

Vale S.A.  
Form 6-K  
February 28, 2013  
[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 2013**

**Vale S.A.**

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

(Address of principal executive office)

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

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

(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

BM&F BOVESPA: VALE3, VALE5  
NYSE: VALE, VALE.P

HKEx: 6210, 6230

EURONEXT PARIS: VALE3, VALE5

LATIBEX: XVALO, XVALP

**STARTING TO DELIVER THE TURNAROUND**

VALE S PERFORMANCE IN 2012

Rio de Janeiro, February 27, 2013 Vale S.A. (Vale) presents its financial performance for the full year of 2012 and its fourth quarter (4Q12).

2012 was challenging for the global economy, which amid heightened uncertainty expanded for the second consecutive year at below trend pace. One of the consequences of the adverse macroeconomic environment was a generalized decline in minerals and metals prices, with the exception of gold, a precious metal whose price performance is influenced by other drivers. Iron ore prices became much more volatile, particularly showing large downward volatility in the third quarter of the year.

Against this backdrop, our financial performance was negatively impacted. Its main indicators dropped significantly in relation to 2011, a year when Vale achieved its best financial results since its incorporation in 1942. Our underlying earnings(1) reached US\$ 11.2 billion against US\$ 23.2 billion in 2011, and adjusted EBITDA(1) was US\$ 19.1 billion, falling 43.3%, but being the third highest in our history. Almost all of the reduction was caused by the lower prices in 2012, given their negative impact of US\$ 13.8 billion on the adjusted EBITDA.

We distributed dividends to shareholders of US\$ 6.0 billion, the second largest ever made by Vale and the largest among big miners in 2012. Pursuant to our policy, we announced last month a proposal to the Board of Directors to pay a minimum dividend of US\$ 4.0 billion in 2013, still a fair amount.

Even faced with a decrease in cash flow, in addition to the dividend distribution we were able to finance US\$ 17.7 billion of capital and R&D expenditures while maintaining a capital structure and a low-risk debt portfolio consistent with the requirements for the A credit rating.

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

The ramp up of Moatize, Oman I & II and Bayóvar allowed for record output of coal, pellets and phosphate rock. Iron ore production in 4Q12 was the biggest for a fourth quarter, contributing to amplify our exposure to the V-shaped recovery of iron ore prices that has been taking place since mid September 2012.

Our iron ore and pellet shipments reached an all-time high figure of 303.4 million metric tons. In addition to the sales increase, our iron ore marketing strategy based on the utilization of a global distribution network is contributing to capture more value through higher sales prices.

We have begun to deliver on the commitments we made.

Immense progress was achieved in environmental permitting, with more than 100 licenses obtained in Brazil. These will allow for the continuation of our operations on a regular basis and the execution of important projects, such as Carajás Serra Sul S11D, which will mean an increased supply of iron ore at lower costs and higher

---

(1) Excluding the effect of non-cash non-recurring items.

**[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

Marcelo Bonança Correa

Marcio Loures Penna

Samantha Pons

Tel: (5521) 3814-4540

*US GAAP*

*4Q12*

Table of Contents

quality, the best in the world, creating more value and strengthening our undisputed leadership in the global market.

Simultaneously, we have been gradually solving issues related to tax litigations, an important step change, as it eliminates financial risks and frees resources to focus our attention on managing the business.

Two new copper projects commenced operations in 2012: Salobo and Lubambe. Salobo, in Carajás, a copper with gold operation, is a world-class asset, in the first quartile of the industry cost curve. Lubambe, developed through a joint venture, is our first copper mine in the heart of the rich African Copperbelt, the area with the largest growth potential in the world for copper supply expansion.

VNC, our nickel & cobalt project in New Caledonia, is ramping up and proving to be technically feasible. The operation of the second line began this month and within a month we will be able to assess its economic viability.

The successful ramp up of projects will be critical to realize the large upside in the performance of our base metals business, alongside various initiatives being developed to extract maximum value from the existing operations.

The transaction involving the sale of 25% of the gold by-product of Salobo for the life of the mine and 70% of the gold by-product of Sudbury for the next 20 years will generate US\$ 1.9 billion in cash in the very short term. Moreover, we will receive warrants valued at US\$ 100 million and US\$ 400 per ounce of gold will be paid to Vale against delivery to our counterpart during the life of the contract. This unlocks part of the substantial value hidden in our base metals assets, demonstrating our firm commitment and capacity to maximize shareholder value on a sustainable basis.

Discipline in capital allocation, a key factor in shareholder value creation, is reflected in the cut in research & development expenditures: they decreased 12% in relation to 2011 and were 36% less than budgeted for 2012. We are refocusing our R&D effort to invest in opportunities with real potential to significantly reward the resources allocated. This will imply a smaller portfolio of projects in the future, taking advantage of our wealth of high quality mineral resources and using technology as a tool to maximize value and to pursue sustainability.

Innovation is becoming an important driver of competitiveness in the global mining industry. The CORE project was implemented at the Sudbury operations, involving a simpler flowsheet with lower operating costs and higher metal recovery. This year, Long Harbour, in Canada, is coming on stream, with a new technological concept for nickel production. It has an integrated hydrometallurgical flowsheet, which entails lower costs, higher efficiency and elimination of emission of SO<sub>2</sub> and particulates. The use of truckless mining in our future operations at Serra Sul S11D is another major technological change that also reconciles the goals of cost minimization and sustainability.

The divestment program of non-core assets is another component of the greater focus on discipline in capital allocation. It produced US\$ 1.5 billion, and simplifies the asset portfolio and concentrates management attention on what is really important for maximizing value.



Table of Contents

Several measures were adopted to minimize working capital needs to liberate more capital to help finance the execution of our projects, bringing more efficiency to capital management.

Initiatives to produce a lower cost structure, on a permanent basis, are being actively pursued though some time will be needed to show a material difference from the past. We strongly believe that we are on track to deliver and some early progress can already be seen in the SG&A expenses which fell by 4.0% against 2011 and by 30.3% in 4Q12 when compared to 4Q11 and the behavior of materials and outsourced services, two important cost items, that dropped US\$ 251 million in 4Q12 on a quarter-on-quarter basis.

At Vale, passion for people comes first. Health and safety is a key company priority as well as sustainability and support for the communities where we operate. The frequency of accidents remains on a declining trend but we continue to pursue a much safer environment for our employees. In 2012, we invested US\$ 1.0 billion in environmental protection and conservation and US\$ 318 million in social projects, destined to improve quality of life and to provide opportunities for social and economic mobility.

**Table 1 - SELECTED FINANCIAL INDICATORS**

US\$ million	2008	2009	2010	2011	2012
Operating revenues	38,509	23,939	46,481	60,389	46,454
Adjusted EBIT(1)	15,698	6,057	21,695	28,599	14,279
Adjusted EBIT margin(1) (%)	41.9	26.0	47.9	48.5	31.5
Adjusted EBITDA(1)	19,018	9,165	26,116	33,759	19,135
Underlying earnings	13,716	4,885	17,550	23,234	11,236
Underlying earnings per share on a fully diluted basis (US\$ / share)	2.71	0.91	3.30	4.43	2.20
Total debt/ adjusted LTM EBITDA(1) (x)	1.0	2.5	1.0	0.7	1.6
ROIC (%)	33.8	11.6	30.8	36.1	24.4
Capital and R&D expenditures (excluding acquisitions)	10,191	9,013	12,705	17,994	17,729

US\$ million	4Q11	3Q12	4Q12
Operating revenues	14,755	10,963	12,002
Adjusted EBIT(1)	6,023	3,189	2,940
Adjusted EBIT margin(1) (%)	41.7	29.7	25.1
Adjusted EBITDA(1)	7,396	4,280	4,394
Underlying earnings	4,853	2,233	1,933
Capital and R&D expenditures (excluding acquisitions)	6,686	4,289	5,476

(1) Excluding non-recurring and non-cash items

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

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: Companhia Minera Miski Mayo S.A.C., Ferrovia Centro-Atlântica S.A.(FCA), Ferrovia Norte Sul S.A, Mineração Corumbaense Reunida S.A., PT Vale Indonesia Tbk (formerly International Nickel Indonesia Tbk), Sociedad Contractual Minera Tres Valles, Vale Australia Pty Ltd., Vale International Holdings GMBH, Vale Canada Limited (formerly Vale Inco Limited), Vale Fertilizantes S.A., Vale International S.A., Vale Manganês S.A., Vale Mina do Azul S.A., Vale Moçambique S.A., Vale Nouvelle-Calédonie SAS, Vale Oman Pelletizing Company LLC and Vale Shipping Holding PTE Ltd..

Table of Contents

4Q12

## INDEX

<b><u>STARTING TO DELIVER THE TURNAROUND</u></b>	<b>1</b>
<u>Table 1 - SELECTED FINANCIAL INDICATORS</u>	3
<b><u>OPERATING REVENUES</u></b>	<b>5</b>
<u>Table 2 - OPERATING REVENUE BREAKDOWN</u>	6
<u>Table 3 - OPERATING REVENUE BY DESTINATION</u>	7
<b><u>COSTS</u></b>	<b>7</b>
<u>Table 4 - COGS BREAKDOWN</u>	9
<b><u>OPERATING INCOME</u></b>	<b>10</b>
<b><u>NET EARNINGS</u></b>	<b>10</b>
<b><u>CASH GENERATION</u></b>	<b>12</b>
<u>Table 5 - QUARTERLY ADJUSTED EBITDA</u>	12
<u>Table 6 - ADJUSTED EBITDA BY BUSINESS AREA</u>	13
<b><u>INVESTMENTS</u></b>	<b>13</b>
<u>Table 7 - TOTAL INVESTMENT BY CATEGORY</u>	15
<u>Table 8 - TOTAL INVESTMENT BY BUSINESS AREA</u>	16
<b><u>DEBT INDICATORS</u></b>	<b>21</b>
<u>Table 9 - DEBT INDICATORS</u>	21
<b><u>PERFORMANCE OF THE BUSINESS SEGMENTS</u></b>	<b>23</b>
<u>Table 10 - FERROUS MINERALS</u>	25
<u>Table 11 - COAL</u>	28
<u>Table 12 - BULK MATERIALS</u>	28
<u>Table 13 - BASE METALS</u>	30
<u>Table 14 - FERTILIZER NUTRIENTS</u>	31
<u>Table 15 - LOGISTICS SERVICES</u>	32
<b><u>FINANCIAL INDICATORS OF NON-CONSOLIDATED COMPANIES</u></b>	<b>33</b>
<b><u>CONFERENCE CALL AND WEBCAST</u></b>	<b>33</b>
<b><u>BOX - NEW FREIGHT ACCOUNTING PRACTICE</u></b>	<b>26</b>
<b><u>BOX - IFRS RECONCILIATION WITH USGAAP</u></b>	<b>34</b>
<b><u>ANNEX 1 - FINANCIAL STATEMENTS</u></b>	<b>35</b>
<u>Table 16 - INCOME STATEMENTS</u>	35
<u>Table 17 - FINANCIAL RESULT</u>	35
<u>Table 18 - EQUITY INCOME BY BUSINESS SEGMENT</u>	35
<u>Table 19 - BALANCE SHEET</u>	35
<u>Table 20 - CASH FLOW</u>	37
<b><u>ANNEX 2 - VOLUMES SOLD, PRICES, MARGINS AND CASH FLOWS</u></b>	<b>39</b>
<u>Table 21 - VOLUMES SOLD: MINERALS AND METALS</u>	39
<u>Table 22 - AVERAGE SALE PRICES</u>	39
<u>Table 23 - OPERATING MARGINS BY SEGMENT</u>	40
<b><u>ANNEX 3 - RECONCILIATION OF US GAAP and NON-GAAP INFORMATION</u></b>	<b>41</b>

Table of Contents

OPERATING REVENUES

Revenues in 4Q12 reached US\$ 12.002 billion, rising 9.5% over 3Q12. The increase was primarily due to the effect of higher prices, which added US\$ 748 million, driven mostly by iron ore US\$ 738 million while greater sales volumes contributed with US\$ 292 million. On the other hand, lower prices and shipments of pellets sales had a negative impact of US\$ 326 million.

