ranking, no payment is made. The programme was introduced in 2007, with the first payment having been made in January 2010.

## Matching Plan

The Matching Plan is a variable, long-term form of compensation based on our Company's expected performance in the future. Under the Matching Plan, any eligible employee may elect to invest part of his bonus in Shares. If the employee remains in our employment and continues to hold all the Shares after three years, he 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 he purchased under the Matching Plan.

For details of the aggregate remuneration of Directors and the Board of Executive Officers for the financial periods ended 31 December 2007, 2008 and 2009, please see Appendix VIII to this Listing Document.

### **EMPLOYEE WAGES AND BENEFITS**

Wages and benefits for our Company and our subsidiaries are generally established on a company-by-company basis. We establish our wage and benefits programmes for ourselves and our subsidiaries, other than Vale Canada, in periodic negotiations with unions. In November 2009, we reached a two-year agreement with the Brazilian unions, which is valid until November 2011. A salary increase of 7% was implemented in November 2009 for our employees in Brazil as part of a two-year agreement reached in 2009. The provisions of our Company's collective bargaining agreements with its unions also apply to our Company's non-unionised employees. Vale Canada establishes wages and benefits for its unionised employees through collective agreements. For non-unionised employees, Vale Canada undertakes an annual review of salaries. We and our subsidiaries provide our employees and their dependants with other benefits, including supplementary medical assistance.

#### PENSION PLANS

Brazilian employees of our Company and of most of our Brazilian subsidiaries are eligible to participate in pension plans managed by Fundação Vale do Rio Doce de Seguridade Social (Valia). Sponsored by us and our subsidiaries, Valia is a 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 to cover temporary or permanent disability, pension and financial protection to dependants in case of death. Valia also operates a defined benefit plan, closed to new participants since May 2000, 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.

Our wholly-owned subsidiary Vale Canada 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. With effect from 1 January 2009, the defined benefit plan for non-unionised staff employees in Canada was closed to new participants. A defined contribution plan was introduced for new employees with effect from 1 July 2009, and existing employees will have the opportunity to elect to move from the defined benefit to the defined contribution plan with effect from 1 January 2010. Vale Canada's subsidiary, Vale Newfoundland and Labrador Limited, has a defined contribution pension plan. In addition, Vale Canada provides supplemental retirement benefits arrangements for eligible employees.

#### **SHARE OPTION SCHEMES**

Neither our Company nor any of our subsidiaries has adopted any share option scheme which falls within Chapter 17 of the Listing Rules.

### **COMPLIANCE ADVISER**

Our Company has appointed J.P. Morgan Securities (Asia Pacific) Limited as its compliance adviser in compliance with Rule 3A.19 of the Listing Rules.

J.P. Morgan Securities (Asia Pacific) Limited will assist and provide our Company with guidance and advice as to compliance with the requirements under the Listing Rules and applicable Hong Kong laws.

The term of its appointment will commence on the Listing Date and end on the date on which our Company complies with Rule 13.46 of the Listing Rules in respect of its financial results for the first full financial year after the Listing Date (which shall mean 31 December 2011).

### **CAPITAL STRUCTURE**

The table below sets out details relating to our share capital as at the Latest Practicable Date.

Authorised share capital<sup>(1)</sup>:

3,600,000,000	
Issued, fully paid or credited	as fully paid <sup>(2)</sup> :
3,256,724,482	Common Shares in issue

2,108,579,606..... Class A Preferred Shares in issue

12..... Golden Shares in issue

#### Notes:

#### TWO CLASSES OF SHARES

Our share capital is currently divided into two classes of shares: (i) Common Shares and (ii) Preferred Shares. The two classes of Shares were first issued at the time of our incorporation on 11 January 1943. The Preferred Shares are further divided into Class A Preferred Shares and Golden Shares. All of the issued Shares are registered shares with no nominal value.

In accordance with our privatisation deed, the Shareholders' meeting held after the privatisation approved the introduction of the Golden Share to be exclusively owned by the Brazilian Government which carried special veto rights over certain matters specified in the By-laws. After subsequent share splits, there are now 12 Golden Shares in issue. All of the Golden Shares are owned by the Brazilian Government. For more information on the rights attached to the Golden Shares, please refer to "Voting rights" below.

The By-laws do not provide for the conversion of the Preferred Shares into Common Shares. The Preferred Shares do not carry any preferential right to return of capital on liquidation or any right of redemption.

Any change in the preferences or advantages of the Preferred Shares or the creation of a class of shares having priority over the Preferred Shares would be subject to the veto right of the holder of the Golden Shares. In addition to this, if the variation of rights would be prejudicial to the interests of those holders or would result in changes to the relative ratios between the different classes of Preferred Shares, the Special Approval of our Shareholders in a general meeting and the Special Approval of the holders of the outstanding Preferred Shares pertaining to the class(es) negatively affected, voting as a class at a special meeting, is required. Any other changes to class rights which are not considered to be prejudicial to the interests of the relevant class of Shareholders do not require a separate class vote and only require the Special Approval of Shareholders in a general meeting.

Under the By-laws, the Preferred Shares (including both the Class A Preferred Shares and the Golden Shares) and the Common Shares carry different voting rights with respect to the election and removal of members of the Board of Directors and the Fiscal Council, different rights to dividends and in the case of the Golden Shares, veto rights on a limited number of matters as described below. Otherwise, the Preferred Shares and the Common Shares carry the same voting and economic rights.

<sup>(1)</sup> The By-laws authorise the issue of shares forming part of the authorised share capital of the Common Shares and the Class A Preferred Shares by the Board without any further approval by Shareholders.

<sup>(2)</sup> Including 47,375,394 Common Shares and 99,649,571 Class A Preferred Shares in treasury.

### Voting rights

## Right to vote on the election and removal of members of the Board of Directors

Holders of the Common Shares have full voting rights with respect to the election and removal of the Directors. In addition, the Corporations Act and our By-laws provide that the majority of holders of the Common Shares (other than the Controlling Shareholder) in attendance at a Shareholders' meeting called to elect members of the Board with a holding of at least 15% of the total number of the Common Shares in issue may, separately, elect and remove one Director (and his alternate).

Holders of the Preferred Shares are only entitled to restricted voting rights on the election and removal of the Directors. The Corporations Act and our By-laws provide that the majority of holders of the Preferred Shares (other than the controlling Shareholder) in attendance at a Shareholders' meeting called to elect members of the Board with a holding of at least 10% of the total number of Shares in issue may, separately, elect and remove one Director (and his alternate). Otherwise, holders of the Preferred Shares are not entitled to vote on the election or removal of the Directors.

If, at any time, holders of the Common Shares (other than the controlling Shareholder) in attendance at a Shareholders' meeting called to elect members of the Board represent less than 15% of the total number of the Common Shares in issue, and holders of the Preferred Shares (other than the controlling Shareholder) in attendance at such Shareholders' meeting represent less than 10% of the total number of Shares in issue, then any of the non-controlling holders of the Common Shares or Preferred Shares who, together, have a combined holding of at least 10% of the total number of Shares in issue may, separately, elect and remove one Director (and his alternate).

The above restriction on the voting rights of the Preferred Shares will cease to apply if our Company fails to pay the minimum annual non-cumulative preferential dividend payable to the holders of the Preferred Shares (see below) for three consecutive financial years until such dividend is fully paid.

## Right to vote on the election and removal of members of the Fiscal Council

Holders of the Common Shares have full voting rights with respect to the election and removal of members of the Fiscal Council. In addition, the Corporations Act and our By-laws provide that the majority of holders of the Common Shares (other than the Controlling Shareholder) in attendance at a Shareholders' meeting called to elect members of the Fiscal Council with a holding of at least 10% of the total number of the Common Shares in issue may, separately, elect and remove one member of the Fiscal Council (and his alternate).

Holders of the Preferred Shares are, however, only entitled to restricted voting rights on the election and removal of members of the Fiscal Council. The Corporations Act and our By-laws provide that holders of the Preferred Shares have the right to elect and remove only one member of the Fiscal Council (and his alternate). Otherwise, holders of the Preferred Shares are not entitled to vote on the election or removal of members of the Fiscal Council.

The above restriction on the voting rights of the Preferred Shares will cease to apply if our Company fails to pay the minimum annual non-cumulative preferential dividend payable to the holders of the Preferred Shares for three consecutive financial years until such dividend is fully paid.

# Right to preferential dividend

Holders of the Preferred Shares are entitled to a minimum annual non-cumulative preferential dividend equivalent to (i) at least 3% of the book value per Share, calculated in accordance with our financial statements, which serve as reference for the payment of dividends; or (ii) 6% of their pro rata share of our total paid-up capital, whichever is higher.

The amount of dividends declared by our Company in any year must first be applied to satisfy the preferential dividend payable on the Preferred Shares. Any dividend remaining will then be paid

to the holders of the Common Shares up to an amount equivalent to the total preferential dividend paid on the Preferred Shares. Any further amount of dividend remaining will then be distributed among holders of the Common Shares and Preferred Shares on a pro rata basis.

## Right to veto certain matters

In addition to the different rights attached to the Preferred Shares described above, the Golden Shares also carry the right to veto the following matters in our general meeting and neither the Class A Preferred Shares nor the Common Shares carry this right:

- any change in our Company's name;
- any change in the location of our Company's head office;
- any change in the corporate purpose of our Company with reference to mineral exploitation;
- the winding up of our Company;
- the sale or cessation of the activities of any part or the whole of the following components of our integrated iron ore systems:
  - mineral deposits, reserves and mines;
  - railways; or
  - ports and maritime terminals;
- any alteration to the rights assigned to the classes of Shares issued by our Company under the By-laws; and
- any alteration to any of the rights assigned to the Golden Shares, including the veto rights described in this paragraph.

#### REDEMPTION RIGHT

The Common Shares and Preferred Shares are not redeemable, except that a dissenting shareholder is entitled under the Corporations Act to obtain redemption upon a decision made at a Shareholders' meeting by Shareholders representing the majority 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 authorised by the By-laws);
- (2) to modify a preference, privilege or condition of redemption or amortisation 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 with another company or to consolidate or divide our Company;
- (6) to transfer all of our shares to another company in order to make us a wholly-owned subsidiary of such company (that is, a stock merger);
- (7) to approve the acquisition of control of another company at a price which exceeds certain limits set forth in the Corporations Act;
- (8) to approve our participation in a centralised group of companies as defined under the Corporations Act; or

(9) in the event that the entity resulting from (a) a merger, (b) a stock merger 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 Shareholders 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 Shares do not satisfy certain tests of liquidity, among others, at the time of the Shareholders' 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 holders of the Preferred Shares (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 general Shareholders' 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 jeopardise our financial stability. Any redemption pursuant to the Corporations Act would be made at no less than the book value per share, determined on the basis of the last balance sheet approved by 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 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.

#### PRE-EMPTIVE RIGHT

Each Shareholder has a general pre-emptive right to subscribe for Shares in any capital increase, or issue of warrants or convertible securities, in proportion to his or her shareholding. A minimum period of 30 days following the publication of notice of a capital increase has to be provided for the exercise of the right, and the right is transferable.

In the event of an increase in the number of Shares of all existing types and classes in the same proportion, each Shareholder shall have pre-emptive right to subscribe for Shares of the same type or class as those he owns; if the Shares issued are of the existing types or classes but the respective proportions in the capital are altered, holders of the same types or classes shall have pre-emptive rights to subscribe for the new Shares issued, and holders of another type or class of Shares may only subscribe for the new Shares issued if their existing Shares are insufficient to assure them the same proportion as they had in the capital before the increase; in the event of an issue of Shares of a new type or class, each Shareholder shall have pre-emptive right to the new Shares issued, in proportion to his shareholding.

Under the By-laws, our Board may issue Shares, convertible securities or subscription bonuses (or warrants) without any pre-emptive rights to our existing Shareholders, or reduce the 30-day period granted for the exercise of pre-emptive rights under the Corporations Act on the issue of Shares, convertible securities or subscription bonuses (or warrants) in the event of a sale of Shares on a stock exchange or a capital increase offered for public subscription.

### **TAG-ALONG RIGHT**

According to the Corporations Act, in the event of a sale of control of a company, the acquirer is obliged to offer to holders of voting shares the right to sell their shares for a price equal to at least 80% of the price paid for the voting shares representing control. In the case of our Company, however, any such acquirer would not be obliged under the Corporations Act to extend such offer to holders of the Preferred Shares (including holders of the ADRs or HDRs evidencing Class A Preferred Shares). Please refer to the section headed "Takeover Regulations" in Appendix V to this Listing Document for further details.

### MANDATORILY CONVERTIBLE NOTES

In 2009, Vale Capital II, our wholly-owned subsidiary, issued mandatorily convertible notes in two series, both due on June 15, 2012. The series VALE-2012 notes (in the principal amount of US\$293 million) are mandatorily convertible into ADSs representing an aggregate maximum of 18,415,859 Common Shares. The series VALE.P-2012 notes (in the principal amount of US\$649 million) are mandatorily convertible into ADSs representing an aggregate maximum of 47,284,800 Class A Preferred Shares. These notes are listed on NYSE.

The Company has irrevocably and unconditionally guaranteed the performance and full and punctual payment of all of Vale Capital II's obligations in respect of these notes. Both the VALE-2012 and the VALE-P.2012 notes bear interest at 6.75% per annum. The notes are unsecured and unsubordinated obligations of Vale Capital II. The conversion rights attached to the notes were not intended to be covered by treasury Shares underlying the relevant ADSs.

The mandatorily convertible notes of Vale Capital II may be converted before maturity. The conversion rate for all series will depend on the market price of the ADSs on the conversion date. Under the indentures governing the notes, additional remuneration 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 ADR Depositary 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.

### SHARE PRICE HISTORY

The tables below set forth, for the periods indicated, the highest and lowest closing prices of the Common Shares and Class A Preferred Shares as quoted on BM&FBOVESPA, and the high and low closing sale prices of the ADSs representing the Common Shares and Class A Preferred Shares on NYSE.

Year	Commor	Shares Low	Clas Preferred High		ADSs rep the Comm	resenting ion Shares Low	the C	resenting lass A d Shares Low
_	(Rea	ais)	(Re	ais)	(US	SD)		SD)
2005	24.87	16.00	21.84	13.63	11.27	6.40	9.89	5.48
2006	32.15	21.86	27.32	18.55	15.17	9.88	13.13	8.05
2007	62.70	29.30	55.60	25.45	37.75	13.76	31.59	11.83
2008	72.09	22.10	58.70	20.24	43.91	8.80	35.84	7.95
2009	50.30	27.69	43.37	23.89	29.53	11.90	25.66	20.20
Quarter	Commor High	n Shares Low	Class A F Sha High		ADSs rep the Comm	resenting non Shares Low	the Ċ	resenting lass A d Shares Low
	(Rea	ais)	(Re	ais)	(U	SD)	(U:	SD)
2008								
First quarter	62.50	45.00	52.50	40.61	37.22	26.57	31.22	23.90
Second quarter	72.09	55.44	58.70	46.75	43.91	34.44	35.84	28.61
Third quarter	55.01	33.80	46.04	30.30	34.50	16.70	28.56	15.32
Fourth quarter	36.39	22.10	32.70	20.24	18.61	8.80	16.90	7.95
2009								
First quarter	38.75	27.69	32.48	23.89	17.70	11.90	14.70	10.36
Second quarter	40.00	31.50	33.79	27.05	20.83	13.82	17.70	11.93
Third quarter	41.77	31.89	37.02	27.75	23.28	15.88	20.73	13.73
Fourth quarter	50.30	40.05	43.37	35.67	29.53	22.30	25.66	19.90

	Commo	n Shares		Preferred		resenting ion Shares	ADSs rep the Cl Preferre	lass A
Quarter	High	Low	High	Low	High	Low	High	Low
	(Re	ais)	(Re	ais)	(US	SD)	(US	5D)
2010								
First quarter	57.45	47.16	49.55	40.80	32.29	25.18	27.76	21.91
Second quarter	59.85	43.65	51.34	37.50	34.55	23.98	29.46	20.20
Third quarter	52.30	42.85	46.30	37.52	31.27	24.34	27.75	21.09

#### SUBSTANTIAL SHAREHOLDERS

Pursuant to the CVM Rules, Shareholders (other than our Directors, Executive Officers and members of the Fiscal Council) who acquire an interest or short position of 5% or more in the Securities of our Company (see definition in Appendix IV to this Listing Document) within the meaning of the CVM Rules are required to inform our Company of such acquisition. Further, such Shareholders must inform our Company of any further acquisition or any disposal of an interest or short position in 5% or more in any Securities of our Company.

