

Vale S.A.  
Form 6-K  
February 16, 2012  
[Table of Contents](#)

**United States**  
**Securities and Exchange Commission**

Washington, D.C. 20549

**FORM 6-K**

**Report of Foreign Private Issuer**

**Pursuant to Rule 13a-16 or 15d-16**

**of the**

**Securities Exchange Act of 1934**

**For the month of**

**February 2012**

**Vale S.A.**

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

(Address of principal executive office)

Edgar Filing: Vale S.A. - Form 6-K

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.)

(Check One) Form 20-F  Form 40-F

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1))

(Check One) Yes  No

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7))

(Check One) Yes  No

(Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.)

(Check One) Yes  No

(If  Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b). 82- .)

---

Table of Contents

Table of Contents:

Press Release  
Signature Page

Table of Contents

*US GAAP*

**BM&F BOVESPA: VALE3, VALE5**

**NYSE: VALE, VALE.P**

**HKEx: 6210, 6230**

**EURONEXT PARIS: VALE3, VALE5**

**LATIBEX: XVALO, XVALP**

**[www.vale.com](http://www.vale.com)**

**[rio@vale.com](mailto:rio@vale.com)**

**Department of  
Investor Relations**

Roberto Castello Branco

Viktor Moszkowicz

Carla Albano Miller

Andrea Gutman

Christian Perlingiere

Fernando Frey

Marcio Loures Penna

Samantha Pons

Thomaz Freire

Tel: (5521) 3814-4540

4Q11

## ANOTHER YEAR OF HIGH PERFORMANCE

### Performance of Vale in 2011

Rio de Janeiro, February 15, 2012 Vale S.A. (Vale) reports a strong performance in 2011, which is reflected in all-time high figures for operating revenues (US\$ 60.4 billion), operating income (US\$ 30.1 billion), operating margin (48.5%), cash generation (US\$ 35.3 billion) and net earnings (US\$ 22.9 billion). Shipments of iron ore and pellets peaked, at almost 300 Mt, while nickel and copper sales had their best year since 2008.

Ricardo Flores, Chairman of the Board of Directors, said: In 2011, the return of cash to shareholders reached US\$ 12 billion, a record mark. This makes clear that alongside its excellent performance Vale has a significant potential. I am sure that the company will continue to be strongly committed with long-term value creation and sustainable development .

Murilo Ferreira, Chief Executive Officer, commented: Our financial performance was outstanding, better than ever before. We broke several records, despite a challenging economic scenario. The disciplined execution of our strategy and the high operating performance were instrumental for allowing us to benefit from a strong global demand for our products .

Vale is strongly committed to create shareholder value, with a strong focus on the efficiency of capital management. In order to strengthen discipline in capital allocation, we have implemented some initiatives to minimize risks of delays and cost overruns in project execution and have taken a more proactive stance towards returning excess cash to shareholders.

Our Board of Directors approved a reorganization of the Executive Board with the purpose of stimulating better interaction between corporate activities and the business units and stronger team work. A division in charge of project implementation, headed by an Executive Director, was created with the focus on improving the quality of project execution.

Five new projects came on stream in 2011 Onça Puma, Oman, Moatize, Estreito and Karebbe - which are still ramping up, with their growth and value generation potential to be materialized in 2012 and 2013. The growth and value creation dynamics will be supported in the following years by the delivery of world-class iron ore, pellets, coal, copper, nickel and potash projects currently under construction.

The operation permit for the N5 South pit, in the Northern Range of Carajás, was the first license for mining operation in Carajás since 2002. It allows the exploitation of a rich iron ore deposit with high Fe content, contributing to sustain the high quality of our production.



Table of Contents

To exploit synergies and to allow for the full exposure of Vale shareholders to the value creation potential of the fertilizers business, we delisted our subsidiary Vale Fertilizantes, following the buy-out transaction of its minority shareholders. Seeking to exploit opportunities for synergies and rationalization of the asset portfolio is one of our permanent goals.

The dividend yield of our shares was the highest among our peers and one of the highest among large global companies.

Vale had its credit risk upgraded by Standard & Poor's (S&P) to A- from BBB+. Pursuant to the S&P credit risk rating scale, an A rating indicates a strong capacity to meet financial commitments. The upgrade reflects our powerful cash flow, strong balance sheet and the permanent focus on minimizing the cost of capital.

In line with our focus on people and the paramount importance of human life, we are enhancing work safety standards, regardless of the fact that Vale already shows some of the best safety indicators in the mining industry. Expenditures on corporate social responsibility were US\$ 1.5 billion, with US\$ 1.0 billion on environmental protection and US\$ 457 million for social programs.

Results in 4Q11 were very robust, but below 3Q11, as a consequence of lower prices caused by the European recession and the negative expectations produced by the Euro area debt crisis.

The main highlights of Vale's performance were:

- Record operating revenues of US\$ 60.389 billion in 2011, 29.9% above last year's mark of US\$ 46.481 billion. In 4Q11, operating revenues were US\$ 14.755 billion.
- Record operating income from existing operations as measured by adjusted EBIT (earnings before interest and taxes) (a) - excluding non-recurring gains - of US\$ 28.599 billion(1). In 4Q11, operating income was US\$ 6.023 billion.
- Record operational margin from existing operations, as measured by adjusted EBIT margin, of 48.5% in 2011. In 4Q11, operational margin was 41.7%.
- Record net earnings of US\$ 22.885 billion in 2011, equal to US\$ 4.36 per share on a fully diluted basis. Earnings were US\$ 4.672 billion in 4Q11, and earnings per share US\$ 0.90 on a fully diluted basis.

## Edgar Filing: Vale S.A. - Form 6-K

- All-time high cash generation from existing operations as measured by adjusted EBITDA(b) (earnings before interest, taxes, depreciation and amortization) - excluding non-recurring gains - of US\$ 33.759 billion<sup>1</sup>. In 4Q11, adjusted EBITDA was US\$ 7.396 billion.
- Record sales of iron ore and pellets, at 299.1 Mt, showing a 1.6% increase over 2010.
- Record capital expenditures, excluding acquisitions, of US\$ 18.0 billion in 2011, of which US\$ 13.4 billion spent on project execution and research and development (R&D).
- An all-time high US\$ 12.0 billion return of capital to shareholders, comprising a dividend distribution of US\$ 9.0 billion, equal to US\$ 1.7354

---

(1) If including the non-recurring gain of US\$ 1.513 billion in 1Q11 from the sale of aluminum assets, in 2011 adjusted EBIT was US\$ 30.112 billion and adjusted EBITDA was US\$ 35.272 billion.



Table of Contents

per common or preferred share, and the US\$ 3.0 billion share buy-back program fully executed. For 2012, a minimum dividend of US\$ 6 billion.

- A strong balance sheet with low debt leverage, measured by total debt/LTM adjusted EBITDA, equal to 0.66x, and the maintenance of a long average debt maturity, of 9.8 years.

**Table 1 - SELECTED FINANCIAL INDICATORS**

US\$ million	2007	2008	2009	2010	2011	CAGR 07-11
Operating revenues	33,115	38,509	23,939	46,481	60,389	16.2%
Adjusted EBIT	13,194	15,698	6,057	21,695	28,599(1)	21.3%
Adjusted EBIT margin (%)	40.9	41.9	26.0	47.9	48.5(1)	
Adjusted EBITDA	15,774	19,018	9,165	26,116	33,759(1)	21.0%
Net earnings	11,825	13,218	5,349	17,264	22,885	17.9%
Earnings per share fully diluted basis(US\$ / share)	2.42	2.61	1.00	3.25	4.36	15.9%
Total debt/ adjusted EBITDA (x)	1.1	1.0	2.5	1.0	0.7	
ROIC (%)	25.2	33.8	11.6	30.8	36.1	
Capex (excluding acquisitions)	7,625	10,191	9,013	12,705	17,994	23.9%

(1) Excluding the non-recurring gain of US\$ 1.513 billion from the sale of aluminum assets in 1Q11.

US\$ million	4Q10	3Q11	4Q11
Operating revenues	15,207	16,741	14,755
Adjusted EBIT	7,167	8,373	6,023
Adjusted EBIT margin (%)	48.0	51.2	41.7
Adjusted EBITDA	8,869	9,631	7,396
Net earnings	5,917	4,935	4,672
Earnings per share fully diluted basis(US\$ / share)	1.12	0.94	0.90
Total debt/ adjusted EBITDA (x)	1.0	0.6	0.7
ROIC (1) (%)	30.8	36.9	36.1
Capex (excluding acquisitions)	5,091	4,529	6,686

(1) ROIC LTM = return on invested capital for last twelve-month period.

Except where otherwise indicated the operational and financial information in this release is based on the consolidated figures in accordance with US GAAP and, with the exception of information on investments and behavior of markets, quarterly financial statements are reviewed by the company's independent auditors. The main subsidiaries that are consolidated are the following: Compañía Minera Misky Mayo S.A.C., Ferrovia Centro-Atlântica (FCA), Ferrovia Norte Sul S.A., PT Vale Indonesia Tbk (formerly International Nickel Indonesia Tbk), Vale Australia Pty Ltd., Vale Canada Limited (formerly Vale Inco Limited), Vale Colômbia Ltd., Mineração Corumbaense Reunida S.A., Vale Fertilizantes S.A., Vale International, Vale Manganês S.A., Vale Manganèse France, Vale Manganèse Norway S.A. and Vale Nouvelle Calédonie SAS.



Table of Contents**INDEX**

<b>ANOTHER YEAR OF HIGH PERFORMANCE</b>	<b>1</b>
Table 1 - SELECTED FINANCIAL INDICATORS	3
<b>BUSINESS OUTLOOK</b>	<b>5</b>
<b>REVENUES</b>	<b>8</b>
Table 2 - OPERATING REVENUE BREAKDOWN	9
Table 3 - OPERATING REVENUE BY DESTINATION	10
<b>COSTS</b>	<b>10</b>
Table 4 - COGS BREAKDOWN	12
<b>OPERATING INCOME</b>	<b>12</b>
<b>NET EARNINGS</b>	<b>13</b>
<b>CASH GENERATION</b>	<b>14</b>
Table 5 - QUARTERLY ADJUSTED EBITDA	14
Table 6 - ADJUSTED EBITDA BY BUSINESS AREA	14
<b>INVESTMENTS</b>	<b>14</b>
Table 7 - TOTAL INVESTMENT BY CATEGORY	15
Table 8 - TOTAL INVESTMENT BY BUSINESS AREA	15
<b>DEBT INDICATORS</b>	<b>19</b>
Table 9 - DEBT INDICATORS	20
<b>PERFORMANCE OF THE BUSINESS SEGMENTS</b>	<b>20</b>
Table 10 - FERROUS MINERALS	21
Table 11 - COAL	23
Table 12 - BULK MATERIALS	23
Table 13 - BASE METALS	24
Table 14 - FERTILIZERS	26
Table 15 - LOGISTICS SERVICES	27
<b>FINANCIAL INDICATORS OF NON-CONSOLIDATED COMPANIES</b>	<b>27</b>
<b>CONFERENCE CALL AND WEBCAST</b>	<b>27</b>
<b>BOX - IFRS RECONCILIATION WITH USGAAP</b>	<b>28</b>
<b>ANNEX 1 - FINANCIAL STATEMENTS</b>	<b>29</b>
Table 16 - INCOME STATEMENTS	29
Table 17 - FINANCIAL RESULT	29
Table 18 - EQUITY INCOME BY BUSINESS SEGMENT	29
Table 19 - BALANCE SHEET	30
Table 20 - CASH FLOW	31
<b>ANNEX 2 - VOLUMES SOLD, PRICES AND MARGINS</b>	<b>33</b>
Table 21 - VOLUMES SOLD: MINERALS AND METALS	33
Table 22 - AVERAGE SALE PRICE	33
Table 23 - OPERATING MARGINS BY BUSINESS SEGMENT	34
<b>ANNEX 3 - RECONCILIATION OF US GAAP and NON-GAAP INFORMATION</b>	<b>35</b>

Table of Contents

• **BUSINESS OUTLOOK**

After the strong recovery from the Great Recession of 2008/2009, global economic activity decelerated in 2011, expanding at below-trend pace. Various factors influenced the slower global growth, which contributed to heighten the volatility of financial asset and commodity prices and to create negative expectations about the future.

The oil and food price shock produced a temporary rise in inflation, causing purchasing power losses and as a consequence a negative impact on consumption expenditures. However, the effects of these shocks have dissipated since the latter part of 2011. Libyan oil output is recovering faster than expected and the commitment of Saudi Arabia and the UAE to offset an eventual cut in Iranian exports helps to keep prices within a range which does not cause a threat to global economic stability.

Natural disasters produced volatility in short-term growth, with the most severe one, the Tohoku earthquake, provoking immediately a large fall in Japanese real output and disruption of the global supply chain. Later in the year, the floods in Thailand produced a similar effect, although with a smaller magnitude, given the limited size of the Thai economy. The global supply chain is back to normalcy following the recovery in Japanese and Thai manufacturing production and exports.

The normalization of monetary and fiscal policies in emerging economies from the expansionary mode adopted to counteract the effects of the global financial shock of 2008 was able to curb an inflationary trend but at the same time set in motion a cyclical downswing in economic activity. Since the third quarter of 2011, the central banks of emerging economies - starting with the Central Bank of Brazil and followed by others in Latin America and Asia - have made a gradual exit from tight monetary and credit policies in order to stimulate growth.

Given that most of the forces underlying the deceleration of economic activity last year have faded, cyclical dynamics are pointing to acceleration over the next few months. Global manufacturing PMI rose for the second consecutive month in January 2012, driven by a surge in new orders, while there was a large drop in finished goods inventories, a movement signaling an expansion of global industrial output in the short-term, thus ultimately leading to a strengthening of the demand for minerals and metals.