Prices of minerals and metals fell across the board in 2012 affecting our revenues. They totaled US\$ 46.454 billion, 23% less than the previous year. Reduced prices of iron ore, US\$9.927 billion, pellets, US\$ 2.106 billion, and nickel, US\$ 1.144 billion, accounted for 95% of the US\$ 13.935 billion drop in operating revenues.

The share of bulk materials iron ore, pellets, manganese ore, ferroalloys, metallurgical and thermal coal in operating revenues fell to 71.8% from 74.4% in 2011. The share of base metals remained almost constant at 15.4%, slightly below the 15.9% in 2011. Fertilizers continued to expand its share, rising to 8.1% from 5.9% in the previous year. Logistics services contributed with 3.5% of total revenues and other products 1.2%.

Shipments to Asia represented 53.0% of total revenues in 2012, slightly above the 52.8% figure for 2011. The share of the Americas increased to 26.2% in 2012 from 25.2%, due to higher sales in Brazil. Europe continued to lose some ground with 17.5% against 18.9% in the previous year. Revenues from sales to the Middle East were 2.2% and the rest of the world contributed with 1.1% in 2012.

On a country basis, the share of sales to China amounted to 34.0% of total revenues in 2012, Brazil 19.6%, Japan 10.3%, Germany 6.3%, South Korea 4.5% and the United States 2.9%.

Following the trend in demand growth, since 2005 there were significant changes in the geographical destination of our shipments, with Asia gaining ground, to 53.0% from 39.2%, partially offset by the decline of Europe, to 17.5% from 23.1%. On a country basis, the share of sales to China more than doubled, to 34.0% from 16.7% in 2005.

Table of Contents**Table 2 - OPERATING REVENUE BY BUSINESS AREAS**

US\$ million	4Q11	3Q12	4Q12	2011	%	2012	%
<b>Bulk materials</b>	<b>10,983</b>	<b>7,565</b>	<b>8,624</b>	<b>44,948</b>	<b>74.4</b>	<b>33,362</b>	<b>71.8</b>
<b>Ferrous minerals</b>	<b>10,620</b>	<b>7,340</b>	<b>8,422</b>	<b>43,890</b>	<b>72.7</b>	<b>32,270</b>	<b>69.5</b>
Iron ore	8,483	5,541	6,939	35,008	58.0	24,972	53.8
Pellets	1,980	1,687	1,361	8,112	13.4	6,688	14.4
Manganese ore	32	57	72	171	0.3	234	0.5
Ferroalloys	115	55	50	557	0.9	358	0.8
Pellet plant operation services	10			38	0.1	19	
Others				4			
<b>Coal</b>	<b>363</b>	<b>225</b>	<b>202</b>	<b>1,058</b>	<b>1.8</b>	<b>1,092</b>	<b>2.4</b>
Thermal coal	181	21	21	510	0.8	258	0.6
Metallurgical coal	182	204	181	548	0.9	834	1.8
<b>Base metals</b>	<b>2,363</b>	<b>1,766</b>	<b>1,811</b>	<b>9,628</b>	<b>15.9</b>	<b>7,133</b>	<b>15.4</b>
Nickel	1,265	908	1,015	5,720	9.5	4,145	8.9
Copper	874	650	593	2,547	4.2	2,168	4.7
PGMs	87	90	75	493	0.8	383	0.8
Gold	94	83	90	173	0.3	294	0.6
Silver	19	13	14	218	0.4	63	0.1
Cobalt	23	11	11	94	0.2	55	0.1
Others		11	13			24	0.1
<b>Fertilizer nutrients</b>	<b>856</b>	<b>1,095</b>	<b>930</b>	<b>3,547</b>	<b>5.9</b>	<b>3,777</b>	<b>8.1</b>
Potash	77	78	79	287	0.5	308	0.7
Phosphates	563	783	622	2,395	4.0	2,583	5.6
Nitrogen	199	208	208	782	1.3	801	1.7
Others	17	26	21	83	0.1	85	0.2
<b>Logistics services</b>	<b>420</b>	<b>449</b>	<b>384</b>	<b>1,726</b>	<b>2.9</b>	<b>1,644</b>	<b>3.5</b>
Railroads	300	308	268	1,265	2.1	1,135	2.4
Ports	120	141	116	461	0.8	509	1.1
<b>Others</b>	<b>133</b>	<b>88</b>	<b>253</b>	<b>540</b>	<b>0.9</b>	<b>537</b>	<b>1.2</b>
<b>Total</b>	<b>14,755</b>	<b>10,963</b>	<b>12,002</b>	<b>60,389</b>	<b>100.0</b>	<b>46,454</b>	<b>100.0</b>

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

US\$ million	4Q11	3Q12	4Q12	2011	%	2012	%
<b>North America</b>	<b>751</b>	<b>468</b>	<b>547</b>	<b>3,177</b>	<b>5.3</b>	<b>2,378</b>	<b>5.1</b>
USA	341	238	277	1,672	2.8	1,334	2.9
Canada	382	229	256	1,403	2.3	1,015	2.2
Mexico	27		13	103	0.2	29	0.1
<b>South America</b>	<b>2,749</b>	<b>2,518</b>	<b>2,196</b>	<b>12,022</b>	<b>19.9</b>	<b>9,813</b>	<b>21.1</b>
Brazil	2,487	2,350	2,112	10,914	18.1	9,125	19.6
Others	262	168	84	1,107	1.8	688	1.5
<b>Asia</b>	<b>8,151</b>	<b>5,738</b>	<b>6,818</b>	<b>31,858</b>	<b>52.8</b>	<b>24,614</b>	<b>53.0</b>
China	4,614	3,504	4,926	19,571	32.4	15,783	34.0
Japan	2,002	1,223	960	7,238	12.0	4,790	10.3
South Korea	888	518	458	2,643	4.4	2,099	4.5
Taiwan	422	196	177	1,281	2.1	900	1.9
Others	224	297	297	1,125	1.9	1,042	2.2
<b>Europe</b>	<b>2,567</b>	<b>1,973</b>	<b>1,953</b>	<b>11,437</b>	<b>18.9</b>	<b>8,135</b>	<b>17.5</b>
Germany	774	654	869	3,792	6.3	2,933	6.3
France	191	201	202	801	1.3	657	1.4
Netherlands	113	73	109	627	1.0	371	0.8
UK	363	222	243	1,351	2.2	917	2.0
Italy	415	280	210	1,908	3.2	1,302	2.8
Turkey	65	125	48	413	0.7	362	0.8
Spain	93	100	66	467	0.8	381	0.8
Others	552	317	206	2,078	3.4	1,213	2.6
<b>Middle East</b>	<b>299</b>	<b>141</b>	<b>340</b>	<b>1,075</b>	<b>1.8</b>	<b>1,023</b>	<b>2.2</b>
<b>Rest of the World</b>	<b>238</b>	<b>125</b>	<b>148</b>	<b>820</b>	<b>1.4</b>	<b>492</b>	<b>1.1</b>
<b>Total</b>	<b>14,755</b>	<b>10,963</b>	<b>12,002</b>	<b>60,389</b>	<b>100.0</b>	<b>46,454</b>	<b>100.0</b>

## COSTS AND EXPENSES

Cost of goods sold (COGS) was US\$ 6.459 billion, after adjusting for the effects of changes in volumes (US\$ 103 million), currency prices (-US\$ 57 million)(2) and depreciation (US\$ 150 million) up US\$ 142 million when compared to 3Q12. The main source of the cost increase was the rise in maritime freight costs of US\$ 242 million(3), which amounted to US\$ 387 million in 4Q12. Costs of freight reflect the operating costs of our own fleet of vessels.

We are exploiting several options to curb costs, including among others the idling of loss making mines and plants, reassessment of contracts with service suppliers and changes in our procurement model that are expected to gradually deliver material effects. Together with these moves, there will be structural changes associated to new operations, with lower operating costs and demand for sustaining capex.

Materials and outsourced services, the two most important items which accounted for 37.2% of COGS in 2012, were down US\$ 264 million in 4Q12, net of the effects of volume and exchange rate changes, as a first signal of a new trend.

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

The analysis of individual cost items are net of the effects of volumes and exchange rates changes as well as those of extraordinary events, with the exception of personnel costs.

---

(2) COGS currency exposure in 4Q12 was made up as follows: 58% Brazilian reais, 24% US dollar, 14% Canadian dollars, 3% Australian dollars and 1% other currencies.

(3) US\$ 90 million related to previous periods.

Table of Contents

Costs with outsourced services totaled US\$ 1.153 billion 17.8% of COGS against US\$ 1.236 billion in 3Q12, showing a net decrease of US\$ 106 million, mainly due to the impact of lower operational and maintenance services in the iron ore and pellets operations (US\$ 95 million).

Costs with personnel amounted to US\$ 923 million, representing 14.3% of COGS, increased 4.3% against the US\$ 885 million in 3Q12. The two-year collective agreement with our employees in Brazil increased costs by US\$ 30 million, reflecting the 8.0% wage rise in November 2012. The semi-annual bonuses for employees working in remote areas in Brazil (Carajás, Sossego and Onça Puma) were paid during 4Q12 and amounted to US\$ 19 million.