We have applied for, and the SFC has granted, a partial exemption under section 309(2) of the SFO from the provisions of Part XV of the SFO (other than Division 5, 11 and 12) for Shareholders to notify their interests in our securities and for us to prepare registers and maintain records, on condition, among others, that we will file with the Stock Exchange all disclosures of interests made public in Brazil and the United States as soon as practicable on the basis that the Stock Exchange will publish such disclosures in the same way as those it receives from other listed corporations pursuant to Part XV of the SFO.

As far as we are aware, the following persons, not being Directors, Executive Officers or members of the Fiscal Council, held 5% or more in the Securities of our Company within the meaning of the CVM Rules as at the Latest Practicable Date:

	Common Shares owned	% of class <sup>(3)</sup>	Class A Preferred Shares owned	% of class <sup>(3)</sup>
Valepar <sup>(1)</sup>	1,716,435,045	52.7	20,340,000	1.0
BNDESPAR	218,386,481 <sup>(2)</sup>	6.7	69,432,771	3.3

#### Notes:

<sup>(1)</sup> For information about the shareholders of Valepar, please refer to the section in this Listing Document headed "Relationship with Valepar".

<sup>(2)</sup> This figure does not include Common Shares beneficially (as opposed to directly) owned by BNDESPAR (as to which see the section in this Listing Document headed "Relationship with Valepar").

<sup>(3)</sup> Including Shares in treasury.

The following discussion should be read in conjunction with our consolidated audited financial statements for the financial years ended 31 December 2007, 2008 and 2009 and the six months ended 30 June 2010, together with the accompanying notes to the financial statements included in Appendix I to this Listing Document; and the unaudited interim financial information for the three months ended 30 September 2010 included in Appendix II to this Listing Document. We have prepared our consolidated financial statements in accordance with US GAAP, which differ in certain material respects from generally accepted accounting principles in other jurisdictions, including Hong Kong.

For further information on risks that could affect the accuracy of forward-looking statements in the items referred to in this section and our results of operations, please refer to the section in this Listing Document headed "Risk factors"

#### Overview

### Six months ended 30 June 2010

In the first half of 2010, we had our best performance since the peak of the global financial crisis in the third quarter of 2008. Our first-half results reflect rising global demand for minerals and metals, control of operating costs and efforts to increase production, as well as the implementation of a new pricing regime for iron ore and iron ore pellets beginning in the second quarter of 2010.

In the first half of 2010, we generated net income attributable to Shareholders of US\$5,309 million, an increase of US\$3,156 million, or 146.6%, compared to the first half of 2009. The growth in net income was driven primarily by a US\$4,031 million increase in operating income, reflecting higher sale volume and sale prices in connection with the global economic recovery. The increase in operating income was partially offset by a change in non-operating expenses of US\$2,393 million, comprising basically the negative effects due to devaluation of *Reais* against U.S. Dollars of swap transactions structured to convert our Real denominated debt into U.S. Dollars. For the six months ended June 2009, those operations generated a positive result due to the appreciation of *Reais* against U.S. Dollars.

## Financial year ended 31 December 2009

The year 2009 was a year of significant challenges brought on by a major recession that caused one of the few instances of global GDP contraction over the last 40 years. As a producer of minerals and metals, the end consumers of our products are primarily the manufacturing and construction industries, two of the most cyclical components of economic activity and thus severely affected by recessions.

While severe economic downturns often cause serious negative effects on financial and operational performance, they also create extraordinary opportunities for companies that embrace change and structural transformation. We leveraged our competitive advantages — low-cost, world-class assets, a healthy balance sheet, a large pool of liquidity, discipline in capital allocation, a highly skilled and motivated labour force and an entrepreneurial spirit — to launch several initiatives to make us stronger in the future, seeking to reduce costs on a permanent basis and increase efficiency. We did not cancel any investment project, and identified new growth opportunities, and as a result we believe our growth potential was enhanced.

Despite weaker performance compared to previous years, our response to the recessionary environment heightened our capacity to create sustainable shareholder value. Below are the main highlights of our performance in 2009:

Gross operating revenue of US\$23.9 billion;

- Net income of U\$\$5.3 billion, or U\$\$1.00 per share on a fully diluted basis;
- Operating margin, measured as the ratio of operating income to net operating revenues, of 26.0%:
- Operating income of US\$6.1 billion;
- Capital expenditures, including organic growth and maintenance, reached US\$9.0 billion;
   and
- Strong financial position, supported by large cash holdings of US\$11.0 billion, availability of significant medium and long-term credit lines and a low-risk debt portfolio.

## Financial year ended 31 December 2008

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 were 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 were the main steps we took to counteract the effects of the global recession. We also focused on cost minimisation, operational and financial flexibility and reconciliation of cash preservation with the pursuit of profitable growth options. Given powerful cash generation, large cash holdings and a low-risk debt portfolio, we were 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 our 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 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 Canada.
- 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 recognised in the fourth quarter, which in turn reduced net income by 19.7% compared to the third quarter of 2008.

### Financial year ended 31 December 2007

The year 2007 was our fifth consecutive year of record growth in revenues, operating income and net income. The main highlights of our performance in 2007 were:

- Record sales volumes of iron ore and pellets (296 million metric tons), copper (300,000 metric tons), alumina (3.253 million metric tons) and aluminium (562,000 metric tons).
- Gross operating revenue of US\$33.115 billion, a 62.6% increase over 2006.
- Net income of US\$11.825 billion, an 81.1% increase over 2006. The increase in net income
  was driven primarily by a 72.8% increase in operating income, reflecting a 64.1% increase
  in net operating revenue, and an increase in non-operating income of US\$1.847 billion, due
  primarily to higher foreign exchange and monetary gains.
- Investment, excluding acquisitions, of US\$7.625 billion, the highest in the global mining and metals industry in 2007.
- Investment in corporate social responsibility of US\$652 million, of which US\$401 million was allocated to environmental preservation and US\$251 million to social projects.

Our growth in 2007 reflected three primary factors. First, we benefited from a broader portfolio of assets and the globalisation of our operations following the acquisition of Vale Canada. In 2007, US\$11.880 billion of net operating revenue was attributable to a full year of consolidation of Vale Canada. Second, we experienced strong demand and rising prices for our principal products driven principally by continued strong demand from China and expanded demand from our other markets in Asia and Europe. Finally, we maintained high production levels, supported by new projects coming on stream, operation at full capacity at most of our units, and productivity gains.

### Factors affecting the Group's Financial Results

## Demand and prices

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

	Year ended 31 December			
	2007	2008	2009	
	(US\$ per	metric ton, exce indicated)	ept where	
Iron ore	45.33	67.32	55.99	
Iron ore pellets	78.62	131.76	73.75	
Manganese	107.34	350.46	147.06	
Ferroalloys	1,311.48	2,709.60	1,395.26	
Nickel	37,442.28	21,662.14	14,596.55	
Copper	6,611.27	6,331.07	5,229.39	
Kaolin	195.88	194.06	216.52	
Potash	264.09	591.18	521.46	
Platinum (US\$/oz)	1,314.25	1,557.07	1,073.98	
Cobalt (US\$/lb)	24.56	31.01	10.03	
Aluminium	2,784.70	2,805.86	1,686.87	
Alumina	338.76	348.42	226.46	
Bauxite	36.08	41.47	34.15	
Coal:				
Thermal coal	53.73	85.38	66.60	
Metallurgical coal	67.37	170.55	115.55	

### 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. Iron ore and iron ore pellets are priced according to 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.

In general, our iron ore sales are made pursuant to long-term supply contracts. Since April 2010, we have reached agreements on a new iron ore pricing regime with all our iron ore clients around the globe based on short-term market references and price changes on a quarterly basis. These agreements, some of which are permanent and some of which are provisional, involve 100% of sales volumes under contracts. Previously, a majority of our contracts provided for annual price adjustments. Our 2009 annual reference prices for iron ore fines decreased by 28.2%, and prices for our iron ore pellets were 44.5% lower than in 2008. Carajás iron ore fines were priced at a premium of US\$0.0444 per dry metric ton Fe unit over the 2009 reference price for fines from the Southeastern and Southern Systems.

China's iron ore imports in 2009 reached an all-time high of 627.8 million metric tons, an increase of 41.6% on a year-on-year basis, driven by growth in steel production and increasing reliance on imported iron ore.

We expect Chinese imports to remain at a high level for the remainder of 2010, primarily due to strength in the final demand for carbon steel. The increase in capacity utilisation rates of the steel industry in Japan, Korea, Brazil and Europe, although somewhat below pre-crisis levels, coupled with very large Chinese import volumes, has produced a dramatic change in the global iron ore market from surplus to excess demand, and these conditions should persist.

## 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.

### Nickel

Nickel is an exchange-traded metal, listed on LME, that is mainly used to produce stainless steel. 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. Demand for nickel is strongly affected by stainless steel production, which accounts on average for 60 to 65% of global nickel consumption. Nickel demand for sources of consumption other than stainless steel production represents 35 to 40% of global nickel consumption.

We have short-term fixed-volume contracts with customers for the majority of our expected annual nickel sales. These contracts, together with our sales for non-stainless steel applications (alloy steels, high nickel alloys, plating and batteries), provide stable demand for a significant portion of our annual production. In 2009, a majority of our refined nickel sales were made into non-stainless steel applications. As a result of our focus on such higher-value segments, our average realised nickel prices for refined nickel have typically exceeded LME cash nickel prices.

Primary nickel (including ferro-nickel, nickel pig iron and nickel cathode) and secondary nickel (that is, 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 price and

availability. In 2009, the stainless steel scrap ratio fell from 49% to 43%. Nickel pig iron production is estimated to have reached 7% of the global supply of primary nickel, compared to 5% in 2008.

We expect strong demand for nickel for the remainder of 2010. Stainless steel production has picked up in major Asian producing countries, including China, Japan, Korea and Taiwan. In North America and Europe, utilisation rates are also increasing. The per capita consumption of stainless steel in high-growth emerging economies is still low, and there is still great potential for demand of non-stainless steel applications to grow. The demand for nickel in plating applications is expanding as a consequence of the recovery of the automobile industry. Similarly, there is growing demand for non-stainless steel applications originating from a number of industries including aerospace, energy, electronics and batteries.

### 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 LME and 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 six months after the shipment date.

Copper consumption is expanding at a brisk pace, partly as a result of gradual global economic recovery. Given the structural limitations to growth in the supply of concentrates, we believe there is fundamental support for a relatively high price level in the near term.

## Fertilizer nutrients

Demand for fertilizers is driven by global agricultural production, which is a function of food demand and is driven mainly by population growth, age distribution, economic development and dietary preferences. Rising population and declining arable land will continue to drive fertilizer application to increase yield and productivity. Rapid per capita income growth in emerging economies is changing diet behavior towards an increasing intake of proteins that ultimately contributes to crease additional demand for grains and fertilizer use. In addition, biofuel has emerged as an alternative source of energy to reduce world reliance on fossil fuel, being the main source of climate-changing greenhouse gases. The cultivation of sugar cane, corn and palm, being the main crops used for the production of biofuels, involves intensive use of fertilizers. We believe the rising global demand for food and biofuels will be key to the continued growth in demand for fertilizers.

#### 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 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.

### Logistics

Demand for our transportation services in Brazil is primarily driven by Brazilian economic growth, mainly in the agricultural and steel sectors. 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 levels**

Our financial performance depends, among other factors, on the volume of production at our facilities. Increases in the capacity of our facilities, resulting from our capital expenditure programme, accordingly have an important effect on our performance. In 2008 and 2009, our results were also affected by our decision to reduce or suspend production at several of our facilities in late 2008 as a result of the economic crisis, and by the resumption of normal operations in the second half of 2009 with the global economic recovery.

Production at our Canadian operations have been affected by industrial disputes, and any of our operations may be affected by them in future. For further details of the industrial disputes in Canada, please see the section in this Listing Document headed "Business — Employees and labour relations".

Our results have also been affected by acquisitions and dispositions of businesses or assets, and they may be affected in the future by new acquisitions or dispositions. For more information on acquisitions and dispositions since the beginning of 2009, see the sections in this Listing Document headed "Business — Overview" and "Business — Mining and Exploration Operations".

## 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 (64% in 2009) and the Canadian
  Dollar (16% in 2009). As a result, changes in exchange rates affect our costs and operating
  margins. Our margins are adversely affected by a decline in the value of the U.S. Dollar.
- Most of our long-term debt is denominated in currencies other than the Real, principally
  the U.S. Dollar (US\$14,700 million at 30 June 2010). 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.
- We had Real-denominated debt of US\$6,789 million at 30 June 2010. Since most of our revenue is in U.S. Dollars, we use swaps 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, the section in this Listing Document headed "Financial information Risks affecting the Group's Financial Results".

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 currency 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 strong against the Real and the Canadian Dollar during the first half of 2009 but began to depreciate in the second half of the year. At 30 June 2010, the U.S. Dollar had appreciated 3.5% against the Real and 1.4% against the Canadian Dollar relative to 31 December 2009. These currency price changes affect our operating margins and result in higher foreign exchange gains and gains on derivatives.

### 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. 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 and nickel products), personnel, and depreciation and depletion. Our selling, general and administrative expenses consist principally of personnel expense, sales expense and depreciation. 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.

## **Critical Accounting Policies**

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, please see Note 3 to our 30 June 2010 consolidated financial statements included in Appendix I to this Listing Document.

## Mineral reserves and mines' lifespan

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 calculation methods of our ore reserve estimations are made is to determine the mine lifespan used in recording the fair value of the obligations related to the mine closing procedures, including environmental-related and site reclamation-related costs and the periods over which we amortise our mining assets. Any change in our estimations of total expected future mine or asset lifespan could have an impact on the depreciation, depletion and amortisation 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 capitalised as appropriate. These ongoing programmes are designed to minimise the environmental impact of our activities.

We recognise 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 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 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 30 June 2010 we estimated the fair value of our aggregate asset retirement obligations at US\$1,162 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 amortised 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 recognised 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 determined that the

goodwill associated with the acquisition of Vale Canada, included within the reportable segment "Non-ferrous — nickel," was partially impaired at 31 December 2008.

The impairment charge recorded in operating results in the fourth quarter of 2008 was US\$950 million. We did not recognise any impairment in 2009 or during the six months ended 30 June 2010.

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 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 2010. 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.

#### **Derivatives**

We are required to recognise all derivative financial instruments, whether designated in hedging relationships or not, on our balance sheet and to measure such instruments at fair value. The gain or loss in fair value is included in current earnings, unless the derivative to which the gain or loss is attributable qualifies for hedge accounting. We have entered into cash flow hedges that qualify for hedge accounting. Unrealised fair value adjustments to cash flow hedges are recognised in other comprehensive income. 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, and we enter into such transactions 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 Board of Executive Officers. 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. During 2009, we implemented hedge accounting partially for an aluminium hedge and for a foreign exchange hedge. At 31 December 2009, we recorded US\$1,528 million of gains related to derivative instruments. During the six months to 30 June 2010, we recorded a loss of US\$342 million in relation to fair value adjustments on derivative instruments.

### Income taxes

We recognise 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 realised. The valuation allowance made in 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 the section in this Listing Document headed "Financial information — Contingent Liabilities".