Global IP growth plunged in 4Q11, but there is evidence of performance improvement in some countries by yearend. Although US manufacturers were ramping up production, in Asia output was cut to allow for a slowing down in inventory accumulation. As suggested by the rise in the new orders/inventory ratio, it is highly likely that these drags on global manufacturing are diminishing.

Of course, the continuation of industrial production recovery is conditional on the expansion of final demand. Global retail sales were showing a poor performance by the end of 2011, mostly influenced by the recession in Europe. On the other hand, retail sales in emerging economies have accelerated and global car sales are rebounding, helping to create momentum for global industrial production growth.

The combination of declining global inflation, accommodative monetary policies, inventory building, and a positive feedback loop from improving asset prices, has the potential to create a brighter global economic outlook for 2012 - fueled by emerging market economies - in which acceleration is expected to take place in the second half of the year.

A moderate global economic performance is expected, given the broad-based need of developed economies to cut budget deficits in order to address the debt sustainability issue. In addition, the deleveraging of European banks is tightening credit and producing recessionary pressures on the Euro area, working also as a drag on emerging market growth. However, global growth is estimated to be strong enough to sustain a robust demand for minerals and metals.

In this context, the Euro area debt crisis remains overwhelmingly the downside risk to world economic growth. In the short-term, the European Central Bank (ECB) extension of the collateral pool and 3-year financing to banks has generated expectations that official support mechanisms will be able to deal with the crisis, translated into a decline in Euro area tail risks and a rally in risk assets.

Table of Contents

For instance, January 2012 was the best January for emerging market equities since 2001, and Italian and Spanish 10-yr sovereign bond yields fell 1,778 and 1,453 basis points, respectively, from the end of November 2011 to mid-February 2012.

At the same time, the ECB support for the banking system has helped to give policy makers time to underpin sovereign funding.

More fundamentally, securing political agreement to build funding capacity to meet the large potential needs of the Euro area debt-troubled countries is a key move to produce a powerful deterrent to the crisis spillover to the global economy.

China's economy performed well in 2011, with growth slowing smoothly, but still being very robust in absolute terms given its size as the world's second largest economy. There was no property sector collapse or local government debt crisis, two of the major financial markets concerns. For this year, the Chinese economy faces two major risks: the effect of the weakening of exports resulting from the European recession and the deceleration in housing investment.

Exports are decelerating, very likely bottoming in 1H12. Despite being the largest world exporter, Chinese growth has been primarily driven by domestic demand, a characteristic that helps to explain the resilience of China's economy during the global recessions of 1998, 2001 and 2008/2009.

Given the reversal in the inflation trend and the slowing of the pace of economic activity, the focus of government authorities has changed from inflation fighting to supporting growth. Some policy easing is beginning to be implemented and likely to become more intense if needed: (a) a gradual exiting from the tight monetary policy implemented since mid-2010; (b) some loosening in credit controls, mostly for small and medium sized enterprises and for first mortgages; (c) increases in infrastructure investment, chiefly in the Central and Western regions of the country and social housing spending.

The ongoing policy restrictions in the property sector have led to weakness in sales and housing starts. The slowdown in overall construction and the fall in land purchases have caused a sharp deceleration in property investment.

It is highly likely that social housing will have an important role in Chinese property construction, as it allows the government to maintain restrictions on credit to the sector, contributing to make house prices more affordable while offsetting the negative impact on growth arising from the performance of the housing market. About 8 million units of social housing were completed in 2011 against 3 million in 2010, and another 8 million are estimated to be delivered this year.

Given the importance of property construction in the Chinese economy, a push for a rapid increase in social housing construction is highly likely in the event of the emergence of recessionary pressures.

## Edgar Filing: Vale S.A. - Form 6-K

After falling in 2010 - the first drop in many years - Chinese iron ore imports increased by 10.8% in 2011, reaching 687 Mt, which represents 64.8% of the global seaborne trade. Seaborne trade in 2011 was 1.065 billion metric tons, rising 7.0% over the prior year.

The recession in Europe has had a negative impact on the global demand for iron ore and pellets. Our sales of iron ore and pellets to Europe dropped significantly in 4Q11, but we were able to more than offset the demand contraction in the region, setting records for both annual and fourth quarter shipments.

Despite the economic downturn in Europe, we expect a tight global market for iron ore this year, as Chinese demand continues to grow and supply expansion becomes constrained.

Project execution remains a major challenge, and only a limited number of small low-quality high cost projects will come on stream in 2012.

Impoverishment of the quality of existing reserves, reflected in lower Fe content, higher impurities and greater volumes of tailings, contributes to higher opex and capex costs and limits supply growth as it forces mining companies to invest in new capacity just to keep up with replacing lost capacity.

India, the third largest global supplier, saw its exports decreasing for the second year in a row, reaching 69.5 Mt last year against the peak of 113.9 Mt reached in 2009. India supplied 31.0% of Chinese imports in 2009, but since then it has lost ground, accounting for only 9.7% in 2011. The government ban on illegal mining and the

Table of Contents

need to allocate additional volumes of iron ore to feed expanding domestic steel production has created a downward trend for Indian exports, which is expected to continue over the next few years.

Given the challenges to supply growth, high prices are required to incentivize production from marginal high-cost miners, such as the Chinese iron ore producers and non-traditional suppliers. For instance, simultaneously to the rise in real iron ore prices and reflecting the relative scarcity of iron ore in the world, during the last ten years China more than doubled the number of countries from which it imports iron ore, recently reaching 46.

Alongside the adoption of price flexibility, Vale is building a distribution network to enhance its competitiveness in the global iron ore market. In addition to a fleet of very large ore carriers (Valemax), we are implementing distribution centers in the Middle East – Oman is already in operation – and Southeast Asia, the Malaysian center, will come on stream in 2014.

Given the long distance from our ports to these regions, the distribution centers will develop an important role, increasing flexibility to meet client demand in a more timely manner and creating new storage and blending capacity. The blending of different ores will improve our ability to satisfy client demand for specific types of products.

Our first floating transfer station, located in Subic Bay, in the Philippines, is starting operations, making feasible total or partial transfer of iron ore cargoes from the Valemax vessels to smaller ships. According to our distribution strategy, about 85% of the distance between Brazil and Asia will be covered by large low-cost vessels sailing to the distribution centers and the transfer station, with the remaining distance being covered by smaller ships, better suited to accessing smaller ports with a high level of operating safety. Therefore, the strategy will contribute to increase our capacity to service clients at lower costs.

Global stainless steel output reached an all-time high figure of 33.181 million metric tons in 2011. It increased 3.8% over 2010, which saw a strong recovery in production, rising 23.6% against the prior year. After some slowing in 4Q11, the demand for stainless steel is improving again as we enter 2012, with orders increasing in the Americas and Europe.

The demand for nickel for non-stainless steel applications continues to increase. Some major end users of nickel are growing strongly: aerospace, industrial gas turbines, autos, heavy equipment and energy.

The improvement in expectations concerning the Euro area debt crisis was one of main factors underlying the recent nickel price rally, from the lows of US\$ 17,000 at the end of November 2011 to the recent level of US\$ 21,000. Given the demand prospects, the outlook for nickel prices depends on the pace of the ramp up of new projects and Chinese pig iron production. The downside risk for prices is limited by the rising costs of nickel pig iron, which contributes to support prices above US\$ 17,000.



Table of Contents

• **REVENUES**

In 2011, our operating revenues achieved an all-time high of US\$ 60.389 billion, 29.9% above the previous record of US\$ 46.481 billion in 2010.

The increase in revenues was primarily due to the effect of higher prices, which added US\$ 10.943 billion, driven mostly by iron ore US\$ 8.215 billion and pellets US\$ 1.360 billion while greater sales volumes contributed US\$ 2.965 billion.

Revenues totaled US\$ 14.755 billion in 4Q11, a decrease of US\$ 1.986 billion, or 11.9%, compared to 3Q11. The effect of lower iron ore prices, US\$ 2.077 billion, was only partially offset by larger volumes, US\$ 424 million. The realized price of iron ore resulted from a more diversified menu of pricing options, all of them referred to spot price indices, tending to reflect more contemporaneous market prices.

Sales of bulk materials iron ore, pellets, manganese ore, ferroalloys, metallurgical and thermal coal represented 74.4% of operating revenues, in line with 74.2% in 2010. The share of base metals decreased to 15.9% from 17.6% in 2010, due to the sale of the aluminum assets in February 2011. Sales of fertilizers represented 5.9%, above the 4.0% mark for last year. Logistics services contributed 2.9% and other products 0.9%.

In 2011, sales to Asia represented 52.8% of total revenues, slightly below 53.3% in 2010. The share of sales to clients in the Americas was 25.2%, up from 23.6% last year, due to increased sales to the US and Brazil. Revenues from shipments to Europe were 18.9%, down from 19.2% in 2010, while the rest of the world contributed 3.1%.

On a country basis, China was responsible for 32.4% of the 2011 revenues, Brazil 18.1%, Japan 12.0%, Germany 6.3%, South Korea 4.4% and Italy 3.2%.

Table of Contents**Table 2 - OPERATING REVENUE BREAKDOWN**

US\$ million	4Q10	3Q11	4Q11	2010	%	2011	%
<b>Bulk materials</b>	<b>10,875</b>	<b>12,764</b>	<b>10,983</b>	<b>34,478</b>	<b>74.2</b>	<b>44,948</b>	<b>74.4</b>
<b>Ferrous minerals</b>	<b>10,634</b>	<b>12,479</b>	<b>10,620</b>	<b>33,708</b>	<b>72.5</b>	<b>43,890</b>	<b>72.7</b>
Iron ore	8,476	10,136	8,483	26,383	56.8	35,008	58.0
Pellets	1,918	2,149	1,980	6,373	13.7	8,112	13.4
Manganese ore	44	46	32	258	0.6	171	0.3
Ferroalloys	170	139	115	621	1.3	557	0.9
Pellet plant operation services	10	9	10	30	0.1	38	0.1
Others	16			43	0.1	4	
<b>Coal</b>	<b>241</b>	<b>285</b>	<b>363</b>	<b>770</b>	<b>1.7</b>	<b>1,058</b>	<b>1.8</b>
Thermal coal	51	124	181	298	0.6	510	0.8
Metallurgical coal	191	161	182	472	1.0	548	0.9
<b>Base metals</b>	<b>3,019</b>	<b>2,292</b>	<b>2,363</b>	<b>8,200</b>	<b>17.6</b>	<b>9,628</b>	<b>15.9</b>
Nickel	1,437	1,437	1,265	3,835	8.3	5,720	9.5
Copper	753	646	874	1,608	3.5	2,547	4.2
PGMs	77	81	87	101	0.2	493	0.8
Precious metals	45	99	114	72	0.2	391	0.6
Cobalt	16	29	23	30	0.1	94	0.2
Aluminum	296			1,019	2.2	141	0.2
Alumina	385			1,507	3.2	236	0.4
Bauxite	10			28	0.1	6	
<b>Fertilizer nutrients</b>	<b>769</b>	<b>1,037</b>	<b>856</b>	<b>1,846</b>	<b>4.0</b>	<b>3,547</b>	<b>5.9</b>
Potash	74	80	77	280	0.6	287	0.5
Phosphates	512	713	563	1,211	2.6	2,395	4.0
Nitrogen	178	216	199	337	0.7	782	1.3
Others	5	28	17	18		83	0.1
<b>Logistics services</b>	<b>335</b>	<b>502</b>	<b>420</b>	<b>1,460</b>	<b>3.1</b>	<b>1,726</b>	<b>2.9</b>
Railroads	262	358	300	1,107	2.4	1,265	2.1
Ports	73	144	120	353	0.8	461	0.8
<b>Others</b>	<b>209</b>	<b>146</b>	<b>133</b>	<b>497</b>	<b>1.1</b>	<b>540</b>	<b>0.9</b>
<b>Total</b>	<b>15,207</b>	<b>16,741</b>	<b>14,755</b>	<b>46,481</b>	<b>100.0</b>	<b>60,389</b>	<b>100.0</b>

Table of Contents**Table 3 - OPERATING REVENUE BY DESTINATION**

US\$ million	4Q10	3Q11	4Q11	2010	%	2011	%
<b>North America</b>	<b>817</b>	<b>786</b>	<b>751</b>	<b>2,028</b>	<b>4.4</b>	<b>3,177</b>	<b>5.3</b>
USA	332	449	341	828	1.8	1,672	2.8
Canada	461	304	382	1,126	2.4	1,403	2.3
Mexico	23	33	27	74	0.2	103	0.2
<b>South America</b>	<b>2,786</b>	<b>3,305</b>	<b>2,749</b>	<b>8,960</b>	<b>19.3</b>	<b>12,022</b>	<b>19.9</b>
Brazil	2,496	2,985	2,487	8,150	17.5	10,914	18.1
Others	290	320	262	810	1.7	1,107	1.8
<b>Asia</b>	<b>8,293</b>	<b>8,998</b>	<b>8,151</b>	<b>24,791</b>	<b>53.3</b>	<b>31,858</b>	<b>52.8</b>
China	5,267	5,927	4,614	15,379	33.1	19,571	32.4
Japan	1,662	1,937	2,002	5,240	11.3	7,238	12.0
South Korea	735	701	888	1,934	4.2	2,643	4.4
Taiwan	429	236	422	1,179	2.5	1,281	2.1
Others	200	197	224	1,059	2.3	1,125	1.9
<b>Europe</b>	<b>2,681</b>	<b>3,166</b>	<b>2,567</b>	<b>8,911</b>	<b>19.2</b>	<b>11,437</b>	<b>18.9</b>
Germany	1,038	1,114	774	3,092	6.7	3,792	6.3
France	354	205	191	716	1.5	801	1.3
Netherlands	239	186	113	566	1.2	627	1.0
UK	320	236	363	1,060	2.3	1,351	2.2
Italy	322	479	415	1,043	2.2	1,908	3.2
Turkey	71	138	65	378	0.8	413	0.7
Spain	82	136	93	332	0.7	467	0.8
Others	257	672	552	1,724	3.7	2,078	3.4
<b>Middle East</b>	<b>289</b>	<b>277</b>	<b>299</b>	<b>978</b>	<b>2.1</b>	<b>1,075</b>	<b>1.8</b>
<b>Rest of the World</b>	<b>341</b>	<b>209</b>	<b>238</b>	<b>813</b>	<b>1.7</b>	<b>820</b>	<b>1.4</b>
<b>Total</b>	<b>15,207</b>	<b>16,741</b>	<b>14,755</b>	<b>46,481</b>	<b>100.0</b>	<b>60,389</b>	<b>100.0</b>

- COSTS**

In 4Q11, costs of goods sold (COGS) were down by US\$ 227 million on a quarter-on-quarter basis, amounting to US\$ 6.025 billion. In net terms, if we discount the effect of exchange rate variation(2), volumes and depreciation charges, COGS increased US\$ 20 million when compared to 3Q11. Higher costs with personnel were the main reason for the increase, contributing with US\$ 72 million. The rise in these costs reflected the two-year collective agreement with our employees in Brazil.