Cost of materials 15.4% of COGS was US\$ 995 million, down 14.5% against 3Q12. There was a net decrease of US\$ 158 million, as a result of a fall of US\$ 91 million in materials dedicated to the iron ore operations and US\$ 46 million for fertilizer operations, as a result of our efforts to cut costs with optimization of maintenance materials during 4Q12.

Costs with energy consumption accounted for 11.6% of COGS, reaching US\$ 749 million, roughly equal to 3Q12. Costs with electricity were US\$ 218 million, slightly higher than 3Q12. The costs with fuel and gas remain unchanged from 3Q12, at US\$ 530 million in 4Q12.

The cost of purchasing products from third parties amounted to US\$ 334 million 5.2% of COGS against US\$ 259 million in 3Q12.

The purchase of iron ore and pellets amounted to US\$ 115 million, against US\$ 136 million in the previous quarter. In 4Q12, we did not buy pellets but only iron ore. The volume of iron ore bought from smaller miners was 2.9 Mt in 4Q12 compared to 2.5 Mt in 3Q12. The effect of higher volumes was partially offset by an 11.1% decrease in price. In 2012 we purchased 9.8 Mt of iron ore against 8.9 Mt in 2011.

The purchase of base metals products decreased to US\$ 70 million from US\$ 91 million in 3Q12 impacted by lower nickel purchases. We bought 1,200 t of finished and intermediary nickel against 3,000 t in 3Q12, which was partially offset by higher copper purchases amounting to 7,300 t from 6,500 t in 3Q12. The costs of other products increased to US\$ 148 million from US\$ 32 million, reflecting larger purchases of energy and fertilizers (SSP and potash).

Costs with shared services decreased to US\$ 73 million in 4Q12, down from US\$ 77 million in the previous quarter.

Other operational costs reached US\$ 1.159 billion against US\$ 829 million in 3Q12. The US\$ 330 million increase was mainly due to higher freight costs (US\$ 242 million) and higher provision for profit sharing for our employees (US\$ 111 million). On the other hand, these effects were partially offset by the decrease of US\$ 80 million with provisions for the State Mineral Resources Tax (TFRM), which amounted to US\$ 65 million in 4Q12, and lower royalties CFEM (US\$ 18 million), totaling US\$ 109 million in 4Q12. Given the growing importance of freight in our costs, from the first quarter of 2013, we will report freight as a separate item.



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

Depreciation and amortization 16.6% of COGS amounted to US\$ 1.074 billion, against US\$ 932 million in 3Q12.

Sales, general and administrative expenses (SG&A) totaled US\$ 577 million in 4Q12, US\$ 58 million above 3Q12. Higher SG&A expenses were driven by an increase in administrative expenses (US\$ 45 million), mainly due to the higher personnel expenses (US\$ 21 million), reflecting the collective agreement with our Brazilian employees in the corporate offices and higher services expenses (US\$ 26 million). Sales expenses were US\$ 59 million, an increase of US\$ 12 million when compared to 3Q12.

For the full year, SG&A expenses decreased 4.0% in relation to 2011, thus interrupting an upward trend.

Table of Contents

In 4Q12, research and development (R&D) expenditures(4), which reflect our investment in creating long-term growth opportunities, totaled US\$ 460 million, higher than the US\$ 360 million in 3Q12.

Other operational expenses increased by US\$ 216 million to US\$ 1.287 billion in 4Q12. In addition to the provision of US\$ 171 million for the payment of ICMS, as part of the agreement with the Brazilian state of Minas Gerais, pre-operating, stoppage and start-up expenses were US\$ 221 million higher, amounting to US\$ 585 million. Moreover, provisions for profit sharing increased by US\$ 112 million totaling US\$ 174 million in 4Q12.

Pre-operating, idle capacity and start-up expenses were US\$ 585 million, including the start-up of VNC (US\$ 158 million), pre-operating expenses at Salobo (US\$ 116 million), and charges to idle capacity of US\$ 90 million associated to the stoppage of the Tubarão I and II and São Luís pelletizing plants. Additionally, inventory adjustments at VNC accounted for US\$ 46 million, against US\$ 52 million in 3Q12.

**Table 4 - COGS AND EXPENSES****COGS**

US\$ million	4Q11	3Q12	4Q12	2011	%	2012	%
<b>Outsourced services</b>	<b>1,044</b>	<b>1,236</b>	<b>1,153</b>	<b>4,244</b>	<b>18.0</b>	<b>4,769</b>	<b>19.6</b>
Cargo freight	293	295	294	1,240	5.3	1,191	4.9
Maintenance of equipment and facilities	214	203	179	790	3.4	792	3.3
Operational Services	194	339	296	877	3.7	1,131	4.7
Others	343	398	385	1,337	5.7	1,656	6.8
<b>Material</b>	<b>887</b>	<b>1,163</b>	<b>995</b>	<b>3,758</b>	<b>15.9</b>	<b>4,263</b>	<b>17.5</b>
Spare parts and maintenance equipment	299	394	301	1,396	5.9	1,417	5.8
Inputs	421	538	514	1,611	6.8	2,018	8.3
Tires and conveyor belts	49	59	59	206	0.9	233	1.0
Others	118	173	121	545	2.3	595	2.4
<b>Energy</b>	<b>756</b>	<b>747</b>	<b>749</b>	<b>3,149</b>	<b>13.4</b>	<b>2,937</b>	<b>12.1</b>
Fuel and gases	536	530	530	2,181	9.3	2,071	8.5
Electric energy	220	217	218	967	4.1	866	3.6
<b>Acquisition of products</b>	<b>563</b>	<b>259</b>	<b>334</b>	<b>2,274</b>	<b>9.6</b>	<b>1,368</b>	<b>5.6</b>
Iron ore and pellets	425	136	115	1,411	6.0	699	2.9
Base metals products	90	91	70	606	2.6	339	1.4
Other products	48	32	148	257	1.1	330	1.4
<b>Personnel</b>	<b>891</b>	<b>885</b>	<b>923</b>	<b>3,138</b>	<b>13.3</b>	<b>3,545</b>	<b>14.6</b>
<b>Depreciation and exhaustion</b>	<b>1,057</b>	<b>932</b>	<b>1,074</b>	<b>3,735</b>	<b>15.8</b>	<b>3,896</b>	<b>16.0</b>
<b>Shared services</b>	<b>97</b>	<b>77</b>	<b>73</b>	<b>399</b>	<b>1.7</b>	<b>303</b>	<b>1.2</b>
<b>Others</b>	<b>731</b>	<b>829</b>	<b>1,159</b>	<b>2,877</b>	<b>12.2</b>	<b>3,211</b>	<b>13.2</b>
<b>Total</b>	<b>6,025</b>	<b>6,128</b>	<b>6,459</b>	<b>23,573</b>	<b>100.0</b>	<b>24,292</b>	<b>100.0</b>

(4) This is an accounting figure. In the investment section of this press release we disclose the amount of US\$ 477 million for research and development, computed in accordance with the financial disbursement in 4Q12.



Table of Contents**SG&A, R&D and other expenses**

US\$ million	4Q11	3Q12	4Q12	2011	%	2012	%
<b>Total administrative</b>	<b>742</b>	<b>472</b>	<b>517</b>	<b>1,998</b>	<b>29.3</b>	<b>1,951</b>	<b>26.5</b>
Personnel	228	195	216	717	10.5	806	10.9
Services	238	118	144	527	7.7	489	6.6
Depreciation	53	64	68	211	3.1	240	3.3
Others	223	95	89	543	8.0	416	5.6
<b>Selling</b>	<b>85</b>	<b>47</b>	<b>59</b>	<b>336</b>	<b>4.9</b>	<b>288</b>	<b>3.9</b>
<b>SG&amp;A</b>	<b>827</b>	<b>519</b>	<b>577</b>	<b>2,334</b>	<b>34.2</b>	<b>2,240</b>	<b>30.4</b>
<b>Research and development</b>	<b>529</b>	<b>360</b>	<b>460</b>	<b>1,674</b>	<b>24.6</b>	<b>1,478</b>	<b>20.1</b>
<b>Pre-operating, stoppage and start up expenses</b>	<b>488</b>	<b>364</b>	<b>585</b>	<b>1,293</b>	<b>19.0</b>	<b>1,592</b>	<b>21.6</b>
<b>Others</b>	<b>535</b>	<b>707</b>	<b>702</b>	<b>1,517</b>	<b>22.2</b>	<b>2,055</b>	<b>27.9</b>
<b>Total(1)</b>	<b>2,379</b>	<b>1,950</b>	<b>2,323</b>	<b>6,818</b>	<b>100.0</b>	<b>7,365</b>	<b>100.0</b>

(1) Does not include gain/loss on sale of assets

**OPERATING INCOME**

Operating income, as measured by adjusted EBIT excluding the effects of non-cash non-recurring items, totaled US\$ 14.279 billion in 2012 compared to US\$ 28.599 billion in 2011, principally as a consequence of lower prices, US\$ 13.828 billion(5).

In 4Q12, adjusted EBIT, excluding the effect of non-cash non-recurring items, was US\$ 2.940 billion, 7.8% lower than the US\$ 3.189 billion in the previous quarter. The reduction of US\$ 249 million in adjusted EBIT was primarily caused by higher COGS and expenses, US\$ 1.144 billion, which was partly offset by higher prices, US\$ 740 million and a higher sales volume of US\$ 205 million.

In 2012, adjusted EBIT margin excluding the effect of non-recurring items was 31.5% against 48.5% in 2011. Adjusted EBIT margin was 25.1% in 4Q12, down from 29.7% in the previous quarter.

**NET EARNINGS**

Underlying earnings were US\$ 11.236 billion, equal to US\$ 2.20 per share on a fully diluted basis, thus decreasing 51.6% from the US\$ 23.234 billion in 2011. In 4Q12, underlying earnings were US\$ 1.933 billion, equal to US\$ 0.38 per share, down from US\$ 2.233 billion in 3Q12.

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

Underlying earnings are net of the accounting effects of non-cash non-recurring items which included for 2012: (i) impairment on assets (US\$ 4.023 billion), (ii) impairment on investments (US\$ 1.641 billion), (iii) losses on asset sales (US\$ 491 million), (iv) mark-to-market of shareholder debentures (US\$ 465 million), (v) foreign exchange and monetary losses (US\$ 1.670 billion), (vi) deferred income tax on impairment (US\$ 1.327 billion) and (vii) reversal of deferred income tax (US\$ 1.236 billion). Impairments and accounting losses on asset sales are highly likely to have been priced into our shares in the past, having already provoked a reduction in the value of Vale's market capitalization.