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 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 30 June 2010, US\$1,967 million (31 December 2009, US\$1,763 million), consists of provisions of US\$703 million (31 December 2009, US\$657 million) for labour, US\$646 million (31 December 2009, US\$582 million) for civil, US\$595 million (31 December 2009, US\$489 million) for tax and US\$23 million (31 December 2009, US\$35 million) for other claims. A provision for contingent liabilities related to civil claims brought by inhabitants of Port Colborne and pre-operating expenses related to our New Caledônia, Onça Puma and Salobo plants was made in the six months ended 30 June 2010. Vale Canada was ultimately ordered to pay CAD36 million in damages in respect of the civil claims brought by inhabitants of Port Colborne in July 2010. Vale Canada has filed a notice of appeal in respect of that judgment.

## Employee post-retirement benefits

We sponsor defined benefit pension plans covering some of our employees. 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 2009 consolidated financial statements included in Appendix I to this Listing Document 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).

# **Description of Selected Income Statement Line Items**

### Revenues and expenses

Revenues are recognised when title is transferred to the customer or services are rendered. Revenue from exported products is recognised when such products are loaded on board the ship.

Revenue from products sold in the domestic market is recognised when delivery is made to the customer. Revenue from logistic services is recognised when the service order has been fulfilled. Expenses and costs are recognised on the accrual basis.

## Income taxes

The deferred tax effects of tax loss carryforwards and temporary differences are recognised pursuant to accounting for income taxes. A variation allowance is made when we believe that it is more likely than not that tax assets will not be fully recovered in the future.

# **Results of Operations**

The following table sets out selected financial data which is extracted from our consolidated financial statements for our financial years ended 31 December 2007, 2008 and 2009, respectively, and the six months ended 30 June 2010, included in Appendix I to this Listing Document:

## Statement of income data

	For the ve	ar andad 21 I	Docombor	For the six months ended
	2007	ar ended 31   2008	2009	30 June 2010
			million)	2010
N. A. C.	22.242	•	•	46.262
Net operating revenues	32,242	37,426	23,311	16,262
Cost of products and services	(16,463)	(17,641)	(13,621)	(7,661)
Selling, general and administrative expenses	(1,245)	(1,748)	(1,130)	(636)
Research and development	(733)	(1,085)	(981)	(361)
Other expenses	(607)	(950) (1,254)	(1,522)	(912)
·				
Operating income	13,194	14,748	6,057	6,692
Non-operating (expenses) income:				
Financial (expenses) income	(1,291)	(1,975)	351	(1,204)
Exchange and monetary gains, net <sup>(1)</sup>	2,553	364	675	36
Gain on sale of investments <sup>(2)</sup>	<u>777</u>	80	40	
Subtotal	2,039	(1,531)	1,066	<u>(1,168</u> )
Income before discontinued operations, income taxes				
and equity results	15,233	13,217	7,123	5,524
Income taxes charge	(3,201)	(535)	(2,100)	(422)
Equity in results of affiliates and joint ventures and				
change in provision for gains on equity				
investments	595	794	433	379
Net income from continuing operations	12,627	13,476	5,456	5,481
Discontinued operations, net of tax				(151)
Net income	12,627	13,476	5,456	5,330
Net income attributable to non-controlling interests	802	258	107	21
Net income attributable to Company's stockholders	11,825	13,218	5,349	5,309
Total cash paid to shareholders (3)	1,875	2,850	2,724	1,250

<sup>(1)</sup> The aggregate foreign currency transaction gain or loss (both realised and unrealised) included in determining net income for the reporting period.

<sup>(2)</sup> The net realised gain or loss on investments sold during the period, which, for cash flow reporting, is a component of proceeds from investing activities.

<sup>(3)</sup> Consists of total cash paid to Shareholders during the period, whether classified as dividends or interest on shareholders' equity.

For the

# Basic and diluted earnings per share

	Fau Alaa	d. d 24 D		six months ended
		year ended 31 D		30 June
	2007	2008 <sup>(4)</sup>	2009	2010
		(US\$, excep	ot as noted)	
Earnings per share <sup>(1)</sup> :				
Basic				
Per common share	2.41	2.58	0.97	0.99
Per preferred share	2.41	2.58	0.97	0.99
Diluted	2	2.50	0.57	0.55
Per common share	2.42	2.61	1.00	1.00
Per preferred share	2.42	2.61	1.00	1.01
Weighted average number of shares				
outstanding (in thousands) <sup>(2)</sup> :				
Common shares	2,943,216	3,028,817	3,181,706	3,186,018
Preferred shares	1,889,171	1,946,454	2,030,700	2,033,272
Treasury common shares underlying	1,005,171	1,5 10, 15 1	2,030,700	2,033,272
convertible notes	34,510	56,582	74,998	18,416
	34,310	30,362	74,330	10,410
Treasury preferred shares underlying	10 470	20.205	77 500	47 205
convertible notes	<u> 18,478</u>	30,295	77,580	47,285
Total	4,885,375	5,062,148	5,364,984	5,284,991
Distributions to shareholders per share <sup>(3)</sup> :				
In US\$	0.39	0.56	0.53	
In R\$	0.74	1.09	1.01	
ш кү	0.74	1.09	1.01	

<sup>(1)</sup> Diluted earnings per share for 2007, 2008 and 2009 include Class A Preferred Shares and Common Shares underlying the mandatorily convertible notes issued in June 2007. Diluted earnings per share for 2009 also include Class A Preferred Shares and Common Shares underlying the mandatorily convertible notes issued in July 2009.

<sup>(2)</sup> Each common ADS represents one Common Share and each preferred ADS represents one Class A Preferred Share.

<sup>(3)</sup> Our distributions to Shareholders may be classified as either dividends or interest on shareholders' equity. Since 2005, part of each distribution has been classified as interest on shareholders' equity and part as dividends.

<sup>(4)</sup> In July 2008, we issued 80,079,223 common ADSs, 176,847,543 Common Shares, 63,506,751 preferred ADSs and 100,896,048 Class A Preferred Shares in a global equity offering. In August 2008, we issued an additional 24,660,419 Class A Preferred Shares. In October 2008, the Board of Directors approved a share buy-back programme, which was terminated on May 27, 2009. While the programme was in effect, our Company acquired 18,415,859 Common Shares and 47,284,800 Class A Preferred Shares, corresponding respectively to 1.5% and 2.4% of the outstanding shares of each class on the date the programme was launched.

	Д	t 31 Decemb	oer,	At 30 June	At 30 September
	2007	2008	2009	2010	2010
			(US\$ m	illion)	
Current assets	11,380	23,238	21,294	25,039	31,489
Property, plant and equipment, net	54,625	49,329	68,810	73,749	79,892
Investments in affiliated companies and joint ventures and other					
investments	2,922	2,408	4,585	4,444	4,911
Other assets	7,790	5,017	7,590	7,571	9,003
Total assets	<u>76,717</u>	<u>79,992</u>	102,279	110,803	<u>125,295</u>
Current liabilities	10,083	7,237	9,181	12,213	15,017
Long-term liabilities <sup>(1)</sup>	13,195	10,173	12,703	15,045	16,722
Long-term debt <sup>(2)</sup>	17,608	17,535	19,898	19,125	20,743
Total liabilities	40,886	34,945	41,782	46,383	52,482
Redeemable non-controlling					
interests <sup>(3)</sup>	375	599	731	724	666
Stockholders' equity:					
Capital stock	12,306	23,848	23,839	25,726	24,858
Additional paid-in capital	498	393	411	1,790	2,188
common ADSs	1,288	1,288	1,578	290	290
Mandatorily convertible notes —					
preferred ADSs	581	581	1,225	644	644
Reserves and retained earnings	18,603	<u>16,446</u>	29,882	31,761	41,341
Total Company shareholders'					
equity	33,276	42,556	56,935	60,211	69,321
Non-controlling interests	2,180	1,892	2,831	3,485	2,826
Total shareholders' equity	35,456	44,448	59,766	63,696	72,147
Total liabilities and shareholders'					
equity	76,717	79,992	102,279	110,803	125,295

<sup>(1)</sup> Excludes long-term debt.

<sup>(2)</sup> Excludes current portion of long-term debt.

<sup>(3)</sup> The aggregate amount to be paid by the entity upon redemption of the security that is classified as temporary equity. In January 2009, we adopted a newly issued accounting standard in US GAAP for non-controlling interests. This new accounting standard clarifies that a non-controlling interest in a subsidiary is an ownership interest in the consolidated entity that should be reported as equity in the consolidated financial statements and consolidated statements of changes in stockholders' equity. Non-controlling interests that could be redeemed upon the occurrence of certain events outside our Company's control have been classified as redeemable non-controlling interest using the mezzanine presentation on the balance sheet between liabilities and stockholders' equity.

The following table presents the breakdown of our total operating revenues attributable to the destination from which they originated:

	, ,	Y	ear ended 31 D	ecembei			Six mont ended 30 J	
	2007		2008		2009		2010	
	(US\$ million)	(%)	(US\$ million)	(%)	(US\$ million)	(%)	(US\$ million)	(%)
North America	4,922	14.9	4,236	11	1,742	7.3	706	4.2
USA	2,966	9.0	2,466	6.4	832	3.5	298	1.8
Canada	1,761	5.3	1,517	3.9	886	3.7	390	2.3
Others	195	0.6	253	0.7	24	0.1	18	0.1
South America	6,181	18.7	7,725	20.1	3,997	16.7	3,328	19.8
Brazil	5,288	16.0	6,675	17.3	3,655	15.3	3,014	18.0
Others	893	2.7	1,050	2.7	342	1.4	314	1.9
Asia	13,346	40.3	15,761	40.9	13,633	56.9	8,319	49.6
China	5,865	17.7	6,706	17.4	9,003	37.6	4,955	29.5
Japan	3,827	11.6	4,737	12.3	2,412	10.1	1,904	11.3
South Korea	1,473	4.4	1,474	3.8	883	3.7	548	3.3
Taiwan	1,665	5.0	954	2.5	681	2.8	447	2.7
Others	516	1.6	1,890	4.9	654	2.7	464	2.8
Europe	7,325	22.1	9,450	24.5	4,036	16.9	3,738	22.3
Germany	1,856	5.6	2,511	6.5	1,085	4.5	1,169	7.0
Belgium	683	2.1	910	2.4	336	1.4	100	0.6
France	722	2.2	815	2.1	336	1.4	174	1.0
UK	1,066	3.2	1,261	3.3	492	2.1	498	3.0
Italy	632	1.9	821	2.1	335	1.4	436	2.6
Others	2,366	7.1	3,132	8.1	1,452	6.1	1,362	8.1
Rest of the World	1,340	4.0	1,337	3.5	<u>531</u>	2.2	687	4.1
Total	<u>33,115</u>	100.0	38,509	100	23,939	100	<u>16,778</u>	100.0

# Results of Operations — Six Months ended 30 June 2010 Compared with Six Months ended 30 June 2009

#### Revenues

Our gross operating revenues were US\$16,778 million in the first half of 2010, 59.7% higher than in the first half of 2009, as a result of increases in both sale volume and sale prices, which reflect the recovery from the worldwide financial crisis that began in late 2008. The proportion of our total gross operating revenues attributable to sales of bulk materials increased to 73.6% in the first half of 2010 from 61.4% in the first half of 2009, while the proportion of our total operating revenues attributable to base metals decreased to 19.4% from 30.1% in the same period last year. In the first half of 2010, sales to Asia decreased to 49.6% of our total revenues from 60.5% in the first half of 2009, while sales to the Americas (excluding Brazil) declined to 6.1% from 9.7%, and sales to Europe increased to 22.3% from 14.1%. The following table presents our gross operating revenues by product and our net operating revenues for the periods indicated.

	Six months ended 30 June,			
	2009	2010	% Change	
	(US\$ million) (unaudited)			
Bulk Materials:				
Iron ore	5,551	9,182	65.4	
Iron ore pellets	452	2,393	429.4	
Manganese	58	147	153.4	
Ferroalloys	148	312	110.8	
Pig iron	11	9	(18.2)	
Coal	230	312	35.7	
Subtotal	6,450	12,355	91.6	
Base Metals:				
Nickel and other products <sup>(1)</sup>	1,972	1,621	(17.8)	
Copper concentrate <sup>(2)</sup>	277	387	39.7	
Aluminium products	910	1,254	37.8	
Subtotal	3,159	3,262	3.3	
Fertilizer Nutrients:				
Potash	186	120	(35.5)	
Phosphates	_	155	_	
Subtotal	186	275	47.8	
Logistics:				
Railroads	381	537	40.9	
Ports	99	181	82.8	
Ships		5		
Subtotal	480	723	50.6	
Other products and services	230	163	(29.1)	
Gross revenues	10,505	16,778	59.7	
Value added tax	(233)	(516)	121.5	
Net operating revenues	10,272	16,262	58.3	
itel operating ferendes	-0,2,2	.0,202	30.5	

<sup>(1)</sup> Includes nickel co-products and by-products (copper, precious metals, cobalt and others).

*Iron ore.* Gross revenues from sales of iron ore increased 65.4% in the first half of 2010 compared to the first half of 2009, primarily as a result of a 42.1% increase in the average sale price and a 16.4% increase in volume sold. The increase in the average sale price resulted from price

<sup>(2)</sup> Does not include copper produced as a nickel co-product.

increases under the new quarterly pricing system beginning in the second quarter of 2010. The increase in volume is a consequence of the worldwide economic recovery. Given strong demand pressure, the market for iron ore has been very tight, with rising spot prices and a decreasing stock-to-consumption ratio in China relative to last year. The price indices that affect our prices under the new quarterly pricing system were higher in the three month period (March/April/May 2010) that was being taken into account to price third quarter 2010 sales and declined in the following three month period (June/July/August 2010) that will be taken as a reference to price fourth quarter 2010 sales. For more information about this pricing system, see the section in this Listing Document headed "Risk factors".

Iron ore pellets. Gross revenues from sales of iron ore pellets increased 429.4%, driven by a 236.4% increase in volume sold due to increased utilisation of production capacity, and a 58.9% increase in the average sale price due to the new pricing regime described above in relation to iron ore, which also covers iron ore pellets.

Manganese ore. Gross revenues from sales of manganese ore increased 153.4%, driven by a 70.4% increase in the average sale price and a 49.6% increase in volume sold due to demand from the Chinese ferroalloy industry.

Ferroalloys. Gross revenues from sales of ferroalloys increased 110.8%, due primarily to a 62.9% increase in volume sold in connection with the recovery of the steel industry, a 29.0% increase in the average sale price and a favourable change in the mix of alloys sold.

*Coal.* Gross revenues from sales of coal increased 35.7%, mainly due to the consolidation of sales from Vale Colombia, which the Group acquired in the first quarter of 2009.

*Nickel and other products.* Gross revenues from this segment decreased 17.8%, mainly due to a decline in volume sold as a result of the labour strikes at our production plants in Sudbury and Voisey's Bay.

- Gross revenues from nickel sales decreased 3.2%, primarily due to a 45.7% decline in volume sold, which was partially offset by a 78.5% increase in the average sale price due to an increase in the LME price.
- Gross revenues from copper sales decreased 68.4%, primarily due to a 75.9% decline in volume sold, which was partially offset by a 31.5% increase in the average sale price.

*Potash.* Gross revenues from sales of potash decreased 35.5%, mainly due to a 34.2% decrease in the average sale price as a result of a decline in the international reference price.

*Phosphates.* Gross revenues from sales of phosphates are attributable to the consolidation of Vale Fosfatados S.A. (formerly known as Bunge Participações e Investimentos S.A.), which was acquired in May 2010.

Copper concentrate. Gross revenues from sales of copper concentrate increased 39.7%, reflecting a 57.2% increase in the average sale price as a result of structural limitations on the growth of the supply of concentrates. The increase was partially offset by an 11.0% decrease in volume sold.

Aluminium products. Gross revenues from sales of aluminium-related products increased 37.8%, primarily reflecting an increase in the average sale price as a result of an increase in the LME price.