Outsourced services and materials (equipment, parts and inputs), which also tend to reflect more intensely cyclical cost pressures, decreased by US\$ 62 million and US\$ 46 million, respectively, once the effects of exchange rate variation and lower volumes are excluded.

Reflecting a tight labor market, personnel costs reached US\$ 891 million, representing 14.8% of COGS, against US\$ 819 million in 3Q11. The two-year collective agreement of our employees in Brazil increased costs by US\$ 63 million, US\$ 21 million related to the annual wage rise of 8.6% in November 2011, and the remaining US\$ 42 million due to the retention bonus, which is being accrued linearly over a 2-year period. The demand from the execution of our large pipeline of projects caused an increase in our employee numbers to 79,646 in December 2011 from 77,055 in September 2011, thus raising costs by US\$ 10 million.

---

(2) COGS currency exposure in 4Q11 was made up as follows: 54% Brazilian reais, 19% US dollars, 18% Canadian dollars, 3% Australian dollars, 1% Indonesian rupiah and 5% other currencies.

Table of Contents

Expenditures with outsourced services totaled US\$ 1.044 billion 17.3% of COGS against US\$ 1.202 billion in 3Q11. The US\$ 158 million cost decrease was chiefly caused by the appreciation of the US dollar (US\$ 83 million), lower volumes (US\$ 13 million) and a seasonal decrease in operational services and railway transportation (US\$ 62 million).

Cost of materials 14.7% of COGS was US\$ 887 million, down 13.5% against 3Q11. Excluding the effects of lower volumes (US\$ 10 million) and currency price changes (cost decrease of US\$ 82 million), costs of materials decreased by US\$ 46 million vis-à-vis 3Q11, mainly reflecting the effect of a 10% decrease in the run-of-mine (ROM) handling, which consequently affected the production inputs, such as explosives and grinding bodies.

In 4Q11, expenses with energy consumption accounted for 12.5% of COGS, amounting to US\$ 756 million, and showing a decrease of 6.8% when compared to the previous quarter. Costs of electricity consumption were US\$ 220 million, 5.6% lower than 3Q11. Exchange rate variation and lower volumes led to decreases in costs of US\$ 18 million and US\$ 7 million, respectively. On the other hand, a US\$ 12 million cost increase was due to the higher production at our Sudbury operations.

Expenditures with fuel and gas decreased 7.3%, reaching US\$ 536 million, mainly reflecting the exchange rate variation of US\$ 47 million.

The cost of purchasing products from third parties amounted to US\$ 562 million 9.3% of COGS against US\$ 608 million in 3Q11.

The purchase of iron ore and pellets amounted to US\$ 425 million, against US\$ 331 million in the previous quarter. The volume of iron ore bought from smaller miners was 2.2 million metric tons (Mt) in 4Q11 compared to 2.4 Mt in 3Q11. The acquisition of pellets from our joint ventures amounted to 780,000 metric tons in this quarter.

Expenditures with the purchase of base metals products declined to US\$ 90 million from US\$ 194 million in 3Q11, impacted by lower nickel and copper ore purchases. We bought 1,800 t of nickel intermediates, against 2,400 t in 3Q11, and copper ore purchases totaled 8,300 t, down from 11,300 t in 3Q11.

Costs with shared services were down US\$ 8 million to US\$ 97 million in 4Q11, which is explained by the effects of exchange rate variation.

Depreciation and amortization 17.5% of COGS amounted to US\$ 1.057 billion, against US\$ 923 million in 3Q11. The depreciation of nickel operations increased by US\$ 82 million, mainly due to the ramp-up of Sudbury operations, which have a relatively higher depreciation cost.

Other operational costs reached US\$ 731 million against US\$ 759 million in 3Q11. Exchange rate variation and lower leasing fees for our pelletizing plants reduced costs by US\$ 71 million and US\$ 24 million, respectively, which were partially offset by (i) the effect of the 8.6% wage hike in Brazil, which added US\$ 16 million in profit sharing for our employees in Brazil, (ii) greater expenses with royalties (US\$ 12

million) and demurrage charges (US\$ 7 million).

Sales, general and administrative expenses (SG&A) totaled US\$ 827 million in 4Q11, US\$ 173 million above 3Q11. Greater SG&A expenses were primarily caused by a rise in administrative expenses (US\$ 243 million), which were partially offset by lower selling expenses (US\$ 70 million). Administrative expenses were impacted mainly by higher services and personnel expenses of US\$ 112 million and US\$ 44 million, respectively.

Table of Contents

Research and development (R&D), which reflects our investment in creating long-term growth opportunities, amounted to US\$ 529 million, US\$ 89 million higher than 3Q11(3). In 2011, R&D amounted to US\$ 1.674 billion, 91% higher than 2010.

Other operational expenses reached US\$ 1.023 billion, against US\$ 643 million in 3Q11, mainly due to the increase related to pre-operating and start-up expenses (US\$ 160 million), which reached US\$ 488 million in 4Q11. Pre-operating costs related to VNC, Onça Puma, Moatize and Rio Colorado were US\$ 136 million, US\$ 97 million, US\$ 61 million and US\$ 16 million, respectively.

Expenses with non-scheduled maintenance of some of Vale Fertilizantes plants led to charges to idle capacity of US\$ 72 million in 4Q11. In addition, there was a write-down of US\$ 172 million for contingencies, mainly in our Australian coal operations.

**Table 4 - COGS BREAKDOWN**

US\$ million	4Q10	3Q11	4Q11	2010	%	2011	%
<b>Outsourced services</b>	<b>847</b>	<b>1,202</b>	<b>1,044</b>	<b>2,740</b>	<b>14.6</b>	<b>4,244</b>	<b>18.0</b>
Cargo freight	223	368	293	816	4.3	1,240	5.3
Maintenance of equipments and facilities	242	203	214	714	3.8	790	3.4
Operational Services	256	295	194	715	3.8	877	3.7
Others	126	336	343	495	2.6	1,337	5.7
<b>Material</b>	<b>826</b>	<b>1,025</b>	<b>887</b>	<b>2,862</b>	<b>15.2</b>	<b>3,758</b>	<b>15.9</b>
Spare parts and maintenance equipment	332	374	299	1,256	6.7	1,396	5.9
Inputs	273	456	421	931	4.9	1,611	6.8
Tires and conveyor belts	38	57	49	174	0.9	206	0.9
Others	182	138	118	500	2.7	545	2.3
<b>Energy</b>	<b>861</b>	<b>811</b>	<b>756</b>	<b>3,092</b>	<b>16.4</b>	<b>3,149</b>	<b>13.4</b>
Fuel and gases	484	578	536	1,880	10.0	2,181	9.3
Electric energy	377	233	220	1,212	6.4	967	4.1
<b>Acquisition of products</b>	<b>631</b>	<b>608</b>	<b>563</b>	<b>1,669</b>	<b>8.9</b>	<b>2,274</b>	<b>9.6</b>
Iron ore and pellets	399	331	425	963	5.1	1,411	6.0
Aluminum products	76			285	1.5	18	0.1
Nickel products	135	194	90	358	1.9	606	2.6
Other products	21	83	48	63	0.3	239	1.0
<b>Personnel</b>	<b>692</b>	<b>819</b>	<b>891</b>	<b>2,081</b>	<b>11.1</b>	<b>3,138</b>	<b>13.3</b>
<b>Depreciation and exhaustion</b>	<b>922</b>	<b>923</b>	<b>1,057</b>	<b>2,803</b>	<b>14.9</b>	<b>3,735</b>	<b>15.8</b>
<b>Shared services</b>	<b>69</b>	<b>105</b>	<b>97</b>	<b>265</b>	<b>1.4</b>	<b>399</b>	<b>1.7</b>
<b>Others</b>	<b>1,193</b>	<b>759</b>	<b>731</b>	<b>3,304</b>	<b>17.6</b>	<b>2,877</b>	<b>12.2</b>
<b>Total</b>	<b>6,040</b>	<b>6,252</b>	<b>6,025</b>	<b>18,814</b>	<b>100.0</b>	<b>23,573</b>	<b>100.0</b>

- OPERATING INCOME**

In 2011, operating income, as measured by adjusted EBIT, set an annual record of US\$ 30.112 billion, 38.8% higher than the previous record of US\$ 21.695 billion in 2010. Excluding the non-recurring gain from the sale of aluminum assets in 1Q11, adjusted EBIT totaled US\$ 28.599 billion in 2011. Operating margin also reached an all-time high of 48.5% in 2011, excluding the non-recurring gain, greater than our most recent

record of 47.9% in 2010.

In 4Q11, operating income was US\$ 6.023 billion, lower than the US\$ 8.373 billion in the previous quarter. The main reasons for the decrease of US\$ 2.350 billion were the impact of (i) lower sales prices, US\$ 2.623

---

(3) This is an accounting figure. In the Investment section of this press release we disclose the amount of US\$ 579 million for research and development, computed in accordance with the financial disbursement in 4Q11.



Table of Contents

billion, (ii) higher COGS, US\$ 219 million, which were offset by a positive exchange rate effect on COGS of US\$ 421 million, (iii) higher SG&A, US\$ 173 million, (iv) higher pre-operating and start-up expenses, US\$ 160 million, and (v) higher contingencies, US\$ 139 million. Those negative impacts were partly offset by the higher sales volume effect of US\$ 637 million.

The adjusted EBIT margin was 41.7% in 4Q11 versus 51.2% in the previous quarter.

- **NET EARNINGS**

In 2011, Vale achieved a new record in net earnings, at US\$ 22.885 billion, equal to US\$ 4.36 per share on a fully diluted basis. It represents an increase of 32.6% from the previous record of US\$ 17.264 billion, equal to US\$ 3.25 per share, reached in 2010.

In 4Q11, net earnings decreased to US\$ 4.672 billion, equal to US\$ 0.90 per share on a fully diluted basis, from US\$ 4.935 billion in 3Q11.

Net financial expenses decreased to US\$ 408 million in 4Q11, from US\$ 634 million in the previous quarter. Financial revenues totaled US\$ 139 million, lower than the US\$ 188 million of 3Q11, while financial expenses declined to US\$ 547 million from US\$ 822 million in the previous quarter.

The mark-to-market effect of the shareholders' debentures caused a non-cash charge of US\$ 72 million in 4Q11.

The net effect of the mark-to-market of the transactions with derivatives had a positive impact on earnings of US\$ 46 million in 4Q11, against a negative charge of US\$ 568 million in 3Q11. These transactions produced a net positive cash flow impact of US\$ 334 million.

The mark-to-market of the currency and interest rate swaps, structured to convert debt denominated in other currencies into US dollars to protect our cash flow from exchange rate volatility, produced a negative non-cash effect of US\$ 46 million in 4Q11, but a positive cash flow impact of US\$ 224 million.

Nickel derivatives operations had a positive non-cash effect of US\$ 90 million on net earnings in 4Q11 and a positive cash flow impact of US\$ 98 million.

The derivative transactions related to bunker oil, structured to minimize the volatility of the cost of maritime freight, had a positive non-cash impact of US\$ 2 million, with a positive impact of US\$ 12 million on our cash flow.

Because there was only a slight depreciation of Vale's functional currency, the Brazilian real, against the US dollar<sup>(4)</sup>, in 4Q11, foreign exchange and monetary variations caused a negative impact on our net earnings of US\$ 108 million, against US\$ 2.191 billion in 3Q11, when there was a sharp depreciation of the Brazilian real.

Equity income totaled US\$ 167 million in 4Q11, against US\$ 282 million in the last quarter. The non-consolidated affiliates in the bulk materials business were the major contributors with US\$ 244 million, followed by logistics with US\$ 25 million. Base metals and other investments caused a negative effect on net earnings of US\$ 12 million and US\$ 90 million, respectively.

Individually, the greatest contributors to equity income were Samarco (US\$ 186 million), MRS (US\$ 29 million) and Hispanobras (US\$ 25 million).

---

(4) From the beginning to the end of the 4Q11 period, the Brazilian real depreciated 1.1% against the US dollar.