With the inclusion of these accounting changes, which do not affect our actual financial performance, but are required by the generally accepted accounting rules in the US (US GAAP), our net earnings were US\$ 5.511 billion in 2012.

---

(5) Including the effects of non-cash non-recurring items adjusted EBIT was US\$ 9.223 billion in 2012 and US\$ 30.112 billion in 2011. Using the same methodology, adjusted EBIT was equal to minus US\$ 1.197 billion in 4Q12.

Table of Contents

By the same token, considering these non-cash non-recurring items in accordance with accounting principles, our earnings of US\$ 1.933 billion in 4Q12 become a loss of US\$ 2.647 billion due to: impairment on assets (US\$ 4.023 billion), impairment on investments (US\$ 1.641 billion), losses in asset sales (US\$ 114 million), foreign exchange and monetary losses (US\$ 174 million), deferred income tax on impairment (US\$ 1.327 billion) and mark-to-market of shareholders debentures (US\$ 45 million), as described on table 16 in Annex 1.

**Impairment charges**

	US\$million
<b>Assets</b>	<b>4,023</b>
Onça Puma	2,849
Australian coal assets	1,029
Oil & gas assets	94
Vermelho	51
<b>Investments</b>	<b>1,641</b>
Hydro - 22% stake(6)	975
CSA(7)	583
VSE	83
<b>Total</b>	<b>5,664</b>

Net financial expenses were US\$ 648 million, against US\$ 834 million in 3Q12. Foreign exchange and monetary variations reduced earnings by US\$ 174 million, due to the USD appreciation of 0.9% against the BRL in 4Q12.

Financial revenues were US\$ 74 million, 15.9% lower than the US\$ 88 million in 3Q12. Financial expenses decreased to US\$ 560 million from US\$ 682 million in 3Q12. The mark-to-market of shareholders debentures had a positive non-cash effect of US\$ 45 million, compared to a non-cash charge of US\$ 336 million in the previous quarter.

The net effect of the mark-to-market of the transactions with derivatives was a positive non-cash effect on earnings of US\$ 12 million, against a negative non-cash charge of US\$ 12 million in 3Q12. There was a net positive cash flow impact of US\$ 3 million.

Breakdown of the effect of derivatives:

- Currency and interest rate swaps resulted in a negative non-cash effect of US\$ 29 million. There was a negative impact on cash flow of US\$ 37 million.
- Nickel derivatives produced a positive non-cash charge of US\$ 41 million and a positive cash flow impact of US\$ 38 million.

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

- Derivative transactions related to bunker oil had a positive non-cash effect of US\$ 1 million and a positive cash flow impact of US\$ 1 million.

---

(6) Based on the share price of December 31, 2012, the impairment charge related to Hydro was reduced to US\$ 975 million from the US\$ 1.338 billion previously announced on December 20nd, 2012, a consequence of its performance in 4Q12.

After the end of the lock-up on Hydro's stake by the end of February 2013, the investment is considered as available for sale. In this case, the IFRS accounting practice, which we will adopt starting in 1Q13, is to mark-to-market the investment without affecting the results and registering the changes just in shareholders' equity. Solely when the investment is sold the effects will be seen in our results.

(7) Impairment charge against our 26.87% interest in ThyssenKrupp CSA. The fair value does not take into account the inherent value of our rights as the exclusive supplier of ore to the mill.

Table of Contents

Equity income from affiliated companies was US\$ 85 million, a sharp decrease in relation to the US\$ 154 million in 3Q12. The decline was due to reduced income from bulk materials (US\$ 59 million) and logistics (US\$ 16 million). In 4Q12, most of the equity income came from the non-consolidated affiliates in the bulk materials business with US\$ 137 million Samarco US\$ 121 million and logistics US\$ 26 million. Investments in the steel business and energy partially offset equity income by US\$ 69 million and US\$ 10 million, respectively.

## CASH GENERATION

Excluding non-cash non-recurring items, cash generation, as measured by adjusted EBITDA, totaled US\$ 19.135 billion in 2012, 43.3% lower than the US\$ 33.759 billion in 2011, mainly due to lower sales prices. In 2012, adjusted EBITDA totaled US\$ 14.079 billion.

In 4Q12, adjusted EBITDA, excluding non-cash non-recurring items, was US\$ 4.394 billion, slightly higher than US\$ 4.280 billion in 3Q12, computed on the same basis.

In 4Q12, dividends received from non-consolidated affiliates totaled US\$ 263 million, compared to US\$ 25 million in 3Q12. The two largest contributors were Samarco, US\$ 179 million, and MRS, US\$ 57 million.

Before R&D expenditures, which reduced adjusted EBITDA, the share of bulk materials in cash generation remained constant at 91.4% in 4Q12, while base metals rose to 4.4% from 3.6%. The share of fertilizers was reduced to 3.9% from 4.3% and logistics to 0.2% from 0.7%.

**Adjusted EBITDA reconciliation**

US\$ million	4Q11	3Q12	4Q12	2011	2012
<b>Adjusted EBITDA(1)</b>	<b>7.396</b>	<b>4.280</b>	<b>4.394</b>	<b>33.759</b>	<b>19.135</b>
Impairment on assets			(4.023)		(4.023)
Loss(gain) on sale of assets			(114)	1.513	(491)
CFEM provision		(542)			(542)
<b>Adjusted EBITDA, including non-recurring items</b>	<b>7.396</b>	<b>3.738</b>	<b>257</b>	<b>35.272</b>	<b>14.079</b>

**Table 5 - ADJUSTED EBITDA(1)**

US\$ million	4Q11	3Q12	4Q12	2011	2012
Net operating revenues	14,427	10,725	11,723	58,990	45,395
COGS	(6,025)	(6,128)	(6,459)	(23,573)	(24,292)
SG&A	(827)	(519)	(577)	(2,334)	(2,240)
Research and development	(529)	(360)	(460)	(1,674)	(1,478)



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

Other operational expenses	(1,023)	(529)	(1,287)	(2,810)	(3,106)
Adjusted EBIT(1)	6,023	3,189	2,940	28,599	14,279
<b>Depreciation, amortization &amp; exhaustion</b>	<b>1,168</b>	<b>1,066</b>	<b>1,191</b>	<b>4,122</b>	<b>4,396</b>
Dividends received	205	25	263	1,038	460
Adjusted EBITDA(1)	7,396	4,280	4,394	33,759	19,135

---

(1) Excluding non-recurring effects

Table of Contents**Table 6 - ADJUSTED EBITDA BY BUSINESS AREA(1)**

US\$ million	4Q11	3Q12	4Q12	2011	2012
<b>Bulk materials</b>	<b>7,044</b>	<b>4,309</b>	<b>4,415</b>	<b>31,462</b>	<b>19,059</b>
Ferrous minerals	7,154	4,375	4,587	31,630	19,333
Coal	(110)	(66)	(172)	(168)	(274)
<b>Base metals</b>	<b>700</b>	<b>168</b>	<b>213</b>	<b>3,329</b>	<b>1,052</b>
<b>Fertilizer nutrients</b>	<b>203</b>	<b>201</b>	<b>188</b>	<b>794</b>	<b>741</b>
<b>Logistics</b>	<b>34</b>	<b>35</b>	<b>12</b>	<b>259</b>	<b>53</b>
<b>Others</b>	<b>(585)</b>	<b>(433)</b>	<b>(434)</b>	<b>(2,085)</b>	<b>(1,770)</b>
<b>Total</b>	<b>7,396</b>	<b>4,280</b>	<b>4,394</b>	<b>33,759</b>	<b>19,135</b>

---

(1) Excluding non-recurring effects

## INVESTMENTS

Our priority has shifted from the marginal volume to the capital efficient volume, a move that has had deep implications for the way we manage capital. The prospects of a moderate expansion of the global demand for minerals and metals over the medium-term require a stricter discipline in capital allocation and a stronger focus on maximizing efficiency and minimizing costs.

Vale is developing a more focused set of organic growth initiatives, which translate into a smaller and more selective pipeline comprised of world class assets. For now we are channeling our investments to iron ore projects coming on stream in 2013-2016, our highest return business, divesting non-core assets and unlocking value from existing operations and projects ramping up.

- **Organic growth**

Vale invested(8) US\$ 5.476 billion, excluding acquisitions, in 4Q12. Capital expenditure on project execution totaled US\$ 3.386 billion and US\$ 1.614 billion was dedicated to the maintenance of existing operations, as well as US\$ 477 million to research and development (R&D). Investments fell 18.1% in relation to 4Q11, with a consistent decrease in each of the items.

In 2012, capital and R&D expenditures excluding acquisitions totaled US\$ 17.729 billion, in line with the amount invested in 2011, however 17.2% below the budget of US\$ 21.411 billion. Of the amount disbursed in 2012, US\$ 11.580 billion was allocated to the development of projects, US\$ 4.616 billion to stay-in-business and US\$ 1.533 billion to R&D.

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

Investments in corporate social responsibility reached US\$ 1.343 billion in the year, US\$ 1.025 billion of which was destined for environmental protection and conservation and US\$ 318 million for social projects.

The allocation of capex by business segment was: US\$ 9.705 billion for bulk materials, US\$ 4.179 billion for base metals, US\$ 1.981 billion for fertilizer nutrients, US\$ 600 million for logistics services for general cargo, US\$ 388 million for power generation, US\$ 366 million for steel projects and US\$ 511 million for corporate activities and other business segments.

The capex dedicated to projects was concentrated on our main programs, especially the expansion of our Carajás integrated iron ore operations - including the CLN 150, Additional 40 Mtpy, Carajás Serra Sul S11D

---

(8) Pursuant to generally accepted US accounting principles, R&D expenditures here reported as part of the capex figures on a cash basis are expensed and as a consequence impact earnings and adjusted EBITDA. This must be observed by analysts when making comparisons, such as when comparing adjusted EBITDA and capex figures, to avoid double counting which can distort the results of analyses.

Table of Contents

and Serra Leste - with US\$ 2.858 billion and the Long Harbour integrated nickel smelting and refining plant, US\$ 1.457 billion.

Two copper projects were delivered in 2012: Salobo and Lubambe. Salobo is a copper and gold mine with two processing plants, Salobo I and II, each with a throughput of 12 Mtpy of run-of-mine (ROM), and total nominal capacity to produce 200,000 metric tons of copper in concentrates and about 320,000 ounces of gold per year. We have started production at Salobo I, and the construction of Salobo II is underway. Salobo is a world-class asset, with 1.1 billion metric tons of proven and probable reserves, and it is positioned in the first quartile of the industry cost curve.