Logistics services. Gross revenues from sales of logistics services increased 50.6% as a result of the factors listed below.

- Revenues from railroad transportation increased 40.9%, primarily reflecting the rise in transportation of agricultural products and steel industry inputs and products in the first half of 2010.
- Revenues from port operations increased 82.8% due to increased operational efficiencies.

Other products and services. Gross revenues from sales of other products and services decreased 29.1%, primarily due to the classification of kaolin as a discontinued operation in the first quarter of 2010.

# Operating costs and expenses

The following table summarises our operating costs and expenses for the periods indicated.

	Six m ended 3		
	2009	2010	% Change
	(US\$ n (unau	nillion) dited)	
Cost of ores and metals sold	4,400	5,565	26.5
Cost of aluminium products	981	1,052	7.2
Cost of logistic services	343	492	43.4
Cost of fertilizer products	64	213	232.8
Cost of other products and services	247	339	37.2
Cost of goods sold	6,035	7,661	26.9
Selling, general and administrative expenses	463	636	37.4
Research and development expenses	454	361	(20.5)
Other operating costs and expenses	659	912	38.4
Total operating costs and expenses	<u>7,611</u>	9,570	25.7

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

	Six m ended 3		
	2009	2010	% Change
		nillion)	70 Change
		dited)	
Outsourced services	943	1,171	24.2
Materials costs	1,220	1,304	6.9
Energy:			
Fuel	517	852	64.8
Electric energy	353	_514	45.6
Subtotal	870	1,366	57.0
Acquisition of products:			
Iron ore and iron ore pellets	48	307	539.6
Aluminium products	134	140	4.5
Nickel	162	160	(1.2)
Other	9	32	255.6
Subtotal	353	639	81.0
Personnel	892	873	(2.1)
Depreciation and depletion	1,094	1,268	15.9
Other costs of goods sold	663	1,040	56.9
Total	6,035	7,661	26.9

Our total cost of goods sold was US\$7,661 million in the first half of 2010, 26.9% higher than in the first half of 2009. Of the US\$1,626 million increase in cost of goods sold, US\$977 million was attributable to higher sale volume, and US\$925 million was attributable to the average appreciation of the Real against the U.S. Dollar. The increase in costs was partially offset by our efforts to reduce costs by optimising the flow of materials, optimising plant and labour utilisation, and cutting administrative costs, among other measures.

- Outsourced services costs (primarily for operational services such as waste removal, cargo
  freight and maintenance of equipment and facilities) increased 24.2%, driven primarily by
  higher volumes sold and the appreciation of the Real against the U.S. Dollar and effectively
  offset by the acceleration of maintenance in 2009.
- Materials costs increased 6.9%, driven primarily by higher volumes sold and the appreciation of the Real against the U.S. Dollar.
- Energy costs increased 57.0%, driven primarily by higher volumes sold, higher average prices and the appreciation of the Real against the U.S. Dollar.
- Costs for the acquisition of products from third parties increased 81.0%, driven primarily by the purchase of iron ore and iron ore pellets. In 2009, the Group did not purchase iron ore pellets from third parties, due to the lower level of demand during the financial crisis.
- Personnel costs decreased 2.1%, due primarily to the stoppage of our nickel plants and partially offset by a 7% wage increase for Brazilian employees that took effect in November 2009 and by the appreciation of the Real against the U.S. Dollar.
- Depreciation and depletion expense increased 15.9%, driven primarily by the general
  increase in volume sold and the appreciation of the Real against the U.S. Dollar. The
  increase was effectively offset by lower volume sold from the Northern System as a result of
  exceptional problems with discharge of product from the Ponta da Madeira maritime
  terminal due to a shipping accident. The temporary difficulties with transportation logistics
  have now been solved.
- Other costs of goods sold increased 56.9%, primarily reflecting higher expenditures for mining royalties, adjustment of inventories in the ferrous minerals business, the effects of purchase accounting adjustments of US\$24 million in connection with the acquisition of Vale Fosfatados S.A. (formerly known as Bunge Participações e Investimentos S.A.), and increased demurrage costs as a result of greater activity during the first half of 2010.

## Selling, general and administrative expenses

Selling, general and administrative expenses increased 37.4%, due primarily to increased expenses with respect to personnel, sales, services and advertising as a result of the resumption of normal economic activity after the costs containment required during the financial circumstances of the previous year and the effect of the appreciation in value of the Real, the currency in which many of those expenses are recorded, as against the U.S. Dollar in the latter period.

## Research and development expenses

Research and development expenses decreased 20.5% in the first half of 2010, primarily due to the conclusion of some projects.

# Other operating costs and expenses

Other operating costs and expenses increased by US\$253 million in the first half of 2010 compared to the same period in 2009, mainly due to a provision for contingent liabilities related to civil claims brought by inhabitants of Port Colborne and pre-operating expenses related to our New Caledônia, Onça Puma and Salobo plants.

# Operating income by segment

The following table shows our operating income by segment and as a percentage of revenues for the periods indicated.

	Six months ended 30 June,				
		2009		2010	
		Segment operat	ing income (loss)		
	(US\$ million) (unaudited)	% of net operating revenues	(US\$ million)	% of net operating revenues	
Bulk Materials:					
Iron ore	3,053	55.6	5,296	58.7	
Iron ore pellets	(38)	(9.0)	1,249	55.2	
Manganese ore	12	21.1	74	52.5	
Ferroalloys	(13)	(9.8)	112	40.0	
Pig iron	(2)	(18.2)	_	_	
Coal	(3)	(1.3)	<u>(97</u> )	(31.1)	
Subtotal	3,009	47.4	6,634	55.1	
Base Metals:					
Nickel and other products <sup>(1)</sup>	(241)	(12.2)	(162)	(9.9)	
Copper concentrate <sup>(2)</sup>	27	9.9	69	18.3	
Aluminium products	<u>(135</u> )	(15.1)	141	11.4	
Subtotal	(349)	(11.1)	48	1.5	
Fertilizer Nutrients:					
Potash	106	58.6	16	14.0	
Phosphates		_	(16)	(11.4)	
Subtotal	106	58.6		_	
Logistics:					
Railroads	17	5.3	49	10.9	
Ports	5	5.9	40	25.5	
Ships			(11)	(220.0)	
	22	5.4	<del></del>	12.7	
Other	(127)	(62.0)	(68)	(53.5)	
Total	2,661	25.9	6,692	41.2	

<sup>(1)</sup> Includes nickel co-products and by-products (copper, precious metals, cobalt and others).

Operating income as a percentage of net operating revenues increased from 25.9% in the first half of 2009 to 41.2% in the first half of 2010. In general, the segments benefited from higher prices and volume sold, as summarized in more detail below.

- The increase in operating margin for iron ore and iron ore pellets primarily reflects higher average sale prices and volume sold.
- The increase in operating margins for manganese and ferroalloys is attributable to higher prices.
- The decrease in operating margin for coal is attributable to higher expenses related to the operations of Vale Colombia and Vale Australia.
- The decrease in operating margin for potash is attributable to the reassessment of inventories and the purchase price allocation for Vale Fosfatados S.A. (formerly known as Bunge Participações e Investimentos S.A.) and Vale Fertilizantes (formerly known as Fertilizantes Fosfatados S.A. Fosfertil).

<sup>(2)</sup> Does not include copper produced as a nickel co-product.

- The increase in operating margin in the aluminium products segment resulted primarily from higher average sale prices.
- The increase in operating margin for railroads is due to the mix of products carried.
- The increase in operating margin for ports is due to increased operational efficiencies.
- The increase in operating margin for copper concentrate reflects higher prices.

# Non-operating income (expenses)

The following table details our non-operating income (expenses) for the periods indicated.

		hs ended une,
	2009	2010
		nillion) dited)
Financial income	218	117
Financial expenses	(580)	(979)
Gains (losses) on derivatives, net	891	(342)
Foreign exchange and indexation gains, net		36
Gain on sale of investments	<u> 157</u>	
Total	1,225	(1,168)

We had net non-operating expenses of US\$1,168 million in the first half of 2010, compared to net non-operating revenues of US\$1,225 million in the first half of 2009. This variation primarily reflects the following factors:

- Losses on derivatives of US\$342 million in the first half of 2010 compared to gains of US\$891 million in the first half of 2009. The net fair value of our currency and interest rate swaps, which mainly convert our Real-denominated debt into U.S. Dollars to protect our cash flow from exchange rate volatility, produced a positive effect of US\$967 million in the first half of 2009 due to the appreciation of the Real against the U.S. Dollar, and a loss of US\$263 million in the first six months of 2010 due to the depreciation of the Real against the U.S. Dollar.
- An increase in financial expenses of US\$399 million, principally due to the mark-to-market
  effects of our amounts due under shareholder debentures, IOF (financial operations tax),
  charges related to the conversion of our mandatorily convertible notes due June 2010 and
  higher financial interest due to a higher average level of debt.
- A decrease in financial income of US\$101 million, principally due to a lower average cash balance.
- Lower foreign exchange and indexation gains due to foreign exchange loss generated by the combination of lower cash and treasury positions in U.S. Dollars in the first half of 2010 and the depreciation of the Real against the U.S. Dollar during the first half of 2010.
- No gain on sale of investments in the first half of 2010, compared to a US\$157 million gain on the sale of all our common shares of Usiminas Siderúrgicas de Minas Gerais S.A. — Usiminas in the first half of 2009.

## **Income taxes**

In the first half of 2010, we recorded income tax expense of US\$422 million, compared to US\$1,930 million in the same period of 2009. The effective tax rate on our pretax income was 7.6%, lower than the statutory rate, mainly because of a retroactive tax benefit related to our Carajás iron ore operations, the tax benefit of shareholder distributions categorised as interest on stockholders'

equity, and a 3.5% depreciation of the Real against the U.S. Dollar during the first half of 2010. The effective tax rate on our pretax income was 49.7% in the first half of 2009, substantially higher than the statutory rate, mainly because of the effect caused by the 16.5% appreciation of the Real against the U.S. Dollar during the first half of 2009. Exchange variations directly impact the exchange gains or losses recognised on transactions between the parent company and certain subsidiaries with lower statutory tax rates. Although those gains and losses are eliminated from reported consolidated pretax amounts in the consolidation and currency re-measurement process, they are not eliminated for tax purposes since in Brazil there is no consolidated income tax regime.

# Affiliates and joint ventures

Our equity in the results of affiliates and joint ventures increased to US\$379 million in the first half of 2010 from US\$207 million in the same period of 2009. The increase is primarily attributable to our joint venture Samarco, which experienced higher sale volume and prices for iron ore pellets.

# Results of Operations — Financial Year ended 31 December 2009 Compared with Financial Year ended 31 December 2008

## Revenues

Our net operating revenues decreased 37.7%, to US\$23.311 billion, in 2009, as a result of a decline in both volume sold and sale prices. The following table summarises our gross revenues by product and our net operating revenues for the periods indicated.

	Year ended 31 December			
	2008	2009	% change	
	(US\$ n	nillion)		
Ferrous minerals:				
Iron ore	17,775	12,831	(27.8)	
Iron ore pellets	4,301	1,352	(68.6)	
Manganese	266	145	(45.5)	
Ferroalloys	1,211	372	(69.3)	
Pig iron	146	45	(69.2)	
Subtotal	23,699	14,745	(37.8)	
Non-ferrous minerals:	•	•	, ,	
Nickel and other products <sup>(1)</sup>	7,829	3,947	(49.6)	
Potash	295	413	40.0	
Kaolin	209	173	(17.2)	
Copper concentrate <sup>(2)</sup>	893	682	(23.6)	
Aluminium	3,042	2,050	(32.6)	
Subtotal	12,268	7,265	(40.8)	
Total minerals and metals	35,967	22,010	(38.8)	
Logistic services	1,607	1,104	(31.3)	
Other products and services <sup>(3)</sup>	935	825	(11.8)	
Gross revenues	38,509	23,939	(37.8)	
Value-added tax	(1,083)	(628)	42.0	
Net operating revenues	37,426	23,311	(37.7)	

#### Notes:

<sup>(1)</sup> Includes copper, precious metals, cobalt and other by-products produced by Vale Canada.

<sup>(2)</sup> Does not include copper produced by Vale Canada.

<sup>(3)</sup> Includes coal.

Iron ore. Gross revenues from iron ore decreased by 27.8% primarily as a result of a 13.2% decrease in volume sold and a 16.8% decrease in the average sale price. Although 2009 benchmark prices were lower than 2008 benchmark prices — by 28.2% for fines and 44.5% for lumps — the average sale price for iron ore in 2009 was only 16.8% lower than in 2008. This is primarily because (i) some of the 2008 benchmark prices did not take effect until the second quarter of 2008, (ii) the 2009 benchmark prices took effect in the second quarter of 2009 and (iii) we began selling on a cost and freight basis in early 2009 in accordance with a more flexible stance towards iron ore pricing.

Iron ore pellets. Gross revenues from iron ore pellets decreased by 68.6% due to a 43.9% reduction in volume sold as a result of weakened demand, and a 44.0% decrease in average sale prices. During an economic downturn, demand for iron ore pellets tends to be negatively affected earlier and more strongly than the demand for iron ore fines.

*Manganese ore.* Gross revenues from manganese ore decreased by 45.5% due primarily to lower prices. The effect of lower prices was partially offset by higher volume sold as a result of strong Chinese demand.

Ferroalloys. Gross revenues from ferroalloys decreased by 69.3% due to a 48.5% decline in average selling prices and a 36.1% decrease in volume sold. The decline in volume is primarily attributable to a decline in demand.

*Nickel and other products.* Gross revenues from this segment decreased by 49.6%, mainly due to the following factors:

- Gross revenues from nickel sales decreased 45.4%, to US\$3.260 billion in 2009 from US\$5.970 billion in 2008. Due to weaker demand, average nickel prices declined 32.6%. Volume sold declined by 18.8% in 2009, primarily due to lower demand and the shutdown of our Sudbury and Voisey's Bay operations as a result of labour strikes in the second half of 2009.
- Gross revenues from copper sales decreased by 60.5%, from US\$1.136 billion in 2008 to US\$449 million in 2009, primarily due to a 52.7% drop in volume sold due to the shutdowns described above.
- Gross revenues from sales of precious metals and other products decreased 61.4%, from US\$511 million in 2008 to US\$197 million in 2009, primarily due to a decline in volume sold.

*Potash.* Gross revenues from sales of potash increased by 40.0%. The increase was due to a 58.7% increase in volume sold as a result of the strong performance of the Brazilian agricultural sector, which was partially offset by an 11.8% decline in average selling prices compared to the prior year.

*Kaolin.* Gross revenues from sales of kaolin decreased by 17.2%, due principally to a 25.8% decrease in volume, which was partially offset by an 11.6% increase in the average sale price.

Copper concentrate. Gross revenues from sales of copper concentrate decreased by 23.6% due to a 5.3% decrease in volume sold and a 19.3% decrease in the average sale price.

*Aluminium.* Gross revenues from our aluminium business decreased by 32.6%. This decrease is attributable to the following factors:

- Gross revenues from sales of aluminium decreased 44.7%, from US\$1.545 billion in 2008 to US\$855 million in 2009, primarily due to a 40% decline in the average sale price.
- Gross revenues from sales of alumina decreased 19.2%, from US\$1.470 billion in 2008 to US\$1.188 billion in 2009 due to a 34.9% lower average sale price. The decline was partially offset by a 24.3% increase in volume sold.
- Gross revenues from sales of bauxite decreased 74.1%, from US\$27 million in 2008 to US\$7 million in 2009, due to a reduction in volume sold.

Logistics services. Gross revenues from logistics services decreased by 31.3%. The decrease reflects the following factors:

- Revenues from railroad transportation decreased by 35.7%, from US\$1.303 billion in 2008 to US\$838 million in 2009, primarily reflecting the drop in Brazilian exports in 2009, which caused a sharp decline in the volume of steel inputs and products transported.
- Revenues from port operations decreased by 13.2%, from US\$304 million in 2008 to US\$264 million in 2009, reflecting weaker demand.