Table of Contents

- CASH GENERATION**

In 2011, we reached a new record for cash generation, as measured by the adjusted EBITDA, of US\$ 35.272 billion, 35.1% higher than our previous record of US\$ 26.116 billion in 2010. Excluding the non-recurring gain of US\$ 1.513 billion in 1Q11, adjusted EBITDA for 2011 amounts to US\$ 33.759 billion, also an all-time high figure.

In 4Q11, Vale's adjusted EBITDA was US\$ 7.396 billion, 23.2% lower than the previous quarter, which was mainly due to lower sales prices.

Dividends received from non-consolidated affiliates were US\$ 205 million, with Samarco (US\$ 112 million), MRS (US\$ 48 million) and Itabasco (US\$ 38 million) being the major contributors.

Before R&D expenditures and others which reduced adjusted EBITDA, the share of bulk materials in cash generation decreased to 88.3% in 4Q11 from 90.1% in 3Q11, while base metals increased to 8.8% from 6.5% in the previous quarter. The share of fertilizers was 2.5%, and logistics, 0.4%.

**Table 5 - QUARTERLY ADJUSTED EBITDA**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Net operating revenues	14,929	16,361	14,427	45,293	58,990
COGS	(6,040)	(6,252)	(6,025)	(18,814)	(23,573)
SG&A	(647)	(654)	(827)	(1,701)	(2,334)
Research and development	(301)	(440)	(529)	(878)	(1,674)
Other operational expenses	(774)	(643)	(1,023)	(2,205)	(2,810)
Gain on sale of assets					1,513
<b>Adjusted EBIT</b>	<b>7,167</b>	<b>8,373</b>	<b>6,023</b>	<b>21,695</b>	<b>30,112</b>
Depreciation, amortization & exhaustion	1,073	1,018	1,168	3,260	4,122
Dividends received	629	240	205	1,161	1,038
<b>Adjusted EBITDA</b>	<b>8,869</b>	<b>9,631</b>	<b>7,396</b>	<b>26,116</b>	<b>35,272</b>

**Table 6 - ADJUSTED EBITDA BY BUSINESS AREA**

US\$ million	4Q10	3Q11	4Q11	2010	2011
<b>Bulk materials</b>	<b>7,966</b>	<b>9,159</b>	<b>7,044</b>	<b>23,995</b>	<b>31,462</b>
Ferrous minerals	7,981	9,173	7,154	23,974	31,630
Coal	(15)	(14)	(110)	21	(168)
<b>Base metals</b>	<b>978</b>	<b>660</b>	<b>700</b>	<b>2,294</b>	<b>4,842</b>
<b>Fertilizer nutrients</b>	<b>86</b>	<b>239</b>	<b>203</b>	<b>176</b>	<b>794</b>
<b>Logistics</b>	<b>56</b>	<b>107</b>	<b>34</b>	<b>345</b>	<b>259</b>

<b>Others</b>	<b>(217)</b>	<b>(534)</b>	<b>(585)</b>	<b>(694)</b>	<b>(2,085)</b>
<b>Total</b>	<b>8,869</b>	<b>9,631</b>	<b>7,396</b>	<b>26,116</b>	<b>35,272</b>

- **INVESTMENTS**

- **Organic growth**

Our growth strategy prioritizes the exploitation of opportunities for organic growth, focusing on the diversification by product and geography, with world-class and low-cost assets able to create value across the cycles. Our project portfolio involves both investment-based demand products such as iron ore, pellets, coal and copper, as well as consumption-based demand products, such as nickel and fertilizers. Therefore,

Table of Contents

the profile of our portfolio positions us to meet the needs stemming from the long-term growth dynamics of emerging market economies.

The Brazilian demand for fertilizers has been expanding at 5.7% per year over the last twenty years and, given the potential of its agricultural production, it is expected to remain on the growth track for the long-term. This suggests the large potential of value creation of our investments in the fertilizer business, which takes advantage of the opportunities offered by the Brazilian market.

Vale invested US\$ 6.686 billion, excluding acquisitions, in 4Q11. Capital expenditure on organic growth totaled US\$ 4.692 billion, out of which US\$ 4.112 billion was dedicated to project execution, US\$ 579 million to research and development (R&D) and US\$ 1.995 billion to the maintenance of existing operations.

Expenditures with R&D in 4Q11 included US\$ 235 million in mineral exploration, US\$ 298 million in conceptual, pre-feasibility and feasibility studies, and US\$ 47 million to develop new processes, technological innovations and adaptation of technologies.

In 2011, investments excluding acquisitions totaled US\$ 17.994 billion, with a significant increase of 42% over the US\$ 12.705 billion invested in 2010, however still below budget due to challenges in project execution. Out of the amount disbursed in 2011, US\$ 11.684 billion was allocated to the development of projects, US\$ 1.742 billion to R&D and US\$ 4.568 billion to stay-in-business.

Investments in corporate social responsibility reached US\$ 1.488 billion, US\$ 1.030 billion of which was destined for environmental protection and US\$ 457 million for social projects.

Investments of US\$ 10.247 billion were made in the bulk materials business, US\$ 4.082 billion in base metals, US\$ 1.347 billion in fertilizers, US\$ 820 million in power generation, US\$ 460 million in steel projects, US\$ 446 million in logistics services for general cargo, and US\$ 592 million in corporate activities and other business segments.

**Table 7 - TOTAL INVESTMENT BY CATEGORY**

US\$ million	4Q10	3Q11	4Q11	2010	%	2011	%
<b>Organic growth</b>	<b>3,434</b>	<b>3,500</b>	<b>4,692</b>	<b>9,375</b>	<b>73.8</b>	<b>13,426</b>	<b>74.6</b>
Projects	3,103	3,113	4,112	8,239	64.9	11,684	64.9
R&D	332	387	579	1,136	8.9	1,742	9.7
<b>Stay-in-business</b>	<b>1,657</b>	<b>1,029</b>	<b>1,995</b>	<b>3,330</b>	<b>26.2</b>	<b>4,568</b>	<b>25.4</b>
<b>Total</b>	<b>5,091</b>	<b>4,529</b>	<b>6,686</b>	<b>12,705</b>	<b>100.0</b>	<b>17,994</b>	<b>100.0</b>

**Table 8 - TOTAL INVESTMENT BY BUSINESS AREA**

Edgar Filing: Vale S.A. - Form 6-K

US\$ million	4Q10	3Q11	4Q11	2010	%	2011	%
<b>Bulk materials</b>	<b>2,976</b>	<b>2,675</b>	<b>3,805</b>	<b>7,046</b>	<b>55.5</b>	<b>10,247</b>	<b>56.9</b>
Ferrous minerals	2,610	2,333	3,415	6,079	47.8	9,049	50.3
Coal	366	341	391	967	7.6	1,197	6.7
<b>Base metals</b>	<b>1,095</b>	<b>1,062</b>	<b>1,293</b>	<b>2,973</b>	<b>23.4</b>	<b>4,082</b>	<b>22.7</b>
<b>Fertilizer nutrients</b>	<b>362</b>	<b>307</b>	<b>590</b>	<b>843</b>	<b>6.6</b>	<b>1,347</b>	<b>7.5</b>
<b>Logistics services</b>	<b>77</b>	<b>115</b>	<b>161</b>	<b>247</b>	<b>1.9</b>	<b>446</b>	<b>2.5</b>
<b>Power generation</b>	<b>152</b>	<b>191</b>	<b>315</b>	<b>656</b>	<b>5.2</b>	<b>820</b>	<b>4.6</b>
<b>Steel</b>	<b>88</b>	<b>54</b>	<b>299</b>	<b>186</b>	<b>1.5</b>	<b>460</b>	<b>2.6</b>
<b>Others</b>	<b>342</b>	<b>126</b>	<b>224</b>	<b>755</b>	<b>5.9</b>	<b>592</b>	<b>3.3</b>
<b>Total</b>	<b>5,091</b>	<b>4,529</b>	<b>6,686</b>	<b>12,705</b>	<b>100.0</b>	<b>17,994</b>	<b>100.0</b>

- **Projects delivered in 2011**

In 2011, Vale delivered five projects: (i) Onça Puma, our first ferronickel operation, in Brazil, (ii) Oman, two pelletizing plants and a distribution center in the industrial site of Sohar, (iii) Moatize, our first

Table of Contents

greenfield coal project as well as our first project in Africa, in the province of Tete, Mozambique, and two hydropower plants (iv) Karebbe in Indonesia and (v) Estreito in Brazil.

Onça Puma is a ferronickel operation (mine and processing plant) in the Brazilian state of Pará, built mostly on lateritic nickel deposits of saprolitic ore, which started up in March 2011. The commissioning of the second line was concluded and the first matte was produced in January 2012, an important milestone. Its nominal production capacity is 53,000 metric tons per year of nickel contained in ferronickel, its final product.

The two pellet plants in Oman started production of direct reduction pellets. Each plant has the capacity to produce 4.5 Mtpy. The first plant is producing at full capacity and the second has been ramping up since November 2011. The bulk terminal and distribution center with the capacity to handle 40 Mt annually are fully operational.

The first phase of the Moatize coal asset began operations in August 2011. Total capacity is 11 Mtpy, of which 8.5 Mt of coking coal, chiefly premium hard coking coal. In November 2011, the Board of Directors approved Moatize II, which will increase coal production capacity in Mozambique to 22 Mtpy, as well as the implementation of the Nacala Corridor project, a world-class logistics railway and port infrastructure to support Moatize's expansion of production capacity.

Vale owns 67% of Sociedade Desenvolvimento Corredor do Norte S.A. (SDCN), the Mozambican company that controls each of the existing railways in Mozambique (CDN) and Malawi (CEAR), which are instrumental for linking Moatize to Nacala-à-Velha, where our maritime terminal will be located.

The Karebbe hydroelectric power plant in Sulawesi, Indonesia, came on stream in September 2011 and is projected to add 90 megawatts of average generating capacity. The plant supplies power to our Indonesian operations, which reduces our production costs and enables the potential expansion to 90,000 tons per year of nickel matte.

In 2011, four of the eight turbines of the Estreito hydroelectric power plant became operational. Estreito is our first hydroelectric power plant in the Northern region and is located in the Tocantins River, on the border between the Brazilian states of Maranhão and Tocantins. The plant will have an installed capacity of 1,087 megawatts. We have a 30% stake in the consortium that operates the plant.

In February 2012, our first floating transfer station started operation in Subic Bay, the Philippines, which allows total or partial transshipment of very large ore carriers (Valemax) to feed smaller ships. Subic Bay is a naturally well-protected location against ocean swells and winds, has a natural deep water draft, and is only a few days away from all Asian customers. Investments amounted to US\$ 52 million.

- **Portfolio asset management**

## Edgar Filing: Vale S.A. - Form 6-K

Expenditures to fund acquisitions totaled US\$ 1.416 billion in 2011, which mainly included: (i) US\$ 1.117 billion in the tender offer to acquire up to 100% of the publicly held shares of our subsidiary Vale Fertilizantes, (ii) US\$ 48 million for the acquisition of a fertilizer processing plant in Cubatão, Brazil and (iii) US\$ 173.5 million to acquire the control of Biopalma, in the state of Pará, Brazil, a project to produce biodiesel.

On December 12, 2011, our wholly owned subsidiary Mineração Naque S.A. concluded the tender offer, and as a result we acquired 83.8% of the publicly held common shares and 94.0% of the publicly held preferred shares of Vale Fertilizantes, which correspond to 0.1% of the total common shares and 29.8% of the total preferred shares. The total expenditure amounted to R\$ 2.078 billion (US\$ 1.117 billion). Subsequently, on January 26, 2012, we redeemed the remaining shares, and cancelled Vale Fertilizantes' listing.

- **Main approved projects under construction**

The pipeline of main projects approved by the Board of Directors, and under construction, is detailed in this section. Estimated start-up dates may be revised due to changes caused by several factors, including delays in environmental permits.



Table of Contents

Project	Estimated start-up	Realized capex	Expected capex		Status(1)
		US\$ million 2011	2012	US\$ million Total	
<b>IRON ORE MINING AND LOGISTICS</b>					
<b>Carajás Additional 40 Mtpy</b>	2H13	496	622	2,968	Installation license (LI) was issued. Executing earthworks services to install the conveyor belt. Civil engineering works continue in progress.
Construction of an iron ore dry processing plant, located in Carajás, Pará, Brazil.					
Estimated nominal capacity of 40 Mtpy.					48% of physical progress of mine and plant. Investments on logistics previously finalized. Total executed capex of US\$ 1.5 billion.
<b>CLN 150 Mtpy</b>	1H14	1,486	890	3,477	Offshore civil engineering works at Ponta da Madeira maritime terminal in progress. Conclusion of the civil engineering necessary for the installation of the car dumpers.
Increase Northern system railway and port capacity, including the construction of a fourth pier at the Ponta da Madeira maritime terminal, located in Maranhão, Brazil.					Railway Installation licenses (LI) issuance expected for 2H12.
Increase estimated EFC's logistics nominal capacity to approximately 150 Mtpy.					67% of physical progress. Total executed capex of US\$ 2.3 billion.
<b>Carajás Serra Sul S11D</b>	2H16	736	794	8,039	Preliminary environmental license (LP) issuance expected for 1H12. Installation license (LI) issuance expected for 1H13.
Development of a mine and processing plant, located in the Southern range of Carajás, Pará, Brazil.					
Estimated nominal capacity of 90 Mtpy.					25% of physical progress. Total realized capex of US\$ 1.1 billion.
<b>Serra Leste</b>	1H13	116	239	478	Civil engineering works for the plant and excavation in progress.