Lubambe, developed through a joint venture with ARM, is located in the rich Zambian Copperbelt and involves an underground copper mine, processing plant and related infrastructure with estimated nominal capacity of 45,000 tpy of copper in concentrates. It was delivered on time and on budget, starting to operate in October 2012. Its concentrates are sold to local smelters.

In addition to delivering these projects, during the year we reached instrumental milestones to enable the expansion of Carajás - the richest iron ore province in the world - and provide logistics capacity for expanding our world-class coal operations in Mozambique.

In June 2012 we obtained the preliminary environmental license (LP) for the iron ore project Carajás S11D (S11D), which attests to its environmental feasibility. In October 2012, the installation license (LI) was issued for the EFC capacity expansion to 230 million metric tons per year (Mtpy), which will provide the extension of the logistics infrastructure required to support the S11D project.

S11D is our major lever for cost reduction, quality improvement and production capacity growth to strengthen Vale's undisputed leadership in the global market in terms of quality. The additional 90 Mtpy capacity's operational cost - mine, plant, railway and port - is expected to be extremely low and will create future brownfield expansion opportunities with likewise very low investment costs.

Concession agreements were signed with the government of Mozambique and Malawi, allowing us to accelerate the construction of the Nacala corridor, including the railway and maritime terminal, which will enable the transportation of up to 18 Mtpy of coal.

The Nacala corridor will leverage our world-class Moatize coal mine, which is already ramping up and being expanded to reach a total capacity of 22 million metric tons per year of mainly metallurgical coal, including the Chipanga premium hard coking coal. To align mining and logistics planning in Mozambique, together with the optimization of the cash flow disbursement schedule, we decided to postpone the start-up of Moatize II to 2H15.

Looking ahead, four main projects are starting up in 2013 to boost value over the next years: (i) The Carajás Additional 40 Mtpy that will expand iron ore capacity with high quality and low costs, (ii) CLN 150, which brings efficient logistics to support Carajás expansion, and is already coming on stream with the first ship berthed at the new Pier IV South in December 2012, (iii) Conceição Itabiritos, counteracting the effects of resources ageing with technology, and (iv) Long Harbour, which uses new technology to increase efficiency and to reduce costs in base metals.

Expenditures to sustain capital of US\$ 4.616 billion were concentrated in the iron ore and base metals sectors. The maintenance investments in iron ore included: (i) replacement and acquisition of new equipment (US\$ 537.0 million), (ii) expansion of tailing dams and residual stockpiles (US\$ 233.5 million), (iii) infrastructure enhancement (US\$ 231.6 million) and (iv) initiatives to improve the current standards of health and safety and environmental protection (US\$ 145.0 million). Maintenance of railways and ports serving our mining operations in Brazil amounted to US\$ 736.7 million.

Spending on the sustaining of base metals operations were mainly dedicated to: (i) development of ore bodies, increase in recovery rates and grades in the nickel mines (US\$ 357.3 million), (ii) AER (atmospheric

Table of Contents

emission reduction) project (US\$ 182.8 million) and (iii) acquisition of equipment related to the improvement of production processes in the copper mines (US\$ 135.0 million).

R&D expenditures decreased 12% in relation to 2011 and were 36% less than budgeted for 2012, demonstrating the discipline in capital allocation. The focus of our R&D efforts in opportunities with higher returns implies a smaller portfolio of projects taking advantage of our high quality mineral resources and using technology as a tool to maximize value.

- **Portfolio management**

In line with Vale's goal to be the best natural resources company by return to shareholders, we continued to implement the portfolio management program in 2012 with the divestiture of non-core assets to optimize capital allocation, add liquidity and focus management attention.

In 2012 we entered into divestitures agreements that amounted to US\$ 1.471 billion, which mainly included: (i) an agreement to sell for US\$ 600 million and further charter under long-term contracts 10 large ore carriers, (ii) Colombian thermal coal assets sold for US\$ 407 million, (iii) Araucária, a producer of nitrogen fertilizers for US\$ 234 million, (iv) French and Norwegian manganese ferroalloy operations for US\$ 160 million, (v) a natural gas concession in the Espírito Santo Basin, Brazil, for US\$ 40 million in cash, which also eliminates Vale's commitment to expenditures of approximately US\$ 80 million through the end of 2013, and (vi) divestiture of kaolin assets, with the sale of the 61.5% stake in CADAM for US\$ 30 million.

In addition, pursuant to a contract involving the strategic partnership with the Sultanate of Oman, we concluded the transfer of 30% of our pelletizing operation in the industrial site of Sohar, Oman, to Oman Oil Company, a company wholly-owned by the Sultanate, for US\$ 71 million.

On the other hand, expenditures to fund acquisitions totaled US\$ 648 million in 2012, which included additional stakes in EBM, the controlling shareholder of the Southern System, and in the controlling company of Carborough Downs, an underground coal mine in Queensland, Australia. After these transactions, we own 96.7% of EBM, and consequently 98.3% of the Southern System, and 85% of Carborough Downs.

Already in 2013, Vale concluded a purchase option for Belvedere exercised in June 2010 after an independent valuation, thus acquiring an additional 24.5% stake in the coal project for A\$ 150 million (US\$ 156 million using AUD/USD of 1.04). The acquisition was granted with indicative approvals by the Queensland Government and was completed in February 2013. As an outcome of this transaction, Vale's participation in Belvedere reached 100%.

**Table 7 - TOTAL INVESTMENT BY CATEGORY**

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

US\$ million	4Q11	3Q12	4Q12	2011	%	2012	%
<b>Organic growth</b>	<b>4,692</b>	<b>3,161</b>	<b>3,863</b>	<b>13,426</b>	<b>74.6</b>	<b>13,113</b>	<b>74.0</b>
Projects	4,112	2,797	3,386	11,684	64.9	11,580	65.3
R&D	579	364	477	1,742	9.7	1,533	8.6
<b>Stay-in-business</b>	<b>1,995</b>	<b>1,128</b>	<b>1,614</b>	<b>4,568</b>	<b>25.4</b>	<b>4,616</b>	<b>26.0</b>
<b>Total</b>	<b>6,686</b>	<b>4,289</b>	<b>5,476</b>	<b>17,994</b>	<b>100.0</b>	<b>17,729</b>	<b>100.0</b>

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

US\$ million	4Q11	3Q12	4Q12	2011	%	2012	%
<b>Bulk materials</b>	<b>3,805</b>	<b>2,376</b>	<b>2,970</b>	<b>9,504</b>	<b>52.8</b>	<b>9,705</b>	<b>54.7</b>
Ferrous minerals	3,415	2,084	2,556	8,307	46.2	8,453	47.7
Coal	391	292	414	1,197	6.7	1,252	7.1
<b>Base metals</b>	<b>1,293</b>	<b>1,019</b>	<b>1,241</b>	<b>4,081</b>	<b>22.7</b>	<b>4,179</b>	<b>23.6</b>
<b>Fertilizer nutrients</b>	<b>590</b>	<b>531</b>	<b>607</b>	<b>1,346</b>	<b>7.5</b>	<b>1,981</b>	<b>11.2</b>
<b>Logistics services</b>	<b>161</b>	<b>135</b>	<b>239</b>	<b>1,190</b>	<b>6.6</b>	<b>600</b>	<b>3.4</b>
<b>Power generation</b>	<b>315</b>	<b>69</b>	<b>175</b>	<b>820</b>	<b>4.6</b>	<b>388</b>	<b>2.2</b>
<b>Steel</b>	<b>299</b>	<b>36</b>	<b>68</b>	<b>460</b>	<b>2.6</b>	<b>366</b>	<b>2.1</b>
<b>Others</b>	<b>224</b>	<b>123</b>	<b>177</b>	<b>592</b>	<b>3.3</b>	<b>511</b>	<b>2.9</b>
<b>Total</b>	<b>6,686</b>	<b>4,289</b>	<b>5,476</b>	<b>17,994</b>	<b>100.0</b>	<b>17,729</b>	<b>100.0</b>

**TOTAL INVESTMENT BY BUSINESS AREA - 2012**

	Projects		R&D		Stay-in-business		Total	
	US\$ million	%	US\$ million	%	US\$ million	%	US\$ million	%
<b>Bulk materials</b>	<b>6,690</b>	<b>57.8</b>	<b>672</b>	<b>43.9</b>	<b>2,342</b>	<b>50.7</b>	<b>9,704</b>	<b>54.7</b>
Ferrous minerals	5,747	49.6	570	37.2	2,135	46.2	8,452	47.7
Coal	943	8.1	102	6.6	207	4.5	1,252	7.1
<b>Base metals</b>	<b>2,491</b>	<b>21.5</b>	<b>485</b>	<b>31.7</b>	<b>1,202</b>	<b>26.0</b>	<b>4,179</b>	<b>23.6</b>
<b>Fertilizer nutrients</b>	<b>1,467</b>	<b>12.7</b>	<b>144</b>	<b>9.4</b>	<b>370</b>	<b>8.0</b>	<b>1,981</b>	<b>11.2</b>
<b>Logistics services</b>	<b>298</b>	<b>2.6</b>	<b>8</b>	<b>0.5</b>	<b>293</b>	<b>6.4</b>	<b>600</b>	<b>3.4</b>
<b>Power generation</b>	<b>286</b>	<b>2.5</b>	<b>96</b>	<b>6.3</b>	<b>6</b>	<b>0.1</b>	<b>388</b>	<b>2.2</b>
<b>Steel</b>	<b>348</b>	<b>3.0</b>	<b>18</b>	<b>1.2</b>			<b>366</b>	<b>2.1</b>
<b>Others</b>	<b>(0)</b>	<b>(0.0)</b>	<b>109</b>	<b>7.1</b>	<b>403</b>	<b>8.7</b>	<b>512</b>	<b>2.9</b>
<b>Total</b>	<b>11,580</b>	<b>100.0</b>	<b>1,533</b>	<b>100.0</b>	<b>4,616</b>	<b>100.0</b>	<b>17,729</b>	<b>100.0</b>



Table of Contents

- 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.