Other products and services. Gross revenues from other products and services decreased from US\$935 million in 2008 to US\$825 million in 2009, primarily due to lower revenue from coal sales, which was partially offset by higher revenue from sales of electricity.

	31 December		
	2008	2009	% change
	(US\$ n	nillion)	
Cost of ores and metals	14,055	10,026	(28.7)
Cost of logistic services	930	779	(16.2)
Cost of aluminium products	2,267	2,087	(7.9)
Others	389	729	87.4
Cost of goods sold	17,641	13,621	(22.8)
Selling, general and administrative expenses	1,748	1,130	(35.4)
Research and development	1,085	981	(9.6)
Impairment of goodwill	950	_	(100.0)
Other costs and expenses	1,254	1,522	21.4
Total operating costs and expenses	22,678	17,254	(23.9)

# Cost of goods sold

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

	Year ended 31 December			
	2008	2009	% change	
	(US\$ n	nillion)		
Outsourced services	2,880	2,264	(21.4)	
Material costs	2,900	2,698	(7.0)	
Energy:				
Fuel	1,842	1,277	(30.7)	
Electric energy	1,078	844	(21.7)	
Subtotal	2,920	2,121	(27.4)	
Acquisition of iron ore and pellets	1,179	155	(86.9)	
Acquisition of the products:				
Nickel	687	271	(60.6)	
Aluminium	317	279	(12.0)	
Other	31	38	22.6	
Subtotal	1,035	588	(43.2)	
Personnel	2,139	1,939	(9.4)	
Depreciation and depletion	2,664	2,332	(12.5)	
Others	1,924	1,524	(20.8)	
Total	17,641	13,621	(22.8)	

Our total cost of goods sold decreased 22.8% from 2008 to 2009. The decline is attributable to the decline in volume sold, exchange rate variations and our efforts to reduce costs. Of the US\$4,020 million decline in cost of goods sold, lower volume sold and exchange rate variations were responsible for US\$2,738 million and US\$895 million, respectively. Further details are set forth below:

- Outsourced services. Outsourced services costs decreased by 21.4% in 2009 due to lower volume sold.
- Material costs. Material costs decreased by 7.0% in 2009, primarily reflecting lower volume sold, the effect of which was partially offset by increased maintenance expenses due to the acceleration of scheduled maintenance for some operations and the higher value of the Real against the U.S. Dollar.
- Energy costs. Energy costs decreased by 27.4% in 2009 driven primarily by lower volume sold, lower average prices and exchange rate changes.
- Personnel costs. Personnel costs decreased by 9.4%, mainly due to lower staffing levels and the effects of idle capacity, which were offset by the impact of wage increases pursuant to a two-year agreement with our Brazilian employees entered into in November 2009.
- Acquisition of products. Costs related to the acquisition of iron ore and iron ore pellets decreased by 86.9%, and costs related to the acquisition of other products declined by 43.2%. These declines were primarily driven by lower purchased volumes of iron ore, iron ore pellets and nickel products and lower average prices of purchased products.
- Other costs. The decrease of US\$400 million in other costs was mainly due to lower lease payments for the Tubarão pellet plants and lower demurrage charges, both due to lower volume sold.

## Selling, general and administrative expenses

Selling, general and administrative expenses decreased by 35.4%, or US\$618 million. The year-on-year comparison reflects an adjustment of US\$316 million related to copper sales recognised in 2008, when sharply declining copper prices in the fourth quarter resulted in an adjustment to sales based on provisional prices in earlier quarters.

# Research and development expenses

Research and development expenses decreased by 9.6%. The US\$104 million decrease primarily reflects lower research expenditures related to copper, nickel, coal and logistics and was partially offset by an increase in research expenditures related to gas and energy.

# Impairment of goodwill

No impairment was registered in 2009. In 2008, we recognised a US\$950 million impairment of the goodwill associated with our 2006 acquisition of Vale Canada.

# Other costs and expenses

Other costs and expenses increased by US\$268 million, primarily as a result of an idle capacity increase of US\$880 million. The impact on the comparison was partially offset by the effects in 2008 of one-off tax assessments on third-party railroad transportation services used in our iron ore operations in previous years (US\$204 million), a provision for loss on materials (US\$199 million) and a fair value assessment of nickel inventories (US\$77 million).

# Operating income by segment

The following table provides information about our operating income by segment and as a percentage of revenues for the years indicated.

	Year ended 31 December			
	2008			2009
	Segment ope	erating income (loss)	Segment ope	erating income (loss)
	(US\$ million)	(% to net operating revenues)	(US\$ million)	(% to net operating revenues)
Ferrous minerals:				
Iron ore	9,988	57.4	6,659	52.6
Iron ore pellets	1,606	39.1	19	1.5
Manganese ore	169	67.3	31	21.7
Ferroalloys	604	55.8	34	10.4
Pig iron	76	52.1	(18)	_
Non-ferrous minerals:				
Nickel and other products	1,131	14.4	(361)	_
Potash	140	50.2	180	45.5
Kaolin	(45)	_	(16)	_
Copper concentrate	111	12.7	129	19.5
Aluminium products	516	17.3	(191)	_
Logistics:				
Railroads	246	22.4	65	9.3
Ports	41	15.5	36	15.9
Ships	_	_	(7)	_
Others	<u> 165</u>	18.2	(503)	_
Total	14,748	39.4	6,057	26.0

Our operating income decreased as a percentage of net operating revenues, from 39.4% in 2008 to 26.0% in 2009, due to lower shipment volumes and prices. The effects on individual segments are summarised below:

- The decrease in operating margin for iron ore and iron ore pellets primarily reflects lower average selling prices and volume sold.
- The decrease in operating margins for manganese and ferroalloys is attributable to lower prices.
- The decrease in operating margin for potash is attributable to lower prices.
- The decrease in operating margin for nickel and other products primarily reflects (i) the decline in average selling prices and volume sold and (ii) the shutdown of some operations as a result of the strikes at some of our Canadian operations.
- The margin declines in the aluminium products segment resulted primarily from lower volume sold.
- The decrease in railroad margins declined due to lower volume of transported steel products.
- The increase in the copper concentrate margin reflects the effects of recognising price adjustments in 2008.

# Non-operating income (expenses)

The following table details our net non-operating income (expenses) for the periods indicated.

	Year ended 31 December	
	2008	2009
	(US\$ m	illion)
Financial income	602	381
Financial expenses	(1,765)	(1,558)
(Losses) gains on derivatives, net	(812)	1,528
Foreign exchange and monetary gains, net	364	675
Gain on sale of assets	80	40
Non-operating (expenses) income	<u>(1,531</u> )	1,066

We had net non-operating income of US\$1.066 billion in 2009, compared to net non-operating expenses of US\$1.531 billion in 2008. This change primarily reflects a US\$1,528 million gain on derivatives in 2009, compared to a US\$812 million loss in 2008, primarily due to swaps of Real-denominated debt into U.S. Dollars. These transactions generated a US\$1,600 million gain in 2009 compared to a US\$833 million loss in 2008. The change in net non-operating income was also affected by the following factors:

- A decrease in financial income, principally due to lower average interest rates on cash balances in 2009.
- A decrease in financial expenses, mainly due to lower floating interest rates.
- Higher foreign exchange gains due to the depreciation of the U.S. Dollar.
- A US\$40 million net gain on sales of assets in 2009 compared to a US\$80 million gain on sales of assets in 2008. The net gain in 2009 was primarily attributable to the sale of shares of Usiminas (US\$153 million) and the sale of certain assets to Suzano (US\$61 million), partially offset by losses recognised on Valesul Aluminio S.A. assets (US\$82 million) and UTE Barcarena (US\$70 million).

## Income taxes

For 2009, we recorded net income tax expense of US\$2.100 billion, compared to US\$535 million in 2008. 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; (iii) we benefit from tax incentives applicable to our earnings on production in certain regions of Brazil, and (iv) functional currency movements on some non-Brazilian subsidiaries are not taxable under Brazilian law. In addition, some of the foreign exchange variations that affect our operating results are not taxable. These variations produced a net exchange loss in 2009, after a net exchange gain in 2008, and contributed to the increase in net income tax expense in 2009.

## Affiliates and joint ventures

Our equity in the results of affiliates and joint ventures resulted in a gain of US\$433 million in 2009, compared to a gain of US\$794 million in 2008. The decrease was primarily due to lower prices and volume sold as a result of the global economic downturn.

Results of Operations — Financial Year ended 31 December 2008 compared with Financial Year ended 31 December 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 summarises our gross revenues by product and our net operating revenues for the periods indicated.

	Year ended 31 December		
	2007	2008	% change
	(US\$ m	nillion)	
Ferrous minerals:			
Iron ore	11,908	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 <sup>(1)</sup>	11,789	7,829	(33.6)
Potash	178	295	65.7
Kaolin	238	209	(12.2)
Copper concentrate <sup>(2)</sup>	802	893	11.3
Aluminium	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 <sup>(3)</sup>	346	935	170.2
Gross revenues	33,115	38,509	16.3
Value-added tax	(873)	(1,083)	24.1
Net operating revenues	32,242	<u>37,426</u>	16.1

#### Notes:

*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 guarter 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 realised 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.

<sup>(1)</sup> Includes copper, precious metals, cobalt and other by-products produced by Vale Canada.

<sup>(2)</sup> Does not include copper produced by Vale Canada.

<sup>(3)</sup> Includes coal.

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 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.

*Aluminium.* Gross revenues from our aluminium business increased by 11.8%. This increase is attributable to the following factors.

- Gross revenues from sales of aluminium 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
  aluminium market prices and sales prices, our average aluminium sales price in the fourth
  quarter of 2008 did not fully reflect the drop in aluminium 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 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 Logística Intermodal S.A. in 2007 as a result of which Log-In Logística Intermodal S.A. 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 31 December		
	2007	2008	% change
	(US\$ n	nillion)	
Cost of ores and metals	13,628	14,055	3.1
Cost of logistic services	853	930	9.0
Cost of aluminium 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	19,048	22,678	19.1

# Cost of goods sold

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

	Year ended 31 December			
	2007	2008	% change	
	(US\$ n	nillion)		
Outsourced services	2,628	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)	
Aluminium	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	<u>16,463</u>	<u>17,641</u>	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 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 pelletising 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.

- 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 pellet 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 pellet plants for a period from five to 30 years.

The increase in total cost of goods 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 recognised 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 Canada.

# 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 information technology infrastructure advertising and brand management. The adjustment for copper sales arose from the effects of sharply declining copper prices under the MAMA pricing system (the MAMA or month after the month of arrival pricing system is a payment condition attributed to the sale of copper concentrate where the billing adjustment is made when the cargo is received by the customer. In practice, it is the difference between the price on the departure date and on the delivery date). In the fourth quarter of 2008, copper prices declined 48.8% compared to the third quarter of 2008, causing final prices for copper sales to 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 recognised a US\$950 million impairment of the goodwill associated with our 2006 acquisition of Vale Canada, of which US\$1.336 billion remained at 31 December 2008. For a full description of the impairment test, see the notes of our 2008 consolidated financial statements included in Appendix I to this Listing Document.

# 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.

# 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 31 December				
	2007 Segment operating income (loss)		Segment ope	2008 erating income (loss)	
	(US\$ million)	(% to net operating revenues)	(US\$ million)	(% to net operating revenues)	
Ferrous minerals:					
Iron ore	6,325	54.4	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	14.4	
Potash	37	22.0	140	50.2	
Kaolin	(32)	_	(45)	_	
Copper concentrate	252	32.6	111	12.7	
Aluminium products	828	31.2	516	17.3	
Logistics services:					
Railroads	297	29.1	246	22.4	
Ports	22	10.0	41	15.5	
Ships	(12)	_		_	
Others	<u>(159</u> )	_	165	18.2	
Total	13,194	40.9	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, aluminium 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 aluminium 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 Mineração Rio do Norte S.A.

# Non-operating income (expenses)

The following table details our net non-operating income (expenses) for the periods indicated.

	Year e	
	2007	2008
	(US\$ m	nillion)
Financial income	295	602
Financial expenses	(2,517)	(1,765)
Gains (losses) on derivatives, net	931	(812)
Foreign exchange and monetary gains, net		364
Gain on sale of investments	777	80
Non-operating income (expenses)	2,039	<u>(1,531</u> )

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 Logística Intermodal S.A. (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 pre-tax income was 4.0% in 2008 and 21% in 2007. The accounting effects of foreign exchange variation, which are not taxable, also contributed to lower net income tax expense in 2008.

## 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. The notes to our 2008 consolidated financial statements included in Appendix I to this Listing Document summarise our equity in the results of affiliates and joint ventures.

# **Liquidity and Capital Resources**

## Overview

In the ordinary course of business, our principal uses of funds are capital expenditures, dividend payments and repayment of debt. We have historically met these funding requirements by using cash generated from operating activities and through short-term and long-term borrowings. For 2010, we have budgeted US\$12,894 million for capital expenditures and announced minimum dividend payments of US\$2,500 million plus an additional dividend of US\$500 million.

We 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.

## Sources of funds

Our principal sources of funds are operating cash flow and borrowings. Our operating activities generated positive cash flow of US\$5,082 million in the first half of 2010.

In March 2010, our Company issued €750 million notes due March 2018 with a coupon of 4.375% per annum, payable annually. These notes are listed on the Luxembourg Stock Exchange.

We completed two debt offerings and an offering of mandatorily convertible notes in 2009. In November 2009, our wholly-owned finance subsidiary Vale Overseas Limited issued US\$1,000 million of 30-year notes guaranteed by our Company. These notes bear interest at 6.875% per annum, payable semi-annually and will mature in November 2039. In September 2009, Vale Overseas Limited also issued US\$1,000 million of 10-year notes guaranteed by our Company. These notes bear interest at 5.625% per annum, payable semi-annually and will mature in September 2019. These notes issued by Vale Overseas Limited are listed on NYSE.

In July 2009, our wholly-owned finance subsidiary Vale Capital II issued US\$942 million of notes due June 2012 that are mandatorily convertible into ADSs. These notes bear interest at 6.75% per annum, and we will pay additional remuneration based on the net amount of cash distributions paid to ADS holders. These notes are listed on NYSE.

We have revolving credit lines available under which amounts can be drawn down and repaid at the option of the borrower. At 30 June 2010, the total amount available under revolving credit lines was US\$1,600 million, of which US\$850 million was granted to Vale International S.A. and the balance to Vale Canada. As of 30 June 2010, neither Vale International S.A. nor Vale Canada had drawn any amounts under these facilities, but US\$108 million of letters of credit were issued and remained outstanding pursuant to Vale Canada's facility.

In June 2010, we entered into a bilateral pre-export finance agreement in the amount of US\$500 million and a term of 10 years.

In May 2008, we entered into framework agreements with the Japan Bank for International Cooperation in the amount of US\$3,000 million and Nippon Export and Investment Insurance (NEXI) in the amount of US\$2,000 million for the financing of mining, logistics and power generation projects. In November 2009, we signed a US\$300 million export facility agreement through our subsidiary PT International Nickel Indonesia Tbk with Japanese financial institutions, using credit insurance provided by NEXI, to finance the construction of the Karebbe hydroelectric power plant on the Larona River, on the island of Sulawesi, Indonesia. As of 30 June 2010, PT International Nickel Indonesia Tbk had drawn US\$150 million under this facility.

In April 2008, we entered into a credit line of R\$7,300 million with BNDES to help finance our investment programme. As of 30 June 2010, we had drawn the then equivalent of US\$862 million under this facility.

#### Debt

We are currently rated BBB+ (Standard & Poor's), Baa2 (Moody's), BBB high (Dominion) and BBB+ (Fitch). Our credit ratings can affect the cost and availability of funds. Ratings are not a recommendation, as ratings do not comment as to market price or suitability for a particular investor. The ratings are based on current information furnished to the rating agencies by our Company and information obtained by the rating agencies from other sources. The ratings are only accurate as of the date thereof and may be changed, superseded or withdrawn as a result of changes in, or unavailability of, such information. Each rating should be evaluated independently of any other rating.