Construction of new processing plant, located in Carajás, Pará, Brazil					Issuance of installation licenses (LI) expected for the 1H12.
Estimated nominal capacity of 6 Mtpy.					26% of physical progress. Total executed capex of US\$ 143 million.
<b>Conceição Itabiritos</b>	2H13	366	184	1,174	The issuance of pending installation license (LI) for the energy transmission line is expected for 1H12. Assembly of mills finalized.
Construction of concentration plant, located in the Southeastern system, Minas Gerais, Brazil.					86% of physical progress. Total executed capex of US\$ 553 million.
Estimated nominal capacity of 12 Mtpy.					
<b>Vargem Grande Itabiritos</b>	1H14	371	429	1,645	Heavy equipment received. Issuance of installation license (LI) expected for 1H13.
Construction of new iron ore treatment plant, located in the Southern system, Minas Gerais, Brazil.					46% of physical progress. Total executed capex of US\$ 429 million.
Estimated nominal capacity of 10 Mtpy.					
<b>Conceição Itabiritos II</b>	2H14	150	297	1,189	Heavy equipments were received and assembly already started. Ongoing civil engineering works for the installation of primary crushers.
Adaptation of the plant to process low-grade itabirites, located in the Southeastern system, Minas Gerais, Brazil.					Installation licenses (LI) issued.
Estimated nominal capacity of 19 Mtpy (without additional net capacity).					20% of physical progress. Total executed capex of US\$ 159 million.
<b>Simandou I Zogota</b>	1H12	178	380	1,260	First production expected for 2012.

Development of the Zogota mine and processing plant in Simandou South, Guinea.

Estimated nominal capacity of 15 Mtpy.

<b>Teluk Rubiah</b>	1H14	168	367	1,371	Preliminary environmental license, construction and installation license issued. Issuance of operation license expected for 1H14. On schedule. Currently executing earthworks.
Construction of a maritime terminal with enough depth for the 400,000 dwt vessels and a stockyard. Located in Teluk Rubiah, Malaysia.					14% of physical progress. Total executed capex is US\$ 215 million.
Stockyard capable of handling up to 30 Mtpy of iron ore products.					

Table of Contents

Project	Estimated start-up	Realized capex	Expected capex		Status(1)
		US\$ million 2011	2012	US\$ million Total	
<b>PELLET PLANTS</b>					
<b>Tubarão VIII</b>	2H12	187	239	968	Currently executing assembly of equipment and metallic structures.
Eighth pellet plant at our existing complex at the Tubarão Port, Espírito Santo, Brazil.					
Issuance of operation license (LO) expected for 2H12.					
Estimated nominal capacity of 7.5 Mtpy.					
80% of physical progress. Total executed capex of US\$ 612 million.					
<b>Samarco IV</b>	1H14		-	1,693(2)	18% of physical progress of the pellet plant. Budget fully sourced by Samarco.
Construction of Samarco's fourth pellet plant, and expansion of mine, pipeline and maritime terminal infrastructure. Vale has a 50% stake in Samarco.					
Estimated nominal capacity of 8.3 Mtpy, increasing Samarco's capacity to 30.5 Mtpy.					
<b>COAL MINING AND LOGISTICS</b>					
<b>Moatize II</b>	2H14	73	499	2,068	Geological research studies and detailed engineering project in progress. No pending installation licenses (LI).
New pit and duplication of the Moatize CHPP, as well as all related infrastructure, located in Tete, Mozambique.					
4% of physical progress. Total executed capex of US\$ 73 million.					
Nominal capacity of 11 Mtpy (70% coking coal and 30% thermal).					
<b>Nacala corridor</b>	2H14	38	691	4,444	

Railway and port infrastructure connecting Moatize site to the Nacala-à-Velha maritime terminal, located in Nacala, Mozambique.		Signature of the concession agreement with the government of Malawi for the railway crossing the country.
Estimated nominal capacity of 18 Mtpy.		Development of the detailed engineering project in progress. Vegetation clearing licenses obtained for the construction of railway and maritime terminal in Mozambique.
		Project in early stage of development. Total executed capex of US\$ 38 million.

**COPPER MINING**

<b>Salobo</b>	1H12	586	296	2,337	The primary and secondary crushers, primary screening and conveyor belt have been commissioned.
Development of mine, plant, and related infrastructure, located in Marabá, Pará, Brazil.					Start-up of the initial line expected for April/2012 and of the second line for May/2012.
Estimated nominal capacity of 100,000 tpy of copper in concentrate.					97% of physical progress. Total executed capex of US\$ 2.0 billion.
<b>Salobo II</b>	2H13	267	581	1,427	Plant operation license (LO) issuance expected for 2H13.
Salobo expansion, raising of the tailing dam height and increase in mine capacity, located in Marabá, Pará, Brazil					49% of physical progress. Total executed capex of US\$ 354 million.
Additional estimated nominal capacity of 100,000 tpy of copper in concentrate.					

**NICKEL MINING AND REFINING**

<b>Long Harbour</b>	2H13	1,066	1,208	3,600	Finalizing civil engineering. Electromechanical assembly in progress.
---------------------	------	-------	-------	-------	---

Hydrometallurgical facility.  
Located in Long Harbour,  
Newfoundland and Labrador,  
Canada.

59% of physical progress. Total  
executed capex of US\$ 1.7 billion.

Estimated nominal capacity of  
refining 50,000 tpy of finished  
nickel, and associated copper and  
cobalt.

Table of Contents

Project	Estimated start-up	Realized capex	Expected capex		Status(1)
		US\$ million 2011	2012	US\$ million Total	
<b>Totten</b>  Nickel mine (re-opening) in Sudbury, Ontario, Canada. Estimated nominal capacity of 8,200 tpy	2H13	124	157	759	51% of physical progress. Total executed capex of US\$ 402 million.
<b>POTASH MINING AND LOGISTICS</b>					
<b>Rio Colorado</b>  Investments in a solution mining system, located in Mendoza, Argentina, renovation of railway tracks (440 km), construction of a railway spur (350 km) and a maritime terminal in Bahia Blanca, Argentina.  Estimated nominal capacity of 4.3 Mtpy of potash (KCl).	2H14	608	1,081	5,915	Construction of employees housing village finalized.  Environmental licenses for the railway spur were obtained, issuance of installation license (LI) expected for 1H12.  27% of physical progress. Total executed capex of US\$ 826 million.
<b>ENERGY</b>					
<b>Biodiesel</b>  Project to produce biodiesel from palm oil. Plantation of 80,000 ha of palm trees. Located in Pará, Brazil.  Estimated nominal capacity of 360,000 tpy of biodiesel.	2015	208	227	633	Planting palm trees. Biodiesel plant's FEL III expected for July 2013.  Preliminary environmental license (LP) and construction and installation license (LI) issuance expected 2H13.  Total executed capex of US\$ 343 million.
<b>STEELMAKING</b>					
<b>CSP(2)</b>	1H15	261	563	2,648	

Development of a steel slab plant in partnership with Dongkuk and Posco, located in Ceará, Brazil. Vale holds 50% of the joint venture.

The project implementation started in December 2011.

Preliminary environmental license (LP) and installation license (LI) already obtained.

Estimated nominal capacity of 3.0 Mtpy.

---

(1) as of December 2011

(2) Expected capex is relative to Vale's stake in the projects.

- **DEBT INDICATORS**

Total debt was US\$ 23.143 billion as of December 31, 2011, with a long average maturity of 9.8 years, leading to the minimization of refinancing risks. Consistent with the focus on cost of capital minimization, we continued to reduce the average cost of debt, reaching 4.77% per annum in 4Q11.

Net debt(c) rose to US\$ 19.612 billion from US\$ 15.424 billion in 3Q11, mainly due to the decline in cash holdings to US\$ 3.531 billion on December 31, 2011, from US\$ 7.565 billion on September 30, 2011. This was due to expenditures in 4Q11 with dividend distribution, the buy-back program of our shares, the acquisition of shares of Vale Fertilizantes and the acceleration of capex. Our liquidity cushion is complemented by bank revolving credit lines of US\$ 4.1 billion.

Debt leverage, as measured by total debt/LTM adjusted EBITDA(d) ratio, was 0.66x on December 31, 2011, in line with the 0.63x on September 30, 2011, and lower than the 1.0x on December 31, 2010. Total debt/enterprise value(e) was 17.4% on December 31, 2011, versus 17.2% on September 30, 2011 and 13.2% on December 31, 2010.

Interest coverage, measured by the LTM adjusted EBITDA/LTM interest payment ratio(f), increased to 30.9x on December 31, 2011, compared to 29.2x on September 30, 2011 and 23.8x on December 31, 2010.



Table of Contents

Considering hedge positions, total debt on December 31, 2011 was composed of 24% of floating interest rates and 76% of fixed interest rates linked debt, while 96% was denominated in US dollars and the remaining in other currencies.

In November 2011, Vale had its credit risk upgraded by Standard & Poor's (S&P) to A- from BBB+. On the S&P credit risk rating scale, an A rating indicates strong capacity to meet financial commitments. The upgrade reflects our permanent focus on minimizing our cost of capital. This goal is particularly important given the capital intensiveness of the mining industry, which requires an investment of significant amount of funds to finance investments.

In January 2012, we issued US\$ 1 billion of a 10-year note due in 2022 with coupon rate of 4.375% per year, payable semi-annually. The notes were priced with a spread of 255 basis points over U.S. Treasuries, resulting in a yield to maturity of 4.525%.

**Table 9 - DEBT INDICATORS**

US\$ million	4Q10	3Q11	4Q11
Total debt	25,343	22,989	23,143
Net debt	15,966	15,424	19,612
Total debt / adjusted LTM EBITDA (x)	1.0	0.6	0.7
Adjusted LTM EBITDA / LTM interest expenses (x)	23.8	29.2	30.9
Total debt / EV (%)	13.2	17.2	17.4

**PERFORMANCE OF THE BUSINESS SEGMENTS**

- **Bulk materials**
  
- ***Ferrous minerals***

In 2011, iron ore and pellets sales reached the highest level in Vale's history, totaling 299.148 Mt, exceeding our previous record of 296.375 Mt in 2007 and the 294.414 Mt sold in 2010.

Shipments of iron ore totaled 257.287 Mt in 2011, showing a slight increase from 254.902 Mt in 2010. Pellet shipments set a new record of 41.861 Mt in 2011, 5.9% higher than the prior record of 39.512 Mt in 2010.

## Edgar Filing: Vale S.A. - Form 6-K

Reflecting the economic downturn in Europe, our iron ore and pellets sales to European clients fell to 56.508 Mt in 2011 from 60.877 Mt last year. The weakness in demand was felt more markedly in 4Q11, when shipments declined 24.7% year-on-year and 15.6% quarter-on-quarter. At 12.949 Mt, our shipments to Europe were only slightly higher than in 4Q08, 12.756 Mt, in the trough of the Great Recession of 2008/2009.

However, we were able to more than offset the demand contraction in Europe, establishing a record mark for 4Q, through increased sales to Asia, the Middle East and other regions.

In 4Q11, sales of iron ore and pellets amounted to 80.746 Mt, with an increase of 4.3% compared to 3Q11, reaching a new 4Q record in Vale's history. Sales volumes were higher than production in 4Q11, which is explained by the sale of the inventories built up in 3Q11. Shipments of iron ore totaled 69.890 Mt, 4.3% higher than 3Q11. Pellet shipments were 10.856 Mt, 3.9% higher than the previous quarter.

The average realized price of iron ore was US\$ 121.38 per metric ton in 4Q11, 19.8% lower than 3Q11, and the average pellet price was US\$ 182.39 per metric ton, 11.4% lower than the latest quarter.

As previously mentioned, our iron ore and pellet sales are being priced for clients according to a diversified menu of pricing options, all of them referred to spot market prices. Each client had the option to stay with 3-month moving average prices with a one-month lag, or to move to other more contemporaneous pricing

Table of Contents

options, such as the 3-month current quarter average, that involves provisional pricing and adjustment once the effective sales price is known. The move towards increased price flexibility brings more efficiency and enables us to better serve clients with different preferences.

China's participation in the sales of iron ore and pellets continued to increase, reaching 47.1% in 4Q11 from 45.3% in 3Q11, while the recession in Europe impacted sales to the region, which decreased its share to 16.0% from 19.8%. Our sales share to Brazilian steelmakers and pig iron producers was reduced to 11.0% from 13.0%. Although sales volumes to Japan increased, its participation decreased slightly to 11.2% from 11.5% in the previous quarter.

For the year, China's share in our sales grew to 44.1% in 2011 from 42.9% in 2010, while European market participation dropped to 18.9% from 20.7%. Brazil's share remained relatively stable, at 13.4%, as against 13.7% in the previous year, while Japan increased its share, to 11.0% from 10.5%.

It is important to highlight that reported revenues for iron ore and pellets are net of the costs of maritime freight, meaning that prices of cost and freight (CFR) sales are comparable to average FOB prices. In 4Q11, Vale sold 33.3 Mt of iron ore and pellets on a CFR basis, against 22.4 Mt in 3Q11. In 2011, Vale sold 89.9 Mt on a CFR basis versus 81.9 Mt in 2010.

In 2011, shipments of manganese ore reached 1.032 Mt, 7.8% lower than the 1.119 Mt in 2010, and ferroalloys came to 386,000 metric tons, 3.7% below the 401,000 metric tons in 2010. Both manganese ore and ferroalloys revenues decreased. Manganese dropped to US\$ 171 million from US\$ 258 million in 2010 and ferroalloys to US\$ 557 million from US\$ 621 million last year.

In 4Q11, sales volumes of manganese ore decreased to 177,000 metric tons, 50.3% lower than 3Q11, and revenues were US\$ 32 million, 30.4% lower than the previous quarter, with an average realized price of US\$ 180.79 per metric ton. Sales volumes of ferroalloys were 78,000 metric tons in 4Q11, 22.8% below the previous quarter, and sales revenues were US\$ 115 million, 17.3% lower than 3Q11, with an average realized price of US\$ 1,474.36 per metric ton.