Project	Estimated start-up	Executed capex US\$ million		Expected capex US\$ million		Status(1)
		2012	Total	2013	Total	
<b>IRON ORE MINING AND LOGISTICS</b>						
<b>Carajás Additional 40 Mtpy</b>	2H13	957	2,473	548	3,475	Final stage of electromechanical assembly of the processing plant and loading line. Assembly of the steel structure for the screening phase.
Construction of an iron ore dry processing plant, located in Carajás, Pará, Brazil.						Issuance of operation license (LO) expected for 2H13.
Estimated nominal capacity of 40 Mtpy.						85% of physical progress of mine and plant.
<b>CLN 150 Mtpy</b>	1H13 to 2H14	1,013	3,261	498	4,114	First ship berthed and first ship loader test of Pier IV done. Performed operational tests with the car dumpers, reclaimers and a stacker. Concluded the rail access to 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.						Required railway installation licenses (LI) issued. Operation license (LO) for the port onshore and offshore expected for 1H13.
Increase EFC's estimated nominal logistics capacity to approximately 150 Mtpy.						86% of physical progress.
<b>Carajás Serra Sul S11D</b>	2H16	739	1,813	658	8,039	Finished construction of the access road. Continuing the off-site assembly of modules and still

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

Development of a mine and processing plant, located in the Southern range of Carajás, Pará, Brazil.					receiving equipment for the truckless mining system.
Estimated nominal capacity of 90 Mtpy.					Issuance of installation license (LI) expected for 1H13.
<b>Conceição Itabiritos</b>	2H13	228	781	208	1,174
Construction of a concentration plant, in the Southeastern System, Minas Gerais, Brazil.					Project in the final phase of electromechanical assembly.
Estimated additional nominal capacity of 12 Mtpy. 100% pellet feed, with 67.7% Fe content and 0.8% silica.					Operational license (LO) for the plant expected for 1H13.  95% of physical progress.

Table of Contents

Project	Estimated start-up	Executed capex US\$ million		Expected capex US\$ million		Status(1)
		2012	Total	2013	Total	
<b>Vargem Grande Itabiritos</b>	1H14	487	916	518	1,645	The civil engineering work of the main areas was finalized and the installation of steel structures for the screening building is in progress.
Construction of new iron ore processing plant, in the Southern System, Minas Gerais, Brazil.						Operation license expected for 2H13.
Estimated additional nominal capacity of 10 Mtpy. 100% pellet feed, with 67.8% Fe content and 1.2% silica.						76% of physical progress.
<b>Conceição Itabiritos II</b>	2H14	265	424	197	1,189	Mills assembly in progress. Commissioning of the hematite primary crushing concluded.
Adaptation of the plant to process low-grade itabirites from Conceição, located in the Southeastern system, Minas Gerais, Brazil.						Installation licenses (LI) issued.
Estimated nominal capacity of 19 Mtpy, without additional capacity. 31.6% sinter feed, with 66.5% Fe content and 3.8% of silica, and 68.4% pellet feed, with 68.8% Fe content and 0.9% silica.						58% of physical progress.
<b>Serra Leste</b>	2H14	149	292	166	478	Continuing the civil engineering and assembly of steel structures of the beneficiation plant. Road and railroad construction are in progress.
Construction of new processing plant, located in Carajás, Pará, Brazil.						Re-sequenced start-up to alleviate pressure on resources.
Estimated nominal capacity of 6 Mtpy.						Installation licenses (LI) issued.

						59% of physical progress.
<b>Cauê Itabiritos</b>	2H15	98	119	206	1,504	Ongoing earthworks and civil engineering work.
Adaptation of the plant to process low-grade itabirites from Minas do Meio, located in the Southeastern system, Minas Gerais, Brazil.						Preliminary and installation licenses (LP/LI) for new primary crusher expected for 1H14.
Estimated nominal capacity of 24 Mtpy, with net additional capacity of 4 Mtpy in 2017. 29% sinter feed, with 65.3% Fe content and 4.4% of silica, and 71% pellet feed, with 67.8% Fe content and 2.8% silica.						15% of physical progress.

Table of Contents

Project	Estimated start-up	Executed capex		Expected capex		Status(1)
		US\$ million 2012	US\$ million Total	US\$ million 2013	US\$ million Total	
<b>Simandou I Zogota</b>  Development of the Zogota mine and processing plant in Simandou South, Guinea.  Estimated nominal capacity of 15Mtpy.	Under review	298	507	9	1,260	Scope and schedule under review.
<b>Teluk Rubiah</b>  Construction of a maritime terminal with enough depth for the 400,000 dwt vessels and a stockyard. Located in Teluk Rubiah, Malaysia.  Stockyard capable of handling up to 30 Mtpy of iron ore products.	1H14	298	513	443	1,371	Earthworks in final stage. Continuing the main jetty construction, with majority of the piles driven.  Issuance of operation license expected for 1H14.  54% of physical progress.
<b>PELLET PLANTS</b>						
<b>Tubarão VIII</b>  Eighth pellet plant at our existing site at the Tubarão Port, Espírito Santo, Brazil.  Estimated nominal capacity of 7.5 Mtpy.	1H13	277	889	158	1,088	The assembly of furnace refractory was finalized. Commissioning of the equipment in progress.  Issuance of operation license (LO) expected for 1H13.  91% of physical progress.
<b>Samarco IV(2)</b>	1H14				1,693	Mechanical equipment and steel structure assembly, and civil engineering work in progress.

Construction of Samarco's fourth pellet plant, and expansion of mine, pipeline and maritime terminal infrastructure. Vale has a 50% stake in Samarco.

71% of physical progress of the pellet plant. Budget fully sourced by Samarco.

Estimated nominal capacity of 8.3 Mtpy, increasing Samarco's capacity to 30.5 Mtpy.

**COAL MINING AND LOGISTICS**

<b>Moatize II</b>	2H15	383	456	344	2,068	Ongoing civil engineering work in the stockyard and primary crusher.
-------------------	------	-----	-----	-----	-------	--

New pit and duplication of the Moatize CHPP, as well as all related infrastructure, located in Tete, Mozambique.

27% of physical progress.

Nominal capacity of 11 Mtpy (70% coking coal and 30% thermal).

Table of Contents

Project	Estimated start-up	Executed capex		Expected capex		Status(1)
		US\$ million 2012	Total	US\$ million 2013	Total	
<p><b>Nacala corridor</b></p> <p>Railway and port infrastructure connecting Moatize site to the Nacala-à-Velha maritime terminal, located in Nacala, Mozambique.</p> <p>Estimated nominal capacity of 18 Mtpy.</p>	2H14	371	409	1,079	4,444	<p>Ongoing earthwork services on rail spur and on onshore port. Receiving offshore equipment for the port construction.</p> <p>12% and 15% of physical progress in railway and port respectively.</p>
<b>COPPER MINING</b>						
<p><b>Salobo II</b></p> <p>Salobo expansion, raising height of tailing dam and increase in mine capacity, located in Marabá, Pará, Brazil.</p> <p>Additional estimated nominal capacity of 100,000 tpy of copper in concentrate.</p>	1H14	407	760	401	1,707	<p>Civil engineering work of floating, milling and crushing is completed. Electromechanical assembly of equipment in these areas is in progress.</p> <p>Issuance of plant operation license (LO) expected for 1H14.</p> <p>68% of physical progress.</p>
<b>NICKEL MINING AND REFINING</b>						
<p><b>Long Harbour</b></p> <p>Hydrometallurgical facility. Located in Long Harbour, Newfoundland and Labrador, Canada.</p> <p>Estimated nominal capacity for refining 50,000 tpy of finished nickel, and associated copper and cobalt.</p>	2H13	1,457	3,156	1,094	4,250	<p>Infrastructure and civil engineering work are substantially complete. Project is moving towards final stages of electromechanical assembly and commissioning.</p> <p>84% of physical progress.</p>

<b>Totten</b>	2H13	138	540	171	759	Return air raise and mine dewatering systems completed.
Nickel mine (re-opening) in Sudbury, Ontario, Canada. Estimated nominal capacity of 8,200 tpy.						76% of physical progress.

**POTASH MINING AND LOGISTICS**

<b>Rio Colorado</b>	Under review	1,403	2,229	611	5,915	Project under review.
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.						45% of physical progress.
Estimated nominal capacity of						



Table of Contents

Project	Estimated start-up	Executed capex		Expected capex		Status(1)
		US\$ million 2012	US\$ million Total	US\$ million 2013	US\$ million Total	
4.3 Mtpy of potash (KCl).						
<b>ENERGY</b>						
<b>Biodiesel</b>	2H15	83	427	75	633	Conducting earthworks for biodiesel plant and second palm oil plant. First palm oil plant commissioned and operating.
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.						
<b>STEELMAKING</b>						
<b>CSP(2)</b>	1H15	294	576	439	2,648	Earthworks on site in final stage. Pile driving in progress.
Development of a steel slab plant in partnership with Dongkuk and Posco, located in Ceará, Brazil. Vale holds 50% of the joint venture. Estimated nominal capacity of 3.0 Mtpy.						
20% of physical progress.						

(1) as of December 2012.

(2) Realized and expected capex are relative to Vale's stake in the projects.

**DEBT INDICATORS**

Total debt was US\$ 30.546 billion as of December 31, 2012, with an increase of US\$ 1.335 billion from the US\$ 29.211 billion as of September 30, 2012. To close a temporary gap between uses and sources of funds we used US\$ 2.5 billion of our cash holdings.

Our cash position(9) at year end was US\$ 6.078 billion and in addition we have revolving credit lines maturing in 2016 of US\$ 3.0 billion, which acts as a liquidity cushion.

Our cash flow performance tends to improve in the short term, as a result of the upfront payment of US\$ 1.9 billion related to the gold streaming transaction, the adjustments for provisional pricing of iron ore shipments of more than US\$ 700 million and the higher iron ore prices in the first two months of the year.

Debt leverage, as measured by total debt/LTM adjusted EBITDA(d) ratio excluding non-recurring charges was 1.60x on December 31, 2012, compared to 1.32x on September 30, 2012. The total debt/enterprise value(e) decreased slightly to 22.5% on December 31, 2012, against 25.3% on September 30, 2012.

During 2012 we took the opportunity to raise funds in favorable market conditions. We were able to improve our average debt cost and maturity, in line with our strategy to maintain a low-risk debt portfolio, with low

---

(9) Cash holdings include cash and cash equivalents, as well as short-term investments of US\$ 246 million as of December 31, 2012.

Table of Contents

leverage, long average maturity and low cost. The average debt maturity showed a slight increase to 10.1 years in 2012 from 9.8 years in 2011 and the average cost a minor decrease to 4.63% per annum, against 4.77% per annum.

Interest coverage, measured by the LTM adjusted EBITDA excluding non-recurring charges/LTM interest payment ratio(f), was 14.6x, against 18.7x on September 30, 2012 and 29.5x on December 31, 2011.

Considering hedge positions, the total debt on December 31, 2012 was composed of 26% of floating interest rates and 74% fixed interest rates linked debt, while 97% was denominated in US dollars and the remainder in other currencies.