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 30 June 2010, we had US\$88 million of outstanding short-term debt and US\$25 million of loans from related parties.

In addition to the outstanding long-term debt mentioned below, at 30 June 2010 the Group had a total debt of US\$765 million included in liabilities associated with current assets held for sale deriving from the agreement with Norsk Hydro ASA (as to which see the section in this Listing Document headed "Business — Overview").

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\$5,633 million at 30 June 2010). This category includes export financing lines, import finance from export credit agencies, and loans from commercial banks and multilateral organisations. Most recently, in June 2010, we entered into a bilateral pre-export finance agreement in the amount of US\$500 million and a term of 10 years. 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\$6,000 million. The outstanding amount at 30 June 2010 was US\$3,900 million.

U.S. Dollar-denominated fixed rate notes (US\$8,496 million at 30 June 2010). We, through our finance subsidiary Vale Overseas Limited, have issued in public offerings several series of fixed-rate debt securities guaranteed by our Company. The amount of these securities outstanding at 30 June 2010 was US\$7,381 million. Our subsidiary Vale Canada has an outstanding balance for fixed rate debt in the amount of US\$1,115 million.

Euro-denominated fixed rate notes (US\$918 million at 30 June 2010). On 24 March 2010, our Company issued €750 million of fixed-rate notes in a global public offering. These notes are due 2018 and have a coupon of 4.375% per year, payable annually.

Real-denominated non-convertible debentures (US\$3,365 million at 30 June 2010). In November 2006, we issued non-convertible debentures in the amount of approximately US\$2,600 million, in two series, with four- and seven-year maturities. The first series, representing approximately US\$700 million at issuance, matures this year and bears interest at 101.75% of the accumulated variation of the Brazilian CDI (interbank certificate of deposit) interest rate. The second series, representing approximately US\$1,900 million at issuance, matures in 2013 and bears interest at the Brazilian CDI interest rate plus 0.25% per year. At 30 June 2010, the total outstanding amount of these two series was US\$3,053 million.

Perpetual notes (US\$78 million at 30 June 2010). We have issued perpetual notes that are exchangeable for 48 billion preferred shares of the Brazilian bauxite producer Mineração Rio do

Norte S.A. Interest is payable on the notes in an amount equal to dividends paid on the underlying preferred shares.

Other debt (US\$4,312 million at 30 June 2010). We have outstanding debt, principally owed to BNDES and Brazilian commercial banks denominated in *Reais* and other currencies. Part of the debt we owe to BNDES is constituted by two sets of debentures held by BNDESPAR. The first series was issued on 17 December 2007 with an aggregate nominal value of approximately R\$665 million and the second series issued on 15 October 2009 has an aggregate nominal value of approximately R\$385 million. The debentures in each series may be exchanged at the option of their holder in their entirety, or only in part, at any time from the date falling eleven years after the date of issue for common shares in FNS on the basis of a pre-determined formula for exchange.

## Indebtedness

As of 30 June 2010, the Group had outstanding long-term debt of US\$23,083 million, including accrued charges, the details of which are set forth in the table below:

	Parent Company primary obligation and Parent Company guaranteed (US\$ million)	Not Parent Company guaranteed (US\$ million)	Total (US\$ million)
Debt securities	12,502 <sup>(1)</sup>	1,100	13,602
Term loans	8,794 <sup>(2)</sup>	605	9,399
Other borrowing	0	82	82

#### Notes:

(1) Comprises US\$4,677 million by way of Parent Company primary obligation and US\$7,825 million by way of Parent Company guarantee only.

(2) Comprises US\$4,576 million by way of Parent Company primary obligation and US\$4,218 million by way of Parent Company guarantee only.

	Secured	Unsecured	Total
	(US\$ million)	(US\$ million)	(US\$ million)
Debt securities	0	13,602	13,602
Term loans	3	9,396	9,399
Other borrowing	0	82	82

As of 30 June 2010, US\$3 million of the Group's debt was secured by liens over some of the Group's assets.

As of 30 September 2010, which is the latest practicable date for the purposes of this indebtedness statement, the Group had outstanding long-term debt of US\$24,372 million, including accrued charges, the details of which are set forth in the table below:

	Parent Company primary obligation and Parent Company guaranteed (US\$ million)	Not Parent Company guaranteed (US\$ million)	Total (US\$ million)
Debt securities	14,742 <sup>(1)</sup>	1,100	15,842
Term loans	7,823 <sup>(2)</sup>	624	8,447
Other borrowing	0	82	82

#### Notes:

(1) Comprises US\$5,133 million by way of Parent Company primary obligation and US\$9,609 million by way of Parent Company guarantee only.

(2) Comprises US\$4,866 million by way of Parent Company primary obligation and US\$2,957 million by way of Parent Company guarantee only.

	Secured (US\$ million)	Unsecured (US\$ million)	
Debt securities	0	15,842	15,842
Term loans	3	8,444	8,447
Other borrowing	0	82	82

As of 30 September 2010, the latest practicable date for the purposes of the indebtedness statement, US\$3 million of the Group's debt was secured by liens over some of the Group's assets.

## Shareholders' debentures

At the time of the first stage of our privatisation 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-privatisation 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 privatisation. In accordance with the debentures deed, holders have the right to receive semi-annual payments 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 privatisation, 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.

Total payments made under the shareholder debentures amounted to US\$11 million in 2007, US\$11 million in 2008 and US\$7 million in 2009. In April 2010, we paid semi-annual remuneration of US\$5 million. See Note 20 to our 2009 consolidated financial statements included in Appendix I to this Listing Document for a description of the terms of the debentures.

# **Capital Expenditures and Commitments**

We have an extensive programme of investments in the organic growth of our businesses.

During 2009, we made capital expenditures and other investments of US\$9,013 million, of which US\$6,855 million was on organic growth, while US\$2,157 million was invested in maintaining existing operations. Research and development expenditures are treated as current expense for accounting purposes.

For 2010, we have budgeted US\$12,894 million for capital expenditures. This amount includes expenditures on project development as well as maintenance of existing operations, and research and development, which are headed as current expenses for accounting purposes. Our actual capital expenditures may differ from the budgeted amount for a variety of reasons, including changes in exchange rates. In the first half of 2010, we spent US\$4,533 million on capital expenditures, excluding acquisitions.

The allocation of total expenditures in 2009 and in the six months ended 30 June 2010 is set forth in the following table.

	2009 expenditures	Six months ended 30 June 2010	
	(US\$ million)	(US\$ million)	(% of total)
Organic growth	6,855	3,693	81.5
Project execution	5,845	3,234	71.4
Research and development	1,010	458	10.1
Investments to support existing operations	<u>2,158</u>	840	18.5
Total	<u>9,013</u>	<u>4,533</u>	100.0

The following table summarizes by major business area the breakdown of our capital expenditures in 2007, 2008 and 2009, and for the six months ended 30 June 2010.

	20	07	20	08	200	09	Six months ended 30 June 2010		
	(US\$ million)	(% of total)	(US\$ million)	(% of total)	(US\$ million)	(% of total)	(US\$ million)	(% of total)	
Ferrous minerals Non-ferrous	1,748	15.9	2,171	21.3	2,124	23.6	1,193	26.3	
minerals	3,988	36.2	4,614	45.3	3,144	34.9	1,453	32.1	
Logistics services	977	8.9	1,952	19.2	1,985	22.0	893	19.7	
Coal	169	1.5	392	3.8	564	6.3	384	8.5	
Power generation	165	1.5	406	4.0	688	7.6	295	6.5	
Steel	279	2.5	146	1.4	184	2.0	71	1.6	
Other	298	2.7	510	5.0	324	3.6	244	5.4	
Acquisitions	3,379	30.7		_=		_=		_=	
Total	11,004	100	10,191	100.0	9,013	100.0	4,533	100.0	

The following table sets forth total expenditures in 2009 for our main investment projects and expenditures budgeted for those projects in 2010, together with estimated total expenditures for each project.

Business area	Project	Actual <sup>(1)</sup> 2009		geted Total <sup>(2)</sup>
<u> </u>	<u>-110ject</u>		\$ millio	
Ferrous minerals and Logistics	Carajás — additional 20 Mtpy iron ore mine	45	90	575
refrous minerals and Logistics	Carajás — additional 30 Mtpy iron ore mine	384	480	2,478
	Carajás Serra Sul (mine S11D) iron ore mine	213	1,126	11,297
	Apolo iron ore mine	9	38	2,509
	Vargem Grande Itabiritos iron ore mine	_	78	975
	Conceição Itabiritos iron ore mine	7	184	1,174
	Tubarão VIII pellet plant	208	122	636
	Oman pellet plant and iron ore distribution centre	344	484	1,356
	Teluk Rubiah maritime terminal and distribution centre	4	98	900
Non-ferrous minerals	Onça Puma nickel mine	486	510	2,646
	Totten nickel mine	56	146	362
	Long-Harbour nickel processing facility	101	441	2,821
	Tres Valles copper mine	52	27	109
	Salobo copper mine	436	600	1,808
	Salobo copper mine expansion	2	66	1,025
	Konkola North copper mine	_	50	145
	Bayóvar phosphate mine	296	219	566
	Rio Colorado potash mine	_	304	4,118
Coal		302	595	1,322
Energy	Estreito hydroelectric power plant	284	186	703
	Karebbe hydroelectric power plant	53	126	410
	Biofuels	46	55	407

<sup>(1)</sup> All figures presented on a cash basis.

<sup>(2)</sup> Estimated total capital expenditure cost for each project.

On 28 October 2010 we announced that the Board of Directors had approved the investment budget for 2011, including capital expenditures of US\$24,000 million dedicated to sustaining existing operations, research and development and project execution.

# **Contingent Liabilities**

The total amount of any contingent liabilities of the Group as at 30 June 2010 was US\$1,967 million, as discussed in Note 21 to our financial statements for the period ended 30 June 2010 included in Appendix I to this Listing Document.

The total amount of any contingent liabilities of the Group as at 30 September 2010, the latest practicable date for the purposes of the indebtedness statement, was US\$2,028 million, as discussed in Note 17 to our financial statements for the period ended 30 September 2010 included in Appendix II to this Listing Document.

In connection with a tax-advantaged lease financing arrangement sponsored by the French Government, our Company provided certain guarantees on behalf of Vale Nouvelle — Calédonie S.A.S. (VNC) pursuant to which our Company guaranteed payments due from VNC of up to a maximum amount of US\$100 million (Maximum Amount) in connection with an indemnity. Our Company also provided an additional guarantee covering the payments due from VNC of (a) amounts exceeding the Maximum Amount in connection with the indemnity and (b) certain other amounts payable by VNC under a lease agreement covering certain assets.

Two bank guarantees totalling €43 million were established by our Company on behalf of VNC in favour of the South Province of New Caledonia in order to guarantee the performance of VNC with respect to certain environmental obligations in relation to the metallurgical plant and the Kwe West residue storage facility.

Sumic Nickel Netherlands B.V., a 21% stockholder of VNC, has a put option to sell our Company 25%, 50%, or 100% of the shares they own in VNC. The put option can be exercised if the defined cost of the nickel-cobalt development project exceeds a value agreed between the shareholders at project rates and an agreement cannot be reached on how to proceed with the project.

Our Company provided a guarantee covering certain termination payments due from VNC to the supplier under an electricity supply agreement (ESA) entered into in October 2004 for the VNC project. The amount of the termination payments guaranteed depends upon a number of factors, including whether any termination of the ESA is a result of a default by VNC and the date on which an early termination of the ESA were to occur. During the first quarter of 2010, the supply of electricity under the ESA to the project began, and the guaranteed amount now decreases over the life of the ESA from its maximum amount. As at 30 June 2010, the guaranteed amount was €131 million (US\$160 million).

As of 30 June 2010, there was an additional US\$108 million of letters of credit issued and outstanding and US\$42 million in additional bank guarantees. These are associated with environmental reclamation and other operating associated items such as insurance, electricity commitments and import and export duties.

## Disclaimer

Save as aforesaid or as otherwise disclosed herein and apart from intra-group liabilities, the Group did not have any debt securities issued and outstanding, or authorised or otherwise created but unissued, term loans, bank loans and overdrafts, borrowings or indebtedness in the nature of borrowing, finance lease or hire purchase commitments, liabilities under acceptance or acceptance credits, mortgages, charges, guarantees or other contingent liabilities outstanding as at the close of business on 30 September 2010, the latest practicable date for the purposes of the indebtedness statement.

# Working Capital

Taking into account the available credit facilities and cash flows from operations, the Directors confirm that the Group has sufficient working capital for 125% of the Group's present requirements, that is for at least the next 12 months from the date of this Listing Document.

# **Key Financial Ratios**

The following tables set out the Group's key financial ratios during the Track Record Period:

		For the year ended/As at 31 December			For the six months ended/As at 30 June
Financial ratios	Formulae	2007	2008	2009	2010
Liquidity ratios:					
Current ratio	current assets/current				
	liabilities	1.13	3.21	2.32	2.05
Quick ratio	(current assets - inventories)/current				
	liabilities	0.75	2.67	1.97	1.74
Profitability ratios:					
Return on equity ratio	net income/stockholders'				
	equity	0.36	0.31	0.09	0.09
Return on assets ratio	net income/total assets	0.15	0.17	0.05	0.05
Gearing ratios:					
Debt/EBITDA		1.21	0.96	2.49	2.75
EBITDA/Interest Exp		11.71	15.93	10.25	16.66

## Current ratio/Quick ratio

Position as at 31 December 2008 compared with the position as at 31 December 2007

The significant increase in the current and quick ratios between 31 December 2007 and 31 December 2008 was mainly due to the increase in our current assets in the intervening period. This reflected the increase in cash and cash equivalents and short-term investments during that period due primarily to the funds obtained through our public offering of securities in 2008.

Position as at 31 December 2009 compared with the position as at 31 December 2008

The reduction in current assets between 31 December 2008 and 31 December 2009 mainly reflected the increased volume of funds raised in 2008 through a public offering of securities (and the subsequent expenditure of those funds in 2009) and the increase in current liabilities reflected long-term loans being reclassified under current liabilities due to repayment in accordance with their terms falling due within the succeeding 12 months. The combined effect of reduced current assets and increased current liabilities depressed the liquidity ratios in this period.

Position as at 30 June 2010 compared with the position as at 31 December 2009

The decrease in the current and quick ratios between 31 December 2009 and 30 June 2010 was mainly due to a decrease in cash and cash equivalents and short term investments partially offset by an increase in net assets held for sale represented by our aluminium business.

## Return on equity ratio

This ratio is based on net income/stockholders' equity. The consolidated financial results of our Company in 2009 reflected the effects of the global recession and, as a consequence, net income decreased from US\$13,218 million in 2008 to US\$5,349 million in 2009 and the return on equity ratio decreased accordingly. In 2009, stockholders' equity increased due to the issue of mandatory

convertibles, which further depressed the return on equity ratio. The return on equity ratio remained unchanged between 31 December 2009 and 30 June 2010.

#### Return on assets ratio

This ratio is based on net income/total assets. The net income decrease in the year to 31 December 2009 when compared to the year to 31 December 2008 and the consequent depression of the return on assets ratio was due mainly to the factors explained in "Return on equity ratio" above. Total assets reflected the increase within non-current assets from US\$48,454 million as at 31 December 2008 to US\$67,637 million as at 31 December 2009 to US\$72,616 million as at 30 June 2010 constituted by the increase in fixed assets due mainly to the acquisition of companies. During 2009 we acquired Mineração Corumbá Reunidas S.A. and in the first six months of 2010 we acquired Vale Fosfatados S.A. and a majority of the equity capital of Vale Fertilizantes. The return on assets ratio remained unchanged between 31 December 2009 and 30 June 2010.