Revenues from ferrous minerals products (iron ore, pellets, manganese and ferroalloys) reached a record of US\$ 43.890 billion in 2011, 30.2% higher than the previous record of US\$ 33.708 billion in 2010. In 4Q11, sales of ferrous minerals totaled US\$ 10.620 billion, 14.9% lower than 3Q11.

The adjusted EBIT margin for the ferrous minerals business was 60.5% in 4Q11, lower than 68.3% in 3Q11, mainly due to lower sales prices. In 2011, the operational margin rose to 66.1%, from 64.3% in 2010.

In 4Q11, adjusted EBITDA for the ferrous minerals operations was US\$ 7.154 billion, 22.0% lower than the US\$ 9.173 billion in the previous quarter. The decrease of US\$ 2.019 billion was mainly due to the impact on our cash flow of lower sales prices (US\$ 2.259 billion) and higher SG&A (US\$ 241 million), which were partly offset by higher sales volumes (US\$ 297 million) and the positive effect of exchange rate variations (US\$ 214 million).

In 2011, adjusted EBITDA achieved a new record figure of US\$ 31.630 billion, 31.9% above the previous all-time high of US\$ 23.974 billion in 2010.

Table of Contents**Table 10 - FERROUS MINERALS BUSINESS PERFORMANCE****VOLUME SOLD BY DESTINATION IRON ORE AND PELLETS**

000 metric tons	4Q10	3Q11	4Q11	2010	%	2011	%
<b>Americas</b>	<b>11,759</b>	<b>12,069</b>	<b>10,646</b>	<b>46,103</b>	<b>15.7</b>	<b>47,056</b>	<b>15.7</b>
Brazil	9,987	10,063	8,856	40,249	13.7	40,212	13.4
Steel mills and pig iron producers	8,930	8,880	7,947	36,003	12.2	35,741	11.9
JVs pellets	1,057	1,183	909	4,247	1.4	4,471	1.5
USA	233	303	268	459	0.2	571	0.2
Others	1,539	1,703	1,522	5,395	1.8	6,273	2.1
<b>Asia</b>	<b>48,690</b>	<b>48,055</b>	<b>54,077</b>	<b>178,702</b>	<b>60.7</b>	<b>186,523</b>	<b>62.4</b>
China	35,417	35,114	38,023	126,400	42.9	131,870	44.1
Japan	7,682	8,899	9,011	30,802	10.5	32,991	11.0
South Korea	4,455	3,616	5,044	13,971	4.7	15,187	5.1
Others	1,136	426	1,999	7,529	2.6	6,474	2.2
<b>Europe</b>	<b>17,202</b>	<b>15,339</b>	<b>12,949</b>	<b>60,877</b>	<b>20.7</b>	<b>56,508</b>	<b>18.9</b>
Germany	5,845	6,049	5,017	22,382	7.6	22,213	7.4
United Kingdom	1,131	910	1,091	7,208	2.4	3,653	1.2
France	3,109	1,329	1,385	5,903	2.0	5,333	1.8
Italy	2,121	2,869	2,715	8,366	2.8	11,399	3.8
Turkey	510	856	509	2,933	1.0	2,702	0.9
Spain	660	696	419	2,708	0.9	2,643	0.9
Netherlands	940	1,021	847	1,529	0.5	3,983	1.3
Others	2,885	1,609	967	9,847	3.3	4,582	1.5
<b>Middle East</b>	<b>1,235</b>	<b>1,085</b>	<b>1,925</b>	<b>4,663</b>	<b>1.6</b>	<b>5,258</b>	<b>1.8</b>
<b>Rest of the World</b>	<b>1,656</b>	<b>905</b>	<b>1,149</b>	<b>4,070</b>	<b>1.4</b>	<b>3,803</b>	<b>1.3</b>
<b>Total</b>	<b>80,542</b>	<b>77,453</b>	<b>80,746</b>	<b>294,414</b>	<b>100.0</b>	<b>299,148</b>	<b>100.0</b>

**OPERATING REVENUE BY PRODUCT**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Iron ore	8,476	10,136	8,483	26,383	35,008
Pellet plant operation services	10	9	10	30	38
Pellets	1,918	2,149	1,980	6,373	8,112
Manganese ore	44	46	32	258	171
Ferroalloys	170	139	115	621	557
Others	16			43	4
<b>Total</b>	<b>10,634</b>	<b>12,479</b>	<b>10,620</b>	<b>33,708</b>	<b>43,890</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	4Q10	3Q11	4Q11	2010	2011
Iron ore	121.34	151.26	121.38	103.50	136.07
Pellets	179.53	205.79	182.39	161.29	193.79
Manganese ore	125.00	129.21	180.79	230.22	165.70

Edgar Filing: Vale S.A. - Form 6-K

Ferroalloys	1,559.63	1,376.24	1,474.36	1,547.84	1,443.01
-------------	----------	----------	----------	----------	----------

**VOLUME SOLD**

<b>000 metric tons</b>	<b>4Q10</b>	<b>3Q11</b>	<b>4Q11</b>	<b>2010</b>	<b>2011</b>
Iron ore	69,860	67,008	69,890	254,902	257,287
Pellets	10,681	10,445	10,856	39,512	41,861
Manganese ore	352	356	177	1,119	1,032
Ferroalloys	109	101	78	401	386

- Coal*

In 2011, revenues from sales of coal products reached US\$ 1.058 billion, an all-time high figure, being 37.5% higher than our previous record of US\$ 770 million in 2010.

Total volume sold reached 7.672 Mt from 7.384 Mt in 2010, an increase of 3.9%, mainly due to the higher volumes of thermal coal (26%) that more than offset the drop in metallurgical coal volumes. In 2011, thermal coal represented 70% of the volumes sold and metallurgical coal 30%.

Production and sales of metallurgical coal suffered a significant impact from the heavy rain and flooding in the state of Queensland, Australia, at the end of 2010, where more than 60% of our metallurgical coal is sourced. On the other hand, the ramp up of El Hatillo boosted the volumes of thermal coal in 2011.

Table of Contents

In 4Q11, coal products sales reached a record of US\$ 363 million, showing an increase of 27.4% over the US\$ 285 million in 3Q11. Revenues from thermal coal shipments were US\$ 181 million and metallurgical coal sales were US\$ 182 million. The first phase of the Moatize coal project, in Tete, Mozambique, is ramping up production and contributed to increase the revenues in this quarter.

Total coal shipments increased to 2.625 Mt in 4Q11, of which 1.796 Mt of thermal coal shipments vs. 1.263 Mt in 3Q11 and 829,000 metric tons of metallurgical coal vs. 569,000 metric tons in 3Q11.

The average sale price of metallurgical coal in 4Q11 was US\$ 220.27 per metric ton, 22.0% lower than in 3Q11. For thermal coal, the average sale price was US\$ 110.71 per metric ton, 12.6% above the US\$ 98.28 per metric ton in the previous quarter.

Adjusted EBITDA for the coal business in 4Q11 was a negative US\$ 110 million, compared with negative US\$ 14 million in 3Q11. The main reason for the decrease was the effect of higher SG&A expenses of US\$ 124 million, mainly due to the recognition of contingencies related to our coal operations in Australia. In addition, the impact of higher COGS (US\$ 61 million) and lower sales prices (US\$ 45 million) contributed to a lower adjusted EBITDA, which were partly offset by the positive impact of higher volumes sold amounting to US\$ 128 million.

**Table 11 - COAL BUSINESS PERFORMANCE**

**OPERATING REVENUE BY PRODUCT**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Thermal coal	51	124	181	298	510
Metallurgical coal	191	161	182	472	548
<b>Total</b>	<b>241</b>	<b>285</b>	<b>363</b>	<b>770</b>	<b>1,058</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	4Q10	3Q11	4Q11	2010	2011
Thermal coal	63.96	98.28	100.71	70.40	95.54
Metallurgical coal	172.33	282.54	220.27	149.96	235.27

**VOLUME SOLD**

000 metric tons	4Q10	3Q11	4Q11	2010	2011
Thermal coal	793	1,263	1,796	4,234	5,342
Metallurgical coal	1,106	569	829	3,150	2,330

Table 12 - BULK MATERIALS: SELECTED FINANCIAL INDICATORS

US\$ million	4Q10	3Q11	4Q11	2010	2011
<b>Adjusted EBIT margin (%)</b>					
<b>Bulk materials</b>					
Ferrous minerals	65.8	68.3	60.5	64.3	66.1
Coal	(25.7)	(27.0)	(61.4)	(21.9)	(45.7)
<b>Adjusted EBITDA</b>					
<b>Bulk materials</b>	<b>7,966</b>	<b>9,159</b>	<b>7,044</b>	<b>23,995</b>	<b>31,462</b>
Ferrous minerals	7,981	9,173	7,154	23,974	31,630
Coal	(15)	(14)	(110)	21	(168)

- **Base metals**

Revenues from shipments of base metals and their by-products reached US\$ 9.628 billion in 2011, up 17.4% from US\$ 8.200 billion last year. Increases in sales volumes and prices contributed to increases with US\$ 810 million and US\$ 573 million, respectively.

The volume of finished nickel shipments was 252,000 t, the best performance since 2008, when they peaked at 276,000 t.



Table of Contents

Nickel revenues were US\$ 1.265 billion in 4Q11, versus US\$ 1.437 billion in 3Q11. The decrease of 12.0%, was due to lower prices, US\$ 193 million, which was partially offset by higher sales volumes, US\$ 21 million. Sales volumes in 4Q11 were 69,000 t, against 68,000 t in 3Q11. The average nickel price in 4Q11 was US\$ 18,333 per metric ton, compared to US\$ 21,132 in 3Q11.

In 2011, copper revenues reached a new record of US\$ 2.547 billion, 25.5% above the previous record of US\$ 2.029 billion in 2008 and 58.4% higher than 2010. The sharp rise in revenues reflects the resumption of industrial action. In 4Q11, copper revenues also reached a new quarterly record of US\$ 874 million, up 16.1% compared to the previous record of US\$ 753 million in 4Q10. Shipments increased to 113,000 metric tons in 4Q11, from 80,000 metric tons in 3Q11. In 4Q11, the average copper price was US\$ 7,712 per metric ton, down from US\$ 8,044 in 3Q11.

In 2011, PGM revenues amounted to US\$ 494 million, an all-time high figure, almost four times revenues in 2010 and higher than the previous record in 2008, US\$ 401 million. PGM sales shot up 360.6% year-on-year. Higher volumes are also explained by the resumption of industrial action. The average platinum price increased 3.3% year-on-year to US\$ 1,717 per troy ounce.

In 4Q11, sales of PGMs (platinum group metals) produced revenues of US\$ 87 million, compared to US\$ 81 million in 3Q11, influenced by the increase in volume sold, 110,000 troy ounces in 4Q11 against 70,000 troy ounces in 3Q11. Higher volumes reflect the resumption of operation of furnace #2 of the Copper Cliff smelter, which remained shut down during most of 2Q11. The average platinum price in 4Q11, of US\$ 1,490 per troy ounce, fell 15.6% relative to the previous quarter.

The adjusted EBIT margin of base metals in 4Q11 narrowed to 3.1% from 7.9% in 3Q11. The effects of higher revenues were more than offset by depreciation charges and pre-operating expenses at VNC (US\$ 136 million) and Onça Puma (US\$ 97 million). The adjusted EBIT margin of base metals increased to 13.5% in 2011, from 8.0% in 2010.

Adjusted EBITDA reached US\$ 700 million in 4Q11, up 6.1% from US\$ 660 million in 3Q11. The increase was mainly due to higher sales volumes (US\$ 210 million) and lower COGS (US\$ 112 million), where a reduction of US\$ 100 million was due to lower purchased volumes of nickel products from third parties. The positive effects were partly offset by the decrease in prices (US\$ 218 million) and the increase in SG&A expenses (US\$ 108 million).

In 2011, adjusted EBITDA totaled US\$ 4.842 billion, more than twice the 2010 figure, at US\$ 2.294 billion. After excluding non-recurring gains arising from the sale of aluminum assets in 1Q11, adjusted EBITDA was US\$ 3.329 billion in 2011.

**Table 13 - BASE METALS BUSINESS PERFORMANCE**

**OPERATING REVENUE BY PRODUCT**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Nickel	1,437	1,437	1,265	3,835	5,720

Edgar Filing: Vale S.A. - Form 6-K

Copper	753	646	874	1,608	2,547
PGMs	77	81	87	101	493
Precious metals	45	99	114	72	391
Cobalt	16	29	23	30	94
Aluminum	296			1,019	141
Alumina	385			1,507	236
Bauxite	10			28	6
<b>Total</b>	<b>3,019</b>	<b>2,292</b>	<b>2,363</b>	<b>8,200</b>	<b>9,628</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	4Q10	3Q11	4Q11	2010	2011
Nickel	22,955.39	21,132.35	18,333.33	21,980.19	22,680.41
Copper	9,134.36	8,043.63	7,711.71	7,730.09	8,420.73
Platinum (US\$/oz)	1,674.12	1,765.57	1,489.93	1,661.20	1,716.81
Cobalt (US\$/lb)	16.49	18.71	12.96	15.09	15.63

Table of Contents**VOLUME SOLD**

<b>000 metric tons</b>	<b>4Q10</b>	<b>3Q11</b>	<b>4Q11</b>	<b>2010</b>	<b>2011</b>
Nickel	63	68	69	174	252
Copper	82	80	113	208	302
Precious metals (oz)	468	728	776	919	2,824
PGMs (oz)	70	70	110	97	446
Cobalt (metric ton)	440	703	805	902	2,721
Aluminum	130			453	57
Alumina	1,303			5,314	755
Bauxite	296			885	188

**SELECTED FINANCIAL INDICATORS**

<b>US\$ million</b>	<b>4Q10</b>	<b>3Q11</b>	<b>4Q11</b>	<b>2010</b>	<b>2011</b>
Adjusted EBIT margin (%)	12.6	7.9	3.1	8.0	13.5
Adjusted EBITDA	978	660	700	2,294	4,842

- Fertilizer nutrients**

The Brazilian market for fertilizers, one of the largest in the world, increased significantly in 2011. Sales of fertilizers nutrients to end consumers grew by 15.0% and imports by 29.8% over 2010.