**Table 9 - DEBT INDICATORS**

US\$ million	4Q11	3Q12	4Q12
Total debt	23,143	29,211	30,546
Net debt	19,612	20,575	24,468
Total debt / adjusted LTM EBITDA <sup>1</sup> (x)	0.7	1.3	1.6
Adjusted LTM EBITDA(1) / LTM interest expenses (x)	29.5	18.7	14.6
Total debt / EV (%)	17.4	25.3	22.5

(1) Excluding non-recurring and non-cash items

**FUND RAISING**

The preservation of our current investment-grade ratings is an important permanent commitment. We are aiming to reconcile the cyclical decrease in our cash flow with the financing of investments and dividend distribution. Fund raising is in accordance with our strategy to diversify financial sources and instruments.

During 2012, we issued two USD denominated bonds, totaling US\$ 3.75 billion, and one EUR 750 million Eurobond:

(i) January 2012: US\$ 1 billion due in 2022 @ 4.375% per year, payable semi-annually, priced at a spread of 255 basis points over U.S. Treasuries, resulting in a yield to maturity of 4.525% per year.

(ii) March 2012: US\$ 1.250 billion due in 2022 @ 4.375% per annum, payable semi-annually, priced at a spread of 200 basis points over U.S. Treasuries, implying a yield to maturity of 4.205% per annum. The notes from this issuance were consolidated and form a single series with the

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

notes from the US\$ 1 billion issued in January 2012.

(iii) July 2012: EUR 750 million due in 2023 @ 3.750% per annum, priced at a spread of 225.7 basis points over the German Bund, implying a yield to maturity of 3.798% per annum.

(iv) September 2012: US\$ 1.5 billion due in 2042 @ 5.625% per annum, payable semi-annually, priced at a spread of 300 basis points over U.S. Treasuries, with a yield to maturity of 5.681% per annum.

Vale's mandatory convertible notes (MCN) series VALE-2012 and VALE.P-2012 matured and were converted into common and preferred American Depositary Shares (ADSs), respectively. VALE-2012 was converted into ADSs representing a total of 15,836,884 common shares, equivalent to 1.3% of outstanding common shares, and the series VALE.P-2012 notes represented 40,241,968 preferred class A shares, equivalent to 2.2% of outstanding preferred class A shares. The MCN was a hybrid security with debt and equity-like features, which is not recorded as debt.

Table of Contents

In September 2012, Vale signed with BNDES – the Brazilian National Development Bank – a contract of R\$ 3.9 billion to finance the CLN 150 Mtpy project.

In October 2012, we signed a trade finance agreement with a local Brazilian bank in the amount of R\$ 2.5 billion with a 10-year maturity.

Throughout the year, we made some disbursements from the long-term credit lines extended by official credit agencies – BNDES US\$ 1.548 billion, Export Development Canada US\$ 475 million, Bank of China and China Exim US\$ 370 million and Korea Exim Corp US\$ 248 million to finance projects.

PERFORMANCE OF THE BUSINESS SEGMENTS

**Bulk materials**

*Ferrous minerals*

Sales of iron ore and pellets reached an all-time high of 303.443 Mt, 1.4% higher than the previous record of 299.148 Mt in 2011. Shipments of iron ore were 258.061 Mt, in line with the 257.287 Mt sold in the previous year, while pellet sales increased to 45.382 Mt, with an 8.4% year-on-year increase.

After the sharp downward price volatility in 3Q12, caused by a destocking cycle resulting primarily from a weak global demand for steel, market conditions improved in the last quarter of the year. The supply response by high cost producers to lower prices and the resumption of demand growth in China influenced by stronger investments in infrastructure and construction and sales of cars set the stage for a V-shaped recovery in prices.

Iron ore prices reached a trough in the first week of September, with the Platts 62% Fe IODEX at US\$ 88.50. At year end, prices climbed to US\$ 140.75 and continued to increase in the first two months of this year. It is worthwhile to notice that the price rally took place simultaneously to increasing exports to China from the two largest players, Australia and Brazil.

Iron ore shipments in 4Q12 were 11.9% higher than in 3Q12. Pellet sales fell by 10.3% in the same period, due to the excess supply of blast furnace pellets. In addition to the temporary shutdown of the São Luís and Tubarão I & II plants, our output was refocused to direct reduction pellets to meet the stronger demand from the Middle East and the US.

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

In 4Q12, we sold 39.1 Mt of iron ore and pellets 46.1% of our sales on a CFR basis, against 32.9 Mt in 3Q12 and 33.3 Mt in 4Q11. In 2012, 39.9% of our total sales were on a CFR basis, against 30.0% in 2011. Reported revenues for iron ore and pellets are net of the costs of maritime freight, meaning that FOB prices are comparable to CFR prices.

The distribution of our sales by pricing system was: 14% VRP (three-month average with a one-month lag), 26% VCP (current quarter average), and 60% spot (VDP) and monthly average (VMP). VDP, Vale Daily Price, offers different daily pricing options, some of them involving provisional prices that are adjusted to the spot price prevailing some time after the arrival of the cargo.

The average sales price of iron ore was US\$ 93.66 in 4Q12, increasing by US\$ 9.97 (11.9%) compared to US\$ 83.69 in 3Q12. The gap to average Platts index 62% Fe content continued to narrow, to US\$ 28.68 from US\$29.52 in 3Q12 and US\$ 37.89 in 2Q12.

Table of Contents

The factors that contributed to the increase in the average sales price were the rise in market prices, and a higher proportion of VDP and CFR sales. A more intense use of our global distribution network is contributing to capture higher value in our sales. Currently, we have 24 Valemax vessels under operation which are able to berth in 7 ports in Europe and Asia. On the other hand, higher humidity, lower VRP prices and premium for quality limited the price increase.

The average sales price of pellets in 2012 was US\$ 147.37 per metric ton, 24.0% below US\$ 193.79 in 2011. In 4Q12, the average sales price was US\$ 126.73 per metric ton, 10.1% below the US\$ 140.98 in the previous quarter. The decline in price in 4Q12 was mainly due to the higher proportion of sales priced according to VRP, higher humidity and a lower quality premium.

China's share in the shipments of iron ore and pellets continued to increase to 55.1% from 49.1% in 3Q12. Sales to Europe decreased to 14.7% from 17.9%, while sales to Japan decreased to 8.7% from 10.9% in the previous quarter.

In 2012, sales of iron ore and pellets to China increased to 49.0% from 44.1% in the previous year. Sales to Europe decreased to 17.1% from 18.9% in 2011, and sales to Brazil decreased to 11.7% from 13.4%.

Following the trend in demand, our shipments to Asia surged to 66.2% from 38.1% of our total shipments in 2005, which is explained by the rise in the Chinese share to 49.0% against 21.2%.

Europe and Brazil reduced their shares in our shipments, as the demand for iron ore in these two markets did not expand. In Brazil, vertical integration by some steelmakers has even led to diminishing the market for iron ore. In Europe, iron ore consumption has not recovered to the pre-crisis level in 2008. Europe's share fell to 17.1% from 28.7% in 2005 while Brazil's dropped to 11.7% from 22.6%.

In 2012, manganese revenues increased to US\$ 234 million, up from US\$ 171 million in 2011. In 4Q12, revenues reached US\$ 72 million, increasing 26.3% over the US\$ 57 million in 3Q12, due mostly to higher prices (US\$ 12 million) and sales volumes (US\$ 3 million) spurred by higher demand from China. Sales volumes reached 473,000 t in 4Q12, increasing 6.0% in relation to 3Q12, while the average sales price grew to US\$ 152.22 per metric ton, 19.1% above the previous quarter.

Sales of ferroalloys amounted to 267,000 metric tons in 2012, 30.8% below the 386,000 metric tons in 2011, and generated revenues of US\$ 358 million, against US\$ 557 million in 2011. The significant yearly decrease in sales volume and revenues for ferroalloys is due to the sale of our manganese ferroalloys operations in Europe.

The average realized price of ferroalloys decreased to US\$ 1,340.82 per metric ton from US\$ 1,443.01 in 2011. In 4Q12, the average realized price fell to US\$ 1,470.59, 17.1% below the US\$ 1,774.19 in 3Q12.

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

In 4Q12, total ferrous minerals revenue reached US\$ 8.422 billion, 14.7% above the US\$ 7.340 billion in 3Q12.

The adjusted EBIT margin for the ferrous minerals business was 44.6% in 4Q12, against 51.9% (excluding the non-recurring effect of the US\$ 542 million CFEM provision) in 3Q12. In 2012, the operational margin fell to 52.2% (excluding the CFEM provision in 3Q12) from 66.1% in 2011, mainly as a result of lower sales prices.

In 4Q12, adjusted EBITDA reached US\$ 4.587 billion, increasing 4.8% compared to 3Q12. The increase of US\$ 212 million was mainly due to the positive impact of higher sales prices (US\$ 551 million) and volumes (US\$ 306 million), higher dividends received from non-consolidated affiliated companies (US\$ 222 million) and positive exchange rate variations (US\$ 34 million). These effects were offset by higher expenses (US\$ 741 million) and higher COGS(10) (US\$ 160 million), mainly due to higher freight costs (US\$ 242 million)(11).

---

(10) Excluding the effects of the US dollar appreciation and volumes.

(11) Net of the effects of volume and exchange rate variation.