# Gearing ratios

On 31 December 2009, debt leverage, as measured by total debt/EBITDA, increased to 2.49x, compared to 0.96x and 1.21x as at 31 December 2008 and 31 December 2007, respectively. The higher leverage reflected the effects of the global recession on our earnings performance and the increase in total debt due to the issue of loan notes in aggregate nominal principal amount at issue of US\$1,000 million in 2009 and €750 million in the first six months of 2010.

# Risks affecting the Group's Financial Results

We have developed our risk management strategy with the objective of providing an integrated view of risks to which we are exposed. 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 the impact of interest rates, exchange rates, commodity prices and supplies and other costs of our business results (market risk), but also risks arising from third party obligations (credit risk) and risks inherent in our operational processes (operational risk).

Traditional metrics for measuring market risk such as VaR (Value at risk) are not sufficient to assess the different types of exposure of our Company, as in our case, the main goal is to avoid situations of financial distress such as a breach of covenants or, more directly, liquidity problems that make it difficult to honour future commitments. Our Company manages the probability of breaking of covenants of its debt, which could accelerate their payment, as well as the likelihood of using additional credit lines in extreme conditions.

In furtherance of the objective of our risk management strategy, the Board of Directors has established an enterprise-wide risk management policy and a risk management committee.

Our risk management policy requires that we regularly evaluate the risk to our cash flow, as well as mitigation strategies. The Board of Executive Officers is responsible for the evaluation and approval of long-term risk mitigation strategies recommended by the risk management committee. The committee is responsible for overseeing and reviewing our risk management principles and risk management instruments, in addition to reporting periodically to the Board of Executive Officers regarding major risks and exposures and their impact on our cash flow. As of the Latest Practicable Date, the members of the risk management committee were: Guilherme Perboyre Cavalcanti, Chief Financial and Investor Relations Officer; Jose Carlos Martins, Executive Officer responsible for Marketing, Sales & Strategy; Tito Botelho Martins Junior, Executive Officer responsible for Basic Metals Operations; Mauro Neves, Planning, Development & Continuous Improvement Director; and Pedro Zinner, Global Head of Treasury and Finance.

In addition to our risk management governance model, we also rely on our corporate structure with its well-defined roles and responsibilities. The recommendation and execution of derivative

transactions are implemented by different and independent areas. The strategy and risk management department is responsible for defining and proposing to the risk management committee risk mitigation strategies consistent with our corporate strategy. The finance department is responsible for the execution of risk mitigation strategies through the use of derivatives. The independence of these departments promotes an effective control over these operations.

## Market risk

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, measured against the initial goals. Fair value changes in the derivatives portfolio are monitored weekly. 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 rates, foreign exchange rates, product prices and input prices.

We recognise all derivatives on our balance sheet at fair value, and the gain or loss in fair value is recognised in our current earnings, except as described in the next paragraph. Fair value accounting 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.

During 2010, we implemented hedge accounting partially for aluminium and nickel derivatives and for a foreign exchange hedge. Hedge accounting modifies the usual accounting treatment of a hedging instrument by changing the timing of recognition of gains and losses on the hedging instrument to enable gains and losses on the hedging instrument to be recognised in the income statement in the same period as offsetting losses or gains on the hedged item. This avoids much of the volatility that would arise if the derivative gains and losses were recognised in the income statement, as otherwise required.

We have contracts subject to margin calls only for part of the nickel and copper trades executed by Vale Canada. The total cash amount as of 30 June 2010 was not material.

The asset (liability) balances at 30 June 2010; 31 December 2009; and 31 December 2008 and the movement in fair value of derivative financial instruments are shown in the following table:\*

	Interest rates/ (LIBOR)/ currencies	Aluminium products	Copper/ coal	Nickel	Platinum	Gold	Freight	Fuel/ natural gas	Total
				US\$ mil	llion				
Fair value at 1 January 2008	632	(98)	(188)	42	(24)	(36)	0	(6)	322
Financial settlement	(394)	120	173	38	27	41	0	0	5
Unrealised gains (losses) in the year	(686)	(18)	(29)	(46)	(6)	(30)	0	4	(811)
Effect of exchange rate changes	<u>(123</u> )	<u>(4</u> )	44	(2)	3	25	0	_0	<u>(57</u> )
Unrealised gain (losses) at									
31 December 2008	<u>(571</u> )	0	0	32	_0	0	0	<u>(2)</u>	<u>(541</u> )
Fair value at 1 January 2009	(571)	0	0	32	0	0	0	(2)	(541)
Financial settlement	(241)	5	0	139	0	0	(37)	(11)	(145)
Unrealised gains (losses) in the year	1,681	(90)	0	(188)	0	0	66	58	1,527
Effect of exchange rate changes	1	(2)	0	(11)	0	0	_0	_4	(8)
Unrealised gain (losses) 31 December									
2009	<u>870</u>	<u>(87</u> )	0	(28)	0	0	29	49	833
Fair Value at 1 January 2010	870	(87)	0	(28)	0	0	29	49	833
Financial settlement	(174)	42	0	51	0	0	(20)	(23)	(124)
Unrealised gain (losses) in the year	(172)	42	(3)	0	0	0	(19)	(14)	(166)
Effect of exchange rate changes	(26)	2	0	3	0	0	0	(2)	<u>(23</u> )
Unrealised gain (losses) at 30 June									
2010	<u>498</u>	<u>(1)</u>	<u>(3)</u>	<u>26</u>			<u>(10)</u>	<u>10</u>	<u>520</u>

<sup>\*</sup> The balances of aluminium products and US\$57 of swap derivatives included in "Interest rates/(LIBOR)/Currencies", belong to Albras which is currently classified as held for sale.

# Interest rate and foreign exchange rate risks

Our cash flows are exposed to the volatility of several different currencies against the U.S. Dollar. While most of our product prices, representing around 90% of total revenue, are denominated or indexed to the U.S. Dollar, most of our costs, disbursements and investments are denominated or indexed to currencies other than the U.S. Dollar, mainly *Reais* and Canadian Dollars.

In order to reduce potential cash flow volatility arising from this currency mismatch, we use foreign exchange derivative instruments. 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 organisation loans. The U.S. Dollar floating rate debt is mainly subject to changes in LIBOR (London Interbank Offer Rate in U.S. Dollars). In order to mitigate the impact of interest rate volatility on our cash flows, we take advantage of natural hedges resulting from the positive correlation between metal prices and U.S. Dollar floating interest rates. Where natural hedges are not present, we may opt to obtain 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 based on the CDI and the TJLP.

The following table sets forth our floating and fixed rate long-term debt, categorised by *Reais* and other currencies, and as a percentage of our total long-term debt portfolio at the dates indicated, except for accrued charges and translation adjustments, as reflected in our consolidated financial statements.

			At 31 De	cember			At 30	At 30 June	
	200	7	200	8	200	2009		0	
			(US\$ m	illion, exce					
Floating rate debt:									
Real-denominated	5,071	27.4%	4,374	24.5%	6,949	30.8%	7,361	32.3%	
Denominated in other									
currencies	6,272	<u>33.8</u> %	6,612	<u>37.0</u> %	6,764	<u>30.0</u> %	5,793	<u>25.4</u> %	
Subtotal	11,343	61.2%	10,987	61.5%	13,713	60.8%	13,154	57.7%	
Fixed rate debt:	-		-		-		-		
Real-denominated	1	0%	1	0%	0	0%	0	0%	
Denominated in other									
currencies	7,180	<u>38.8</u> %	6,868	<u>38.5</u> %	8,830	<u>39.2</u> %	9,649	<u>42.3</u> %	
Subtotal	18,525	100%	17,857	100%	22,544	100%	22,803	100%	
Accrued charges	331		311		287		280		
Total	18,856		18,168		22,831		23,083		

The following table provides information about our debt obligations. 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 the dates indicated. Actual cash flows of these debt obligations are denominated mainly in U.S. Dollars or *Reais*, as indicated.

	Weighted average interest rate <sup>(1)(2)</sup>	2010	2011	2012	2013	2014	To 2039	Total	Fair value cash flow at 31 December 2009 <sup>(3)</sup>	Fair value cash flow at 30 June 2010
	(%)	2010	2011	2012	2013		IS\$ million		2003	2010
	(70)					(0	101111111 € 61	')		
US\$-denominated										
Fixed rate:										
Bonds	6.81	3	6	402	124	0	7,961	8,495	8,871.9	9,208
Loans	7.18	2	8	0	0	0	36	45	39.3	45
Securitisation notes	0	0	0	0	0	0	0	0	164.9	0
Floating rate:										
Loans	1.77	118	340	108	87	68	365	1,085	2,591.5	1,419
Trade finance	1.25	1,250	2,025	375	400	0	500	4,550	4,190.1	4,875
Subtotal		1,372	2,378	885	610	68	8,862	14,175	15,857.8	15,547
Real-denominated										
Floating rate loans	8.91	863	<u>71</u>	160	2,400	780	2,774	7,049	6,724.0	7,174
Subtotal		863	71	160	2,400	780	2,774	7,049	6,724.0	7,174
Denominated in other currencies					ŕ		·	·	·	·
Fixed rate loan	7.38	3	2	2	1	1	183	191	144.2	191
Fixed rate Eurobonds	4.43	0	0	0	0	0	918	918	0	1,029
Floating rate loan	4.08	9	12	8	9	8	33	80	243.5	79
Subtotal		12	14	10	10	9	1,134	1,189	387.7	1,299
No maturity						_	390	390	372.8	390
Total		2,248	2,463	1,055	3,021	857	13,160	22,803	23,342.3	24,410

#### Notes:

- (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.
- (3) Includes only long-term debt obligations.

As of 30 June 2010, the total principal amount and interest of our *Real*-denominated debt converted through swaps into U.S. Dollars was US\$6.4 billion and the total principal amount and interest of our Euro-denominated debt converted through swaps into U.S. Dollars was US\$612 million, with an average cost in U.S. Dollars of 4.46% per year after swap transactions and with maturity until September 2029. Most of those contracts are subject to semi-annual interest payments.

Some of these swap transactions have shorter settlement dates than and similar notional amounts to the interest and principal payment dates when compared to the reference debt instrument, taking into account the liquidity restrictions of the market. At each settlement date the financial results of the swap transaction partially offset the impact of the foreign dollar exchange rate in our obligations, contributing to a stable flow of cash disbursements in U.S. Dollars for the interest and principal payments on our *Real*-denominated debt.

In the event of an 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.

# Protection programme for Real-denominated debt indexed to CDI

In order to reduce cash flow volatility, we entered into swap transactions to convert to U.S. Dollars the cash flows on debt instruments denominated in *Reais* linked to CDI. In those swaps, our Company pays either fixed rates or floating LIBOR rates in U.S. Dollars and receives payments linked to CDI. These instruments were used to convert cash flows from: debentures issued in 2006 with a nominal value of R\$5.5 billion (US\$2.5 billion at the disbursement date), credit export notes issued in 2008 with a nominal value of R\$2.0 billion (US\$1.1 billion at the disbursement date) and acquisition financing obtained in 2006 and 2007 with a nominal value of R\$1.0 billion (US\$464 million at the disbursement dates).

	N	otional				Fair value		
Flow	30 June 2010	31 December 2009	Index	Average rate	Final maturity	30 June 2010	31 December 2009	
	(R\$/U	SD million)				(US	\$ million)	
Swap CDI vs. fixed rate swap								
Receivable	R\$7,589	R\$7,574	CDI	101.02%	2015	5,265	4,630	
Payable	USD3,670	USD3,670	USD	5.60%	2013	(4,786)	(3,997)	
Net						479	633	
Swap CDI vs. floating rate swap								
Receivable	R\$ 792	R\$ 792	CDI	102.07%	2015	455	477	
Payable	USD 430	USD 430	Libor	1.31%	2013	(444)	(424)	
Net						11	<u>52</u>	

# Protection programme for Real-denominated debt indexed to TJLP

In order to reduce cash flow volatility, we entered into swap transactions to convert to U.S. Dollars the cash flows related to loans with BNDES indexed to TJLP. In these swaps, we pay either fixed or floating rates in U.S. Dollars and receive payments linked to TJLP. Due to market liquidity constraints in respect of TJLP derivatives, some derivative transactions were made through CDI for equivalence.

	N	otional				Fair value		
Flow	30 June 2010	31 December 2009	Index	Average rate	Final maturity	30 June 2010	31 December 2009	
<del></del>	(R\$/U	SD million)				(US	\$ million)	
Swap TJLP vs. fixed rate swap								
Receivable	R\$2,205	R\$2,031	TJLP	1.41%	2010	1,040	1,060	
Payable	USD1,135	USD1,048	USD	3.15%	2019	(1,087)	(982)	
Net						(47)	77	
Swap TJLP vs. floating rate swap								
Receivable	R\$ 710	R\$ 658	TJLP	0.92%	2010	326	354	
Payable	USD 382	USD 385	Libor	Libor - 1.14%	2019	(342)	(323)	
Net						(16)	31	

# Protection programme for Foreign Exchange for the first half of 2010

Between May and June, we entered into swap transactions to protect against market changes of the foreign exchange rate between U.S. Dollars and *Reais* in order to reduce cash flow volatility due to foreign exchange for our mandatory convertibles. In these swaps, we paid a fixed rate in U.S. Dollars and received a fixed rate in *Reais*. On the maturity date, 14 June 2010, we received R\$67 million.

In March 2010, we entered into a similar swap transactions in order to reduce cash flow volatility due to foreign exchange in relation to our Euro note issue. These short-term swaps were executed and settled in March 2010, when we received R\$3.6 million.

# Foreign exchange cash flow hedge — Company

In order to reduce cash flow volatility, we entered into swap transactions to mitigate the foreign exchange exposure that arises from the currency mismatch between our revenues denominated in U.S. Dollars and disbursements and investments denominated in *Reais*.

Notional						Fa	ir value
Flow	30 June 2010	31 December 2009	Index	Average rate	Final maturity	30 June 2010	31 December 2009
<del></del>	(R\$/U	SD million)				(US	\$ million)
Receivable	R\$3,981	R\$1,964	Fixed	7.95%	2011	2,263	1,117
Payable	USD2,180	USD1,110	USD	0.00%	2011	(2,168)	<u>(1,096</u> )
Net						95	21

# Foreign exchange cash flow hedge-Albras

In order to reduce cash flow volatility, we entered into swap transactions to mitigate the foreign exchange exposure that arises from the currency mismatch between revenues denominated in U.S. Dollars and disbursements and investments denominated in *Reais*.

Notional						Fa	ir value
Flow	30 June 2010	31 December 2009	Index	Average rate	Final maturity	30 June 2010	31 December 2009
<del></del>	(R\$/U	SD million)				(US	\$ million)
Receivable	R\$914	R\$711	Fixed	7.25%	2011	521	401
Payable	USD471	USD359	USD	0.00%	2011	(464)	(349)
Net						57	52

# Foreign exchange protection programme on cash flow

In order to reduce cash flow volatility, we entered into non-deliverable forward transactions to mitigate the foreign exchange exposure that arises from the currency mismatch between revenues denominated in U.S. Dollars and disbursements and investments denominated in *Reais*.

	N	otional				Fa	ir value		
Flow	30 June 2010	31 December 2009	Buy/Sell	Average rate	Final maturity	30 June 2010	31 December 2009		
	(USD million)			(BRL/USD)			(US\$ million)		
Forward	USD60	USD60	S	1.8425	2010	0.4	(0.1)		

# Protection programme for Euro-denominated floating rate debt

In order to reduce cash flow volatility, we entered into a swap transaction to convert cash flows from loans in Euros linked to EURIBOR to U.S. Dollars linked to LIBOR. This trade *was* used to convert the cash flow of a debt in Euros, with an outstanding notional amount of €3.6 million, issued in 2003. In this trade, we receive floating rates in Euros (EURIBOR) and pay floating rates in U.S. Dollars (LIBOR).