Sales revenues of fertilizer nutrients totaled US\$ 3.547 billion in 2011, compared with US\$ 1.846 billion in 2010. The phosphates and nitrogen products were accounted for the first full year after the acquisition of the Brazilian fertilizer assets last year. The numbers reported for 2010 reflect the financial performance from May to December 2010.

In 4Q11, our revenues were US\$ 856 million, decreasing 17.5% from US\$ 1.037 billion in 3Q11, mainly explained by the fertilizers business seasonality, the higher demand in 3Q11 due to the Brazilian crop season.

Potash produced revenues of US\$ 77 million in 4Q11, slightly lower than the US\$ 80 million in the previous quarter. The main reason for the decrease in revenues was a lower sales volume, which declined to 144,000 metric tons in 4Q11 from 152,000 metric tons in 3Q11. That was partly minimized by the increase of the average sales price to US\$ 534.72 per metric ton from US\$ 526.32 in 3Q11. In 2011, revenues from potash sales totaled US\$ 287 million, 2.5% higher than 2010.

Revenues from sales of phosphates were US\$ 563 million in 4Q11, 21.0% lower than 3Q11. Total shipments of MAP were 294,000 t, TSP 111,000 t, SSP 458,000 t, DCP 128,000 t and phosphate rock 754,000 t.

## Edgar Filing: Vale S.A. - Form 6-K

Sales of nitrogen fertilizers were US\$ 199 million, decreasing 7.9% from the US\$ 216 million in 3Q11. Sales of other related products totaled US\$ 17 million in 4Q11.

The EBIT margin of the fertilizer nutrients business increased to 10.2% in 4Q11, from 8.0% in the previous quarter.

Adjusted EBITDA for the fertilizers business was US\$ 203 million in 4Q11, 15.1% lower than in 3Q11. The main factors for the decrease were lower sales volumes (US\$ 68 million), lower sales prices (US\$ 45 million) and higher SG&A expenses (US\$ 14 million), which were partly mitigated by the positive effect of exchange rates (US\$ 61 million) and lower COGS (US\$ 30 million). In 2011, adjusted EBITDA totaled US\$ 794 million.

Table of Contents**Table 14 - FERTILIZER NUTRIENTS BUSINESS PERFORMANCE****OPERATING REVENUE BY PRODUCT**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Potash	74	80	77	280	287
Phosphates	512	713	563	1,211	2,395
Nitrogen	178	216	199	337	782
Others	5	28	17	18	83
<b>Total</b>	<b>769</b>	<b>1,037</b>	<b>856</b>	<b>1,846</b>	<b>3,547</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	4Q10	3Q11	4Q11	2010	2011
Potash	425.29	526.32	534.72	410.56	505.28
Phosphates					
MAP	651.36	710.70	664.45	565.34	679.65
TSP	633.90	602.66	531.61	451.80	585.98
SSP	230.76	299.34	275.74	221.36	281.53
DCP	582.54	731.32	638.51	570.49	679.63
Nitrogen	547.91	645.51	654.25	450.86	612.01

**VOLUME SOLD**

'000 metric tons	4Q10	3Q11	4Q11	2010	2011
Potash	174	152	144	682	568
Phosphates					
MAP	305	245	294	703	907
TSP	113	184	111	461	594
SSP	547	774	458	1,533	2,501
DCP	114	133	128	284	556
Nitrogen	325	335	304	747	1,278

**SELECTED FINANCIAL INDICATORS**

	4Q10	3Q11	4Q11	2010	2011
Adjusted EBIT margin (%)	(11.0)	8.0	10.2	(5.5)	7.0
Adjusted EBITDA	86	239	203	176	794

- **Logistics services**

Revenues from logistics services to clients were US\$ 1.726 billion, 18.2% greater than in 2010.

Due to the seasonality in demand, revenues in 4Q11 were below the previous quarter, at US\$ 420 million against US\$ 502 million. Revenues from rail transportation of general cargo were US\$ 300 million, US\$ 58 million lower than 3Q11.

Vale railroads Carajás (EFC), Vitória a Minas (EFVM), Norte-Sul (FNS) and Centro-Atlântica (FCA) transported 5.192 billion ntk(5) of general cargo for clients in 4Q11, compared to 6.657 billion ntk in 3Q11.

The main cargoes carried by our railroads in 4Q11 were agricultural products (42.5%), steel industry inputs and products (35.4%), building materials and forestry products (13.7%), fuels (8.1%) and others (0.3%).

Port services revenues reached US\$ 120 million in 4Q11, totaling US\$ 461 million in 2011. Our ports and maritime terminals handled 6.811 Mt of general cargo, lower than the 7.755 Mt handled in 3Q11. The demand for transportation of general cargo is usually weaker in the fourth quarter due to the end of the crop season in Brazil. Railroad transportation volumes fell by 22.0% on a quarter-on-quarter basis, whereas the amount of cargo handled by our maritime terminals dropped by 12.2%.

---

(5) Ntk=net ton kilometer

Table of Contents

In 2011, Vale's railroads carried 23.248 billion ntk, decreasing 8.0% against 2010, and maritime terminals handled 25.922 Mt, compared to 23.319 Mt in the previous year, an increase of 11.2% year-on-year. The drop in general cargo transportation was due to an inventory build-up of steel industry inputs and products. The increase of the volume handled at our ports and maritime terminals was related to higher metallurgical coal imports by Brazilian steelmakers.

In 4Q11, the adjusted EBIT margin was negative 17.2%, down from a positive 1.4% in 3Q11, mainly due to lower sales volumes and prices.

Adjusted EBITDA for the logistics business was US\$ 34 million in 4Q11, 68.2% lower than the previous quarter, mainly due to higher SG&A (US\$ 41 million), lower transported volumes (US\$ 28 million), lower prices (US\$ 20 million) and higher COGS (US\$ 14 million) which were partly offset by the positive impact of exchange rate variations (US\$ 30 million). In 2011, adjusted EBITDA totaled US\$ 259 million.

**Table 15 - LOGISTICS BUSINESS PERFORMANCE**

**OPERATING REVENUE BY PRODUCT**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Railroads	262	358	300	1,107	1,265
Ports	73	144	120	353	461
Total	335	502	420	1,460	1,726

**VOLUME SOLD**

000 metric tons	4Q10	3Q11	4Q11	2010	2011
Railroads (million ntk)	5,790	6,657	5,192	25,283	23,248

**SELECTED FINANCIAL INDICATORS**

	4Q10	3Q11	4Q11	2010	2011
Adjusted EBIT margin (%)	(5.2)	1.4	(17.2)	10.0	(6.3)
Adjusted EBITDA	56	107	34	345	259

• **FINANCIAL INDICATORS OF NON-CONSOLIDATED COMPANIES**

For selected financial indicators of the main non-consolidated companies, see our quarterly financial statements on [www.vale.com/ Investors/ Financial Performance / SEC Reports](http://www.vale.com/Investors/Financial%20Performance/SEC%20Reports).

- **CONFERENCE CALL AND WEBCAST**

On February 16, 2012, Vale will hold a conference call and webcast in Portuguese, at 10:00 a.m. Rio de Janeiro time, 7:00 a.m. US Eastern Standard Time, 1:00 p.m. British Standard Time, 2:00 p.m. Paris Time, 8:00 p.m. Hong Kong Time. Vale will also hold another conference call and webcast in English, at 12:00 p.m. Rio de Janeiro time, 9:00 a.m. US Eastern Standard Time, 3:00 p.m. British Standard Time, 4:00 p.m. Paris Time, 10:00 p.m. Hong Kong Time. To connect the webcast, please dial:

Participants from Brazil: (55 11) 4688-6341

Participants from USA: (1-800) 860-2442

Participants from other countries: (1-412) 858-4600

Access code: VALE

Instructions for participation will be available on the website [www.vale.com/Investors](http://www.vale.com/Investors). A recording will be available on Vale's website for 90 days as from February 16, 2012.



Table of Contents**IFRS RECONCILIATION WITH USGAAP**

Since December 2010, the convergence of the full year financial statements was completed and therefore IFRS is now the accounting standard adopted in Brazil. During the intermediate periods of 2010, we already adopted all pronouncements issued by the Brazilian Accounting Practice Committee (CPC) which are in conformity with the IFRS.

The net income reconciliation between the net income according to Brazilian rules (in conformity with the IFRS) and USGAAP is as follows:

**NET INCOME RECONCILIATION**

US\$ million	4Q11	2011
<b>Net income CPC / IFRS</b>	<b>4,659</b>	<b>22,788</b>
Depletion of assets on business acquired	(42)	(178)
Income tax	(10)	(11)
Pension plan	63	262
Results on sales of assets	0	19
Other adjustments	2	5
<b>Net income US GAAP</b>	<b>4,672</b>	<b>22,885</b>

**Depletion of assets on business acquired:** Refers to additional depletion of the adjustments to fair value of property, plant and equipment on business acquired before the new rules issued by CPC in respect of business combinations. This difference will cease by the end of the useful life of these assets.

**Pension Plan:** This adjustment reflects the return on the overfunded plans, which under IFRS recognition is more restricted.

**Income tax:** Income tax related to the previously described adjustments.

Table of Contents

- ANNEX 1 FINANCIAL STATEMENTS

Table 16 - INCOME STATEMENTS

US\$ million	4Q10	3Q11	4Q11	2010	2011
<b>Gross operating revenues</b>	<b>15,207</b>	<b>16,741</b>	<b>14,755</b>	<b>46,481</b>	<b>60,389</b>
Taxes	(278)	(380)	(328)	(1,188)	(1,399)
<b>Net operating revenue</b>	<b>14,929</b>	<b>16,361</b>	<b>14,427</b>	<b>45,293</b>	<b>58,990</b>
Cost of goods sold	(6,040)	(6,252)	(6,025)	(18,814)	(23,573)
<b>Gross profit</b>	<b>8,889</b>	<b>10,109</b>	<b>8,402</b>	<b>26,479</b>	<b>35,417</b>
Gross margin (%)	59.5	61.8	58.2	58.5	60.0
Selling, general and administrative expenses	(647)	(654)	(827)	(1,701)	(2,334)
Research and development expenses	(301)	(440)	(529)	(878)	(1,674)
Gain from sale of assets					1,513
Others	(774)	(643)	(1,023)	(2,205)	(2,810)
<b>Operating profit</b>	<b>7,167</b>	<b>8,373</b>	<b>6,023</b>	<b>21,695</b>	<b>30,112</b>
Financial revenues	117	188	139	290	718
Financial expenses	(926)	(822)	(547)	(2,646)	(2,465)
Gains (losses) on derivatives, net	473	(568)	46	631	75
Monetary variation	51	(2,191)	(108)	344	(1,641)
Discontinued operations				(143)	
Tax and social contribution (Current)	(1,549)	(1,197)	(1,038)	(4,996)	(5,547)
Tax and social contribution (Deferred)	412	846	(109)	1,291	265
Equity income and provision for losses	303	282	167	987	1,135
Minority shareholding participation	(131)	24	99	(189)	233
<b>Net earnings</b>	<b>5,917</b>	<b>4,935</b>	<b>4,672</b>	<b>17,264</b>	<b>22,885</b>
<b>Earnings per share (US\$)</b>	<b>1.13</b>	<b>0.95</b>	<b>0.91</b>	<b>3.29</b>	<b>4.42</b>
<b>Diluted earnings per share (US\$)</b>	<b>1.12</b>	<b>0.94</b>	<b>0.90</b>	<b>3.25</b>	<b>4.36</b>

Table 17 - FINANCIAL RESULTS

US\$ million	4Q10	3Q11	4Q11	2010	2011
Gross interest	(343)	(350)	(374)	(1,186)	(1,388)
Debt with third parties	(343)	(350)	(374)	(1,183)	(1,381)
Debt with related parties				(3)	(7)
Tax and labour contingencies	(22)	(22)	(13)	(161)	(41)
Others	(561)	(450)	(160)	(1,299)	(1,036)
<b>Financial expenses</b>	<b>(926)</b>	<b>(822)</b>	<b>(547)</b>	<b>(2,646)</b>	<b>(2,465)</b>
<b>Financial income</b>	<b>117</b>	<b>188</b>	<b>139</b>	<b>290</b>	<b>718</b>
<b>Derivatives</b>	<b>473</b>	<b>(568)</b>	<b>46</b>	<b>631</b>	<b>75</b>
<b>Exchange and monetary gain (losses), net</b>	<b>51</b>	<b>(2,191)</b>	<b>(108)</b>	<b>344</b>	<b>(1,641)</b>
<b>Financial result, net</b>	<b>(285)</b>	<b>(3,393)</b>	<b>(470)</b>	<b>(1,381)</b>	<b>(3,313)</b>