Notional						Fair value		
Flow	30 June 2010	31 December 2009	Index	Average rate	Final maturity	30 June 2010	31 December 2009	
	(€/U	SD million)				(US	\$ million)	
Receivable	€4	€5	EUR	Euribor+0.875%	2011	4.4	6.9	
Payable	USD4	USD5	USD	Libor+1.0425%	2011	<u>(4.1</u> )	<u>(5.2</u> )	
Net						0.3	1.7	

# Fair Value hedge programme for the Euro denominated fixed rate debt

In order to hedge the volatility of debt costs to U.S. Dollars, we entered into a swap transaction to convert the cash flows from loans in Euros linked to fixed rates to U.S. Dollars linked to fixed rates. We receive fixed rates in Euros and pay fixed rates in U.S. Dollars. This trade was used to convert part of the cash flow of a debt in Euros, with an outstanding notional amount of €750 million, issued in 2010 by our Company.

Notional						Fair value	
Flow	30 June 2010	31 December 2009	Index	Average rate	Final maturity	30 June 2010	31 December 2009
<del></del>	(€/US	D million)				(US	\$ million)
Receivable	€500	_	EUR	4.38%	2014	680	0
Payable	USD675	_	USD	4.71%	2014	<u>(758</u> )	<u>0</u>
Net						<u>(78)</u>	<u>0</u>

# Protection programme for US\$ floating rate debt

Our wholly-owned subsidiary Vale Canada entered into a swap to convert U.S. Dollar floating rate debt into U.S Dollar fixed rate debt in connection with debt issued in 2004 with a notional amount of US\$200 million. In this swap, Vale Canada pays fixed rates in U.S. Dollars and receives floating rates in LIBOR.

Notional						Fair value	
Flow	30 June 2010	31 December 2009	Index	Average rate	Final maturity	30 June 2010	31 December 2009
(USD million)						(US:	\$ million)
Receivable	USD125	USD200	USD	3M Libor	2011	126	149
Payable	_	_	USD	4.80%	(132)	<u>(157</u> )	_
Net						<u>(6)</u>	(8)

# Foreign exchange protection programme for fixed price coal sales

In order to reduce cash flow volatility associated with a fixed price coal contract, we entered into an Australian Dollar forward purchase contract to equalise production cost and revenue currencies exposure.

Notional							ir value
Flow	30 June 2010	31 December 2009	Buy/Sell	Average rate	Final maturity	30 June 2010	31 December 2009
	(AU	D million)	(AUD/USD)			US\$ million	
Forward	AUD13	AUD41	В	0.6610	2011	2	9

## 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 59.2% of our 2009 gross consolidated revenues;
- nickel, which represented 13.6% of our 2009 gross consolidated revenues;
- copper products, which represented 4.7% of our 2009 gross consolidated revenues;
- coal, which represented 2.1% of our 2009 gross consolidated revenues;
- PGMs and other precious metals, which represented 0.9% of our 2009 gross consolidated revenues; and
- other products.

Nickel, copper, PGMs and other precious metals are sold in an active global market and traded on commodity exchanges such as LME and NYMEX. The prices of those metals are subject to significant fluctuations and are affected by many factors, including macroeconomic conditions and real and expected policies, levels of supply and demand, availability and cost of substitutes, inventory levels, investments by commodity funds and other actions by participants in the commodities market.

# Aluminium strategic cash flow hedging programme

In order to reduce cash flow volatility in 2010, we entered into hedging transactions that effectively fix aluminium prices for part of our sales for this period.

	N	otional				Fair value	
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009
		(ton)		(USD/ton)		(US	\$ million)
Put	60,000	120,000	В	1,940	2010	5	9
Call	60,000	120,000	S	2,073	2010	<u>(4</u> )	<u>(36</u> )
Net						<u>1</u>	<u>(27)</u>
Forward	60,000	120,000	S	1,945	2010	<u>(2</u> )	<u>(37</u> )

# Nickel strategic cash flow protection programme

In order to reduce cash flow volatility in 2010, we entered into hedging transactions that effectively fix nickel prices for part of our sales for this period.

Notional						Fair value	
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009
		(ton)	(USD/ton)			(US\$ million)	
Forward	14,706	29,122	S	17,890	2010	<u>(27</u> )	<u>(21</u> )

# Nickel sales hedging programme

In order to reduce cash flow volatility in 2010 and 2011, we implemented hedging transactions. These transactions fixed the prices of part of the sales in the period.

Notional						Fa	ir value
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009
	(ton)		(USD/ton)			(US\$ million)	
Forward	19,500	_	S	21,869	2011	42	$\equiv$

## Nickel fixed price programme

In order to maintain exposure to nickel price fluctuations, we entered into derivatives to convert to floating prices all contracts with clients that required a fixed price. These trades aim to guarantee that the prices of these operations would be the same as the average prices negotiated on LME on the date the product is delivered to the client. It normally involves buying nickel forwards (over-the-counter) or futures (exchange negotiated). These operations are usually reverted before the maturity in order to match the settlement dates of the commercial contracts in which the prices are fixed. Whenever the nickel strategic cash flow protection programme or the nickel sales hedging programme is executed, the nickel fixed price programme is interrupted.

	N	otional			Fair value		
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009
	(ton)		(USD/ton)			(US\$ million)	
Nickel Futures	1,986	3,426	В	14,428	2012	<u>11</u>	12

# Coal sales protection programme

In order to reduce cash flow volatility for 2010, we entered into hedging transactions to fix the price of a portion of coal sales in the period.

	N	otional				Fa	ir value
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009
	(me	etric tons)		(USD/metric ton)		(US	\$ million)
Forward	210,000	_	В	82	2010	(2.2)	=

# 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 16.6% of our 2009 cost of goods sold;
- materials, which represented 19.8% of our 2009 cost of goods sold;
- energy, which represented 15.6% of our 2009 cost of goods sold; and
- acquisition of products, which represented 5.5% of our 2009 cost of goods sold.

We may hedge certain input price risks with swap contracts, long-term contracts, embedded derivatives or upstream integration.

# Energy

Energy costs are a significant component of our cost of production, representing 15.6% of our total cost of goods sold in 2009. To fulfil our energy needs, we depend on the following, all measured in tons of oil equivalent (TOE): oil by-products, which represented 39% of total energy needs in 2009; electricity (38%); coal (15%); and natural gas (6%).

Fuel costs represented 9.4% of our cost of goods sold in 2009. Increases in oil and gas prices adversely affect margins in our logistics services, mining, iron ore pellets and nickel businesses.

Electricity costs represented 6.2% of our total cost of goods sold in 2009.

As a large consumer of electricity, we are investing in power generation projects and gas exploration to protect 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.

We are developing hydroelectric and thermal power plants and engaging in natural gas exploration programmes in order to increase our energy production and reduce our future exposure to energy price and supply volatility.

## Acquisition of products

# Nickel purchase protection programme

In order to reduce cash flow volatility and eliminate the mismatch between the pricing of purchased nickel (concentrate, cathode, sinter and other) and the pricing of the final product sold to our customers, we entered into hedging transactions. The items purchased are raw materials utilised to produce refined nickel. The transactions are usually implemented by the sale of nickel forward or future contracts at LME or Over-the-Counter operations.

	N	lotional					Fair value		
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009		
	(ton)		(USD/ton)			(US\$ million)			
Nickel Futures	1,152	1,446	S	20,132	2010	0.6	<u>(2)</u>		

# Bunker oil purchase protection programme

In order to reduce the impact of bunker oil price fluctuation on our freight costs, we have entered into bunker oil derivatives, usually through forward purchases and swaps.

	N	otional				Fa	ir value
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009
	(me	tric tons)		(USD/metric ton)		(US\$ million)	
Forward	270,000	452,000	В	410	2011	8.9	45

# Maritime freight hiring protection programme

In order to reduce the impact of price fluctuation of maritime freight hired to support CIF and CFR sales and consequently reduce cash flow volatility, freight derivatives (FFA — forward freight agreements) were implemented. These transactions are usually executed through forward purchases.

	N		Fair value				
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009
		(days)	(USD/day)			(US\$ million)	
Forward	3,496	6,125	В	30,634	2010	(14)	29

# Copper scrap purchase protection programme

This programme was implemented in order to reduce cash flow volatility due to the quotation period mismatch between the pricing period of copper scrap purchase and the pricing period of final products sale to clients, as the copper scrap is combined with other raw materials or inputs to produce copper. This programme is usually implemented by the sale of futures on LME or by forwards through Over-the-Counter operations.

Notional							ir value
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009
	(lbs)		(USD/lbs)			(US\$ million)	
Forward	902,825	_	В	3	2010	0.3	$\equiv$

## Embedded derivatives

# Energy purchase

An energy purchase agreement between Albras and Eletronorte contains a clause that defines that a premium can be charged if aluminium prices trades in the range from US\$1,450 per ton to US\$2,773 per ton. This clause is considered as an embedded derivative.

				Fair value			
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009
	(ton)		(USD/ton)			(US\$ million)	
Call	200,228	200,228	В	2,773	2012	2	26
Call	200,228	200,228	S	1,450	2012	<u>(71</u> )	<u>(172</u> )
Total						<u>(69)</u>	<u>(146</u> )

Raw material and intermediate products purchase

Our wholly-owned subsidiary Vale Canada has embedded derivatives in purchase agreements for nickel concentrate and raw materials that are linked to nickel and copper future prices.

	Notional					Fair value	
Flow	30 June 2010	31 December 2009	Buy/Sell	Average strike	Final maturity	30 June 2010	31 December 2009
	(ton)			(USD/ton)		(US\$ million)	
Nickel Forwards	1,383	440	S	22,533	2010	4.4	0.2
Copper Forwards	5,603	3,463		7,079	2010	3.3	<u>(1.0</u> )
Total						7.8	<u>(0.8)</u>

#### Credit risk

We are exposed to credit risk arising from trade receivables, derivative transactions, payment guarantees and cash investments. The credit risk management process was implemented through a set of governance documents that establish the guidelines for granting counterparty limits and for measuring and controlling credit exposure. The credit risk governance provides a framework for assessing and managing counterparties' credit risk and for maintaining our risk at an acceptable level. The risk management committee analyses and recommends to the Board of Executive Officers 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.

Credit risk mitigation strategies are designed to hedge our portfolio to avoid concentration issues and, when necessary, to comply with the acceptable risk levels established by the Board of Executive Officers. Speculative credit derivative transactions are not permitted.

Customer credit limits are established through our risk management governance guidelines and monitored according to their credit exposure and their creditworthiness. Customer credit limits are updated at least once a year, or more often if there are significant changes in the marketplace.

## **Operational risk**

Operational risk management is the structured approach we take to manage uncertainty related to inadequate or failed internal processes, people and systems and to external events.

We mitigate operational risk with new controls and improvement of existing ones, with transfer of risk through insurance and establishment of financial provisions. As a result, our Company seeks to have a clear view of its major risks, the best cost-benefit mitigation plans it must invest in, and the controls in place to monitor the impact of operational risk closely and to efficiently allocate capital to reduce it.

## **Dividends and Dividend Policy**

Under our dividend policy, the Board of Executive Officers shall announce, no later than 31 January in each year, a proposal to be submitted to the Board of Directors regarding the minimum dividend, expressed in U.S. Dollars, that will be declared according to our Company's expected performance in the year of distribution. The proposal will comprise payment in two semi-annual instalments, in the form of dividends and/or interest on shareholders' equity, to be paid in April and October, respectively of the year of distribution. If approved by the Board of Directors, dividends are converted from U.S. Dollars into and paid in *Reais* at the Brazilian *Real/*U.S. Dollar exchange rate (*Ptax* — *option 5*) announced by the Central Bank of Brazil on the last business day in Brazil before the Board meeting that will decide upon the declaration and payment of dividends. The Board of Executive Officers can also propose to the Board of Directors, depending on our cash flow performance, an additional payment to Shareholders of an amount over and above the minimum dividend initially established. If approved by the Board of Directors, this extra instalment will be paid together with either of the other two instalments previously declared.

For 2010, the Board of Executive Officers has proposed a minimum dividend of US\$2,500 million. Assuming the total amount of dividend is sufficient to comprise an aggregate amount, equivalent to the amount of the preferential dividend payable on the Preferred Shares paid in respect of all of the Shares, we pay the same amount per share on both Common Shares and Preferred Shares in accordance with the By-laws. The first instalment of this dividend of US\$1,250 million was paid on 30 April 2010.

On 23 September 2010, we announced that the Board of Executive Officers had approved and would submit to the Board of Directors for approval:

- payment of the second instalment of this dividend of US\$1,250 million;
- payment of an additional dividend of US\$500 million; and
- payment of an extraordinary dividend of US\$1,000 million.

The payment of the second instalment and the additional dividend was made on 29 October 2010.

The proposal for the payment of an extraordinary dividend of US\$1,000 million will be evaluated by the Board of Directors in the meeting scheduled for 14 January 2011 and, if approved, payment will be made on 31 January 2011.

Under Brazilian law and the By-laws, we are required to distribute to Shareholders an annual amount equal to not less than 25% of the distributable amount referred to as the minimum dividend, unless the Board of Directors advises Shareholders at our Shareholders' meeting that payment of that amount is inadvisable in light of our financial condition. Under Brazilian law, we are required to hold an annual Shareholders' meeting by April 30 of each year at which an annual dividend can be declared. Additionally, the Board of Directors might declare interim dividends.

For a discussion of dividend distribution provisions under Brazilian corporate law and the Bylaws, please see Appendix V to this Listing Document.

For further information on the logistics of distributions for HDR Holders, please see the section in this Listing Document headed "Listings, terms of Depositary Receipts and Depositary Agreements, registration, dealings and settlement.".

## **Distributable Reserves**

As at 30 June 2010, our Company had US\$23,880 million in reserves available for distribution to Shareholders

## No Material Adverse Change

The Directors confirm that there has been no material adverse change in the Group's financial or trading position or prospects since 30 June 2010, being the date of the Group's latest audited financial statements included in Appendix I to this Listing Document.

# **Cash Operating Costs**

Our Company has obtained a waiver from the inclusion of an estimate of the operating cash cost per appropriate unit for its minerals produced for the purposes of Listing Rule 18.06. For further details, please see the section in this Listing Document headed "Waivers".

# **Subsequent Events**

On 8 September 2010 we announced the pricing of an offering by our wholly-owned finance subsidiary, Vale Overseas Limited, of:

• US\$1,000 million, 4.625% Guaranteed Notes 2020, bearing a coupon of 4.625% per annum, payable semi-annually and maturing in September 2020; and

 US\$750 million, 6.875% Guaranteed Notes 2039, to be consolidated with and forming a single series with Vale Overseas Limited's US\$1,000 million 6.875% Guaranteed Notes due 2039 issued on 10 November 2009, bearing a coupon of 6.875% per annum, payable semiannually and maturing in November 2039.

On 10 September 2010 we announced the entry into agreements with The Export-Import Bank of China and the Bank of China Limited for the financing to build 12 very large ore carriers. These two institutions will provide a credit line of up to US\$1,229 million, which corresponds to 80% of the amount required to fund the construction of the vessels. The credit line has a thirteen year total term to be repaid, and the funds will be disbursed during the next three years according to the construction schedule.

On 29 September 2010 we announced that we had concluded the acquisition under our contract with The Mosaic Company (Mosaic) of Mosaic's direct and indirect stakes in Vale Fertilizantes, corresponding to 27.27% of the common shares and 16.65% of the preferred shares and to 20.27% of the equity capital of Vale Fertilizantes, for US\$1,029,811,129.77, at the same price per share of our other acquisitions of equity interests in Vale Fertilizantes.

On 4 October 2010 we entered into an agreement with Export Development Canada (EDC) for the financing of our capital expenditure programme. Pursuant to the agreement, EDC will provide a facility in the amount of up to US\$1,000 million. US\$500 million will be available for investments in Canada and the remaining US\$500 million will be available in relation to existing and future purchase of goods and services in Canada.