Table 18 - EQUITY INCOME BY BUSINESS SEGMENT

Edgar Filing: Vale S.A. - Form 6-K

US\$ million	4Q10	3Q11	4Q11	2010	%	2011	%
Ferrous minerals	341	230	230	952	96.5	1,019	89.8
Coal	57	24	14	58	5.9	71	6.3
Base metals	(5)	67	(12)	2	0.2	101	8.9
Logistics	32	32	25	94	9.5	126	11.1
Steel	(76)	(70)	(87)	(73)	(7.4)	(162)	(14.3)
Others	(46)	(1)	(3)	(46)	(4.7)	(20)	(1.8)
<b>Total</b>	<b>303</b>	<b>282</b>	<b>167</b>	<b>987</b>	<b>100.0</b>	<b>1,135</b>	<b>100.0</b>

Table of Contents**Table 19 - BALANCE SHEET**

US\$ million	12/31/2010	9/30/2011	12/31/2011
<b>Assets</b>			
Current	31,791	26,778	21,736
Long-term	8,481	8,972	8,869
Fixed	88,867	93,248	98,123
<b>Total</b>	<b>129,139</b>	<b>128,998</b>	<b>128,728</b>
<b>Liabilities</b>			
Current	17,912	11,974	11,043
Long term	39,498	37,140	38,076
Shareholders' equity	71,729	79,884	79,609
Paid-up capital	25,914	38,222	36,842
Reserves	42,051	38,084	39,939
Non controlling interest	2,830	2,644	1,894
Mandatory convertible notes	934	934	934
<b>Total</b>	<b>129,139</b>	<b>128,998</b>	<b>128,728</b>

Table of Contents**Table 20 - CASH FLOW**

US\$ million	4Q10	3Q11	4Q11	2010	2011
<b>Cash flows from operating activities:</b>					
Net income	6,048	4,911	4,573	17,453	22,652
Adjustments to reconcile net income with cash provided by operating activities:					
Depreciation, depletion and amortization	1,073	1,018	1,168	3,260	4,122
Dividends received	629	240	205	1,161	1,038
Equity in results of affiliates and joint ventures and change in provision for losses on equity investments	(303)	(282)	(167)	(987)	(1,135)
Deferred income taxes	(412)	(846)	109	(1,291)	(265)
Loss on sale of property, plant and equipment	248	17	15	623	223
Gain on sale of investment				143	
Gain on sale of assets					(1,513)
Exchange and monetary losses	(72)	2,218	808	(787)	2,879
Net unrealized derivative losses	532	642	290	594	490
Net interest payable	(43)	78	150	187	194
Others	(27)	(37)	(68)	58	(183)
Decrease (increase) in assets:					
Accounts receivable	(639)	(730)	456	(3,800)	(821)
Inventories	404	(324)	(203)	(425)	(1,343)
Recoverable taxes	(70)	(392)	20	42	(563)
Others	709	(219)	(16)	307	(315)
Increase (decrease) in liabilities:					
Suppliers	(445)	829	(156)	928	1,076
Payroll and related charges	204	212	225	214	285
Income tax	(93)	(2,745)	(185)	1,311	(2,478)
Others	(35)	(379)	288	192	153
<b>Net cash provided by operating activities</b>	<b>7,708</b>	<b>4,211</b>	<b>7,512</b>	<b>19,183</b>	<b>24,496</b>
Cash flows from investing activities:					
Short term investments	(1,793)			1,954	1,793
Loans and advances receivable	(17)	57	(58)	(58)	(178)
Guarantees and deposits	96	(239)	(59)	(94)	(186)
Additions to investments	(36)	(18)	(345)	(87)	(504)
Additions to property, plant and equipment	(4,742)	(3,711)	(6,071)	(12,647)	(16,075)
Proceeds from disposals of investment					1,081
Net cash used to acquire subsidiaries				(6,252)	
<b>Net cash used in investing activities</b>	<b>(6,492)</b>	<b>(3,911)</b>	<b>(6,533)</b>	<b>(17,184)</b>	<b>(14,069)</b>
Cash flows from financing activities:					
Short-term debt, net issuances (repayments)	82	(43)	(15)	101	(96)
Loans	(20)			(1)	18
Long-term debt	891	479	214	4,436	1,564
Repayment of long-term debt	(958)	(769)	(82)	(2,629)	(2,621)
Treasury stock	(1,655)	(2,001)	(1,001)	(1,510)	(3,002)
Transactions of noncontrolling interest			(1,134)	660	(1,134)
Interest attributed to shareholders	(1,750)	(3,000)	(3,000)	(3,000)	(9,000)
Dividends to minority interest	(81)		(40)	(140)	(100)
<b>Net cash used in financing activities</b>	<b>(3,491)</b>	<b>(5,334)</b>	<b>(5,058)</b>	<b>(2,083)</b>	<b>(14,371)</b>
Increase (decrease) in cash and cash equivalents	(2,275)	(5,034)	(4,079)	(84)	(3,944)
Effect of exchange rate changes on cash and cash equivalents	136	(628)	45	375	(109)
Cash and cash equivalents, beginning of period	9,723	13,227	7,565	7,293	7,584

Edgar Filing: Vale S.A. - Form 6-K

<b>Cash and cash equivalents, end of period</b>	<b>7,584</b>	<b>7,565</b>	<b>3,531</b>	<b>7,584</b>	<b>3,531</b>
Cash paid during the period for:					
Interest on short-term debt	(2)		(1)	(5)	(3)
Interest on long-term debt	(314)	(234)	(198)	(1,097)	(1,143)
Income tax	(1,100)	(4,097)	(1,060)	(1,972)	(7,293)
Non-cash transactions					
Interest capitalized	38	54	78	164	234
Income tax paid with credits			(681)		(681)

Table of Contents

- ANNEX 2 VOLUMES SOLD, PRICES, MARGINS AND CASH FLOWS

**Table 21 - VOLUME SOLD - MINERALS AND METALS**

000 metric tons	4Q10	3Q11	4Q11	2010	2011
Iron ore	69,860	67,008	69,890	254,902	257,287
Pellets	10,681	10,445	10,856	39,512	41,861
Manganese ore	352	356	177	1,119	1,032
Ferrous alloys	109	101	78	401	386
Thermal coal	793	1,263	1,796	4,234	5,342
Metallurgical coal	1,106	569	829	3,150	2,330
Nickel	63	68	69	174	252
Copper	82	80	113	208	302
Precious metals (oz)	468	728	776	919	2,824
PGMs (oz)	70	70	110	97	446
Cobalt (metric ton)	440	703	805	902	2,721
Aluminum	130			453	57
Alumina	1,303			5,314	755
Bauxite	296			885	188
Potash	174	152	144	682	568
Phosphates					
MAP	305	245	294	703	907
TSP	113	184	111	461	594
SSP	547	774	458	1,533	2,501
DCP	114	133	128	284	556
Nitrogen	325	335	304	747	1,278
Railroads (million ntk)	5,790	6,657	5,192	25,283	23,248

**Table 22 - AVERAGE SALE PRICES**

US\$/ton	4Q10	3Q11	4Q11	2010	2011
Iron ore	121.34	151.26	121.38	103.50	136.07
Pellets	179.53	205.79	182.39	161.29	193.79
Manganese ore	125.00	129.21	180.79	230.22	165.70
Ferrous alloys	1,559.63	1,376.24	1,474.36	1,547.84	1,443.01
Thermal coal	63.96	98.28	100.71	70.40	95.54
Metallurgical coal	172.33	282.54	220.27	149.96	235.27
Nickel	22,955.39	21,132.35	18,333.33	21,980.19	22,680.41
Copper	9,134.36	8,043.63	7,711.71	7,730.09	8,420.73
Platinum (US\$/oz)	1,674.12	1,765.57	1,489.93	1,661.20	1,716.81
Cobalt (US\$/lb)	16.49	18.71	12.96	15.09	15.63
Potash	425.29	526.32	534.72	410.56	505.28
Phosphates					
MAP	651.36	710.70	664.45	565.34	679.65
TSP	633.90	602.66	531.61	451.80	585.98
SSP	230.76	299.34	275.74	221.36	281.53
DCP	582.54	731.32	638.51	570.49	679.63
Nitrogen	547.91	645.51	654.25	450.86	612.01





Table of Contents**Table 23- OPERATING MARGINS BY SEGMENT (EBIT ADJUSTED MARGIN)**

<i>%</i>	<b>4Q10</b>	<b>3Q11</b>	<b>4Q11</b>	<b>2010</b>	<b>2011</b>
<b>Bulk materials</b>					
Ferrous minerals	65.8	68.3	60.5	64.3	66.1
Coal	(25.7)	(27.0)	(61.4)	(21.9)	(45.7)
<b>Base metals</b>	<b>12.6</b>	<b>7.9</b>	<b>3.1</b>	<b>8.0</b>	<b>13.5</b>
<b>Fertilizer nutrients</b>	<b>(11.0)</b>	<b>8.0</b>	<b>10.2</b>	<b>(5.5)</b>	<b>7.0</b>
<b>Logistics</b>	<b>(5.2)</b>	<b>1.4</b>	<b>(17.2)</b>	<b>10.0</b>	<b>(6.3)</b>
<b>Total</b>	<b>48.0</b>	<b>51.2</b>	<b>41.7</b>	<b>47.9</b>	<b>48.5</b>

Table of Contents• **ANNEX 3 RECONCILIATION OF US GAAP and NON-GAAP INFORMATION****(a) Adjusted EBIT**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Net operating revenues	14,929	16,361	14,427	45,293	58,990
COGS	(6,040)	(6,252)	(6,025)	(18,814)	(23,573)
SG&A	(647)	(654)	(827)	(1,701)	(2,334)
Research and development	(301)	(440)	(529)	(878)	(1,674)
Other operational expenses	(774)	(643)	(1,023)	(2,205)	(2,810)
Gain on sale of assets					1,513
<b>Adjusted EBIT</b>	<b>7,167</b>	<b>8,372</b>	<b>6,023</b>	<b>21,695</b>	<b>30,112</b>

**(b) Adjusted EBITDA**

EBITDA defines profit or loss before interest, tax, depreciation and amortization. Vale uses the term adjusted EBITDA to reflect exclusion, also, of: monetary variations; equity income from the profit or loss of affiliated companies and joint ventures, less the dividends received from them; provisions for losses on investments; adjustments for changes in accounting practices; minority interests; and non-recurrent expenses. However our adjusted EBITDA is not the measure defined as EBITDA under US GAAP, and may possibly not be comparable with indicators with the same name reported by other companies. Adjusted EBITDA should not be considered as a substitute for operational profit or as a better measure of liquidity than operational cash flow, which are calculated in accordance with GAAP. Vale provides its adjusted EBITDA to give additional information about its capacity to pay debt, carry out investments and cover working capital needs. The following table shows the reconciliation between adjusted EBITDA and operational cash flow, in accordance with its statement of changes in financial position:

**RECONCILIATION BETWEEN ADJUSTED EBITDA AND OPERATIONAL CASH FLOW**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Operational cash flow	7,708	4,211	7,512	19,183	24,496
Income tax	1,549	1,197	1,038	4,996	5,547
FX and monetary losses	(76)	(27)	(700)	(140)	(1,256)
Financial expenses	476	1,124	212	1,635	1,496
Net working capital	(35)	3,748	(429)	1,231	4,006
Other	(753)	(622)	(237)	(1,275)	983
<b>Adjusted EBITDA</b>	<b>8,869</b>	<b>9,631</b>	<b>7,396</b>	<b>25,630</b>	<b>35,272</b>

**(c) Net debt****RECONCILIATION BETWEEN Total debt AND NET DEBT**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Total debt	25,343	22,989	23,143	25,343	23,143

Edgar Filing: Vale S.A. - Form 6-K

Cash and cash equivalents	9,377	7,565	3,531	9,377	3,531
Net debt	15,966	15,424	19,612	15,966	19,612

**(d) Total debt / LTM Adjusted EBITDA**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Total debt / LTM Adjusted EBITDA (x)	1.0	0.6	0.7	1.0	0.7
Total debt / LTM operational cash flow (x)	1.3	0.9	0.9	1.3	0.9

**(e) Total debt / Enterprise value**

US\$ million	4Q10	3Q11	4Q11	2010	2011
Total debt / EV (%)	13.18	17.16	17.41	13.18	17.41
Total debt / total assets (%)	19.62	17.82	17.98	19.62	17.98

*Enterprise value = Market capitalization + Net debt*

**(f) LTM Adjusted EBITDA / LTM interest payments**

US\$ million	4Q10	3Q11	4Q11	2010	2011
LTM adjusted EBITDA / LTM interest payments (x)	23.79	29.19	30.86	23.79	30.86
LTM operational profit / LTM interest payments (x)	19.76	24.83	26.34	19.76	26.34

Table of Contents

This press release may include statements that present Vale's expectations about future events or results. All statements, when based upon expectations about the future and not on historical facts, involve various risks and uncertainties. Vale cannot guarantee that such statements will prove correct. These risks and uncertainties include factors related to the following: (a) the countries where we operate, especially Brazil and Canada; (b) the global economy; (c) the capital markets; (d) the mining and metals prices and their dependence on global industrial production, which is cyclical by nature; and (e) global competition in the markets in which Vale operates. To obtain further information on factors that may lead to results different from those forecast by Vale, please consult the reports Vale files with the U.S. Securities and Exchange Commission (SEC), the Brazilian Comissão de Valores Mobiliários (CVM), the French Autorité des Marchés Financiers (AMF), and The Stock Exchange of Hong Kong Limited, and in particular the factors discussed under "Forward-Looking Statements" and "Risk Factors" in Vale's annual report on Form 20-F.

Table of Contents

**Signatures**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 15, 2012

By:

Vale S.A.  
(Registrant)

/s/ Roberto Castello Branco  
Roberto Castello Branco  
Director of Investor Relations