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

000 metric tons	4Q11	3Q12	4Q12	2011	%	2012	%
<b>Americas</b>	<b>10,646</b>	<b>9,677</b>	<b>9,618</b>	<b>47,056</b>	<b>15.7</b>	<b>41,342</b>	<b>13.6</b>
Brazil	8,856	8,066	8,729	40,212	13.4	35,612	11.7
Steel mills and pig iron producers	7,947	8,001	8,729	35,741	11.9	33,235	11.0
JVs pellets	909	65		4,471	1.5	2,376	0.8
USA	268	181		571	0.2	880	0.3
Others	1,522	1,430	889	6,273	2.1	4,851	1.6
<b>Asia</b>	<b>54,077</b>	<b>52,269</b>	<b>59,550</b>	<b>186,523</b>	<b>62.4</b>	<b>200,895</b>	<b>66.2</b>
China	38,023	38,344	46,706	131,870	44.1	148,746	49.0
Japan	9,011	8,487	7,352	32,991	11.0	30,227	10.0
South Korea	5,044	3,868	4,147	15,187	5.1	16,136	5.3
Others	1,999	1,570	1,345	6,474	2.2	5,786	1.9
<b>Europe</b>	<b>12,949</b>	<b>14,007</b>	<b>12,510</b>	<b>56,508</b>	<b>18.9</b>	<b>51,805</b>	<b>17.1</b>
Germany	5,017	4,185	5,247	22,213	7.4	19,321	6.4
United Kingdom	1,091	1,169	1,223	3,653	1.2	3,527	1.2
France	1,385	1,840	1,945	5,333	1.8	5,760	1.9
Italy	2,715	2,771	1,513	11,399	3.8	9,870	3.3
Turkey	509	1,202	338	2,702	0.9	3,080	1.0
Spain	419	656	390	2,643	0.9	2,798	0.9
Netherlands	847	767	791	3,983	1.3	2,754	0.9
Others	967	1,417	1,063	4,582	1.5	4,695	1.5
<b>Middle East</b>	<b>1,925</b>	<b>1,577</b>	<b>2,177</b>	<b>5,258</b>	<b>1.8</b>	<b>6,732</b>	<b>2.2</b>
<b>Rest of the World</b>	<b>1,149</b>	<b>641</b>	<b>969</b>	<b>3,803</b>	<b>1.3</b>	<b>2,669</b>	<b>0.9</b>
<b>Total</b>	<b>80,746</b>	<b>78,171</b>	<b>84,824</b>	<b>299,148</b>	<b>100.0</b>	<b>303,443</b>	<b>100.0</b>

**OPERATING REVENUE BY PRODUCT**

US\$ million	4Q11	3Q12	4Q12	2011	2012
Iron ore	8,483	5,541	6,939	35,008	24,972
Pellet plant operation services	10			38	19
Pellets	1,980	1,687	1,361	8,112	6,688
Manganese ore	32	57	72	171	234
Ferroalloys	115	55	50	557	358
Others				4	
<b>Total</b>	<b>10,620</b>	<b>7,340</b>	<b>8,422</b>	<b>43,890</b>	<b>32,270</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	4Q11	3Q12	4Q12	2011	2012
Iron ore	121.38	83.69	93.66	136.07	96.77
Pellets	182.39	140.98	126.73	193.79	147.37
Manganese ore	180.79	127.80	152.22	165.70	134.10
Ferroalloys	1,474.36	1,774.19	1,470.59	1,443.01	1,340.82

**VOLUME SOLD**

<b>000 metric tons</b>	<b>4Q11</b>	<b>3Q12</b>	<b>4Q12</b>	<b>2011</b>	<b>2012</b>
Iron ore	69,890	66,205	74,085	257,287	258,061
Pellets	10,856	11,966	10,739	41,861	45,382
Manganese ore	177	446	473	1,032	1,745
Ferroalloys	78	31	34	386	267

Table of Contents

## NEW FREIGHT ACCOUNTING PRACTICE

In the last decade, our iron ore and pellet sales were sold mostly on an FOB basis. However, the Great Recession resulted in a fundamental shift in Vale's commercial strategy. Transactions on cost and freight basis increased and the spot market for iron ore developed, expanding continuously.

In 2009, we started to implement a new marketing policy, involving among other things a more flexible stance towards iron ore pricing, sales on a CFR basis and the enlargement of our client base in China. This also included the development of a low-cost portfolio of maritime freight that will continue to increase through very large ore carriers (VLOCs) and long-term affreightment contracts with shipping companies. Additionally, iron ore blending and distribution centers (DCs) and floating transfer stations (FTS) are another element of the distribution strategy.

So to reach capacity to negotiate products delivered in the clients' ports - the current point of sale - our role evolved from being just an agent to becoming the manager of hired freight. Therefore, we decided to reflect this new condition and adjust the accounting treatment for the freight cost of hired vessels in our financial statements. Operating revenues will no longer be net of this freight cost, and consequently it will be added to COGS, in the same way our own vessels and transportation to DCs and FTSs have been treated.

For comparison consistency, the current press release was not adjusted for the new accounting practice, although it is applied to the financial statements as of December 31st, 2012. The new accounting practice for freight cost will be fully incorporated in our Financial Performance Report starting in 1Q13, along with the adoption of IFRS as the sole reporting standard.

In order to understand the changes we will present the 2011 and 2012 figures before and after the new practice.

## SELECTED FINANCIAL INDICATORS

US\$ million	Before new practice	2011 New practice adjustments	After new practice	Before new practice	2012 New practice adjustments	After new practice
Operating revenues	60.389	1.956	62.345	46.454	2.299	48.753
Adjusted EBIT margin excluding non-recurring items(%)	48,5		46,9	31,5		29,9

## REVENUES BY PRODUCT

2011

2012

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

US\$ million	Before new practice	New practice adjustments	After new practice	Before new practice	New practice adjustments	After new practice
<b>Bulk materials</b>	<b>44.948</b>	<b>1.956</b>	<b>46.904</b>	<b>33.362</b>	<b>2.299</b>	<b>35.662</b>
<b>Ferrous minerals</b>	<b>43.890</b>	<b>1.956</b>	<b>45.846</b>	<b>32.270</b>	<b>2.299</b>	<b>34.570</b>
Iron ore	35.008	1.902	36.910	24.972	2.230	27.202
Pellets	8.112	54	8.166	6.688	69	6.757
Manganese ore	171		171	234		234
Ferroalloys	557		557	358		358
Pellet plant operation services	38		38	19		19
Others	4		4	0		0
<b>Coal</b>	<b>1.058</b>		<b>1.058</b>	<b>1.092</b>		<b>1.092</b>
<b>Base metals</b>	<b>9.628</b>		<b>9.628</b>	<b>7.133</b>		<b>7.133</b>
<b>Fertilizer nutrients</b>	<b>3.547</b>		<b>3.547</b>	<b>3.777</b>		<b>3.777</b>
<b>Logistics services</b>	<b>1.726</b>		<b>1.726</b>	<b>1.644</b>		<b>1.644</b>
<b>Others</b>	<b>540</b>		<b>540</b>	<b>537</b>		<b>537</b>
<b>Total</b>	<b>60.389</b>	<b>1.956</b>	<b>62.345</b>	<b>46.454</b>	<b>2.299</b>	<b>48.753</b>

Table of Contents**SELECTED FINANCIAL INDICATORS**

US\$ million	Before new practice	2011 New practice adjustments	After new practice	Before new practice	2012 New practice adjustments	After new practice
Personnel	3.138		3.138	3.545		3.545
Material	3.758		3.758	4.263		4.263
Gas and Energy	3.149		3.149	2.937		2.937
Acquisition of products	2.274		2.274	1.368		1.368
Outsourced services	4.244		4.244	4.769		4.769
Freight	295	1.956	2.251	502	2.299	2.801
Depreciation	3.735		3.735	3.896		3.896
Shared services	399		399	303		303
Others	2.581		2.581	2.710		2.710
<b>Total COGS</b>	<b>23.573</b>	<b>1.956</b>	<b>25.529</b>	<b>24.292</b>	<b>2.299</b>	<b>26.591</b>

**Coal**

In 2012, revenues from sales of coal products reached US\$ 1.092 billion, breaking our previous record of US\$ 1.058 billion in 2011.

Total coal shipments were 7.997 Mt in 2012, an increase of 4.2% from 7.672 Mt in 2011, mostly due to the large increase of 2.534 Mt in metallurgical coal volumes, driven by the ramp-up of Moatize, in Mozambique. The drop in thermal coal volumes (2.208 Mt) was caused by the sale of the thermal coal assets in Colombia. In 2012, metallurgical coal which is our main priority in the coal business - represented 60.8% of the volumes sold and thermal coal 39.2%.

In February 2013, we declared force majeure on a number of coal sales contracts in Mozambique due to heavy rainfall 50% above the same period of 2011 - that created serious challenges to the Linha do Sena railway. We estimate a loss of approximately 250,000 metric tons in metallurgical coal shipments. *Caminhos de Ferro de Moçambique* (CFM), owner of the railway, is taking all the necessary measures to restore the railway traffic and the situation is expected to be normalized by the end of this month.

In 4Q12, revenues from metallurgical coal were US\$ 181 million, 11.5% lower than 3Q12. The decrease was due to the lower average realized price of US\$ 132.49 per metric ton vis-à-vis US\$ 177.97 in the last quarter, which was expected as our sales are priced with a lag and were thus impacted by the sharp fall in metallurgical coal prices in 3Q12. In 2012, metallurgical coal revenues reached US\$ 834 million compared to US\$ 548 million in 2011, while the average realized price fell to US\$ 171.38 per metric ton from US\$ 235.27 in the same period.

In 4Q12, revenues from sales of thermal coal were US\$ 21 million, equal to 3Q12, with even volumes and a slight increase in average sale price to US\$ 93.57 per metric ton from US\$ 90.91 in the previous quarter. In



Table of Contents

2012, sales volumes fell to 3.134 Mt from 5.342 Mt in 2011, while the average sale price fell to US\$ 82.39 per metric ton from US\$ 95.54 in 2011.

In 4Q12, adjusted EBITDA for the coal business was -US\$ 172 million excluding impairment charges(12) against -US\$ 66 million in 3Q12. The US\$ 106 million fall in adjusted EBITDA is due to higher SG&A (US\$ 106 million), and lower prices (US\$ 61 million), which were partially offset by lower COGS(13) (US\$ 61 million).

**Table 11 - COAL BUSINESS PERFORMANCE****OPERATING REVENUE BY PRODUCT**

US\$ million	4Q11	3Q12	4Q12	2011	2012
Thermal coal	181	21	21	510	258
Metallurgical coal	182	204	181	548	834
<b>Total</b>	<b>363</b>	<b>225</b>	<b>202</b>	<b>1,058</b>	<b>1,092</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	4Q11	3Q12	4Q12	2011	2012
Thermal coal	100.71	90.91	93.57	95.54	82.39
Metallurgical coal	220.27	177.97	132.49	235.27	171.38

**VOLUME SOLD**

000 metric tons	4Q11	3Q12	4Q12	2011	2012
Thermal coal	1,796	229	228	5,342	3,134
Metallurgical coal	829	1,148	1,364	2,330	4,864

**Table 12 - BULK MATERIALS: SELECTED FINANCIAL INDICATORS**

US\$ million	4Q11	3Q12	4Q12	2011	2012
<b>Adjusted EBIT margin(1) (%)</b>					
<b>Bulk materials</b>					
Ferrous minerals	60.5	51.9	44.6	66.1	52.2
Coal	(61.4)	(52.4)	(146.0)	(45.7)	(59.2)
<b>Adjusted EBIT(1)</b>					
<b>Bulk materials</b>	<b>6,090</b>	<b>3,637</b>	<b>3,399</b>	<b>27,987</b>	<b>15,923</b>
Ferrous minerals	6,313	3,755	3,694	28,471	16,570

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

Coal	(223)	(118)	(295)	(484)	(647)
<b>Adjusted EBITDA(1)</b>					
<b>Bulk materials</b>	<b>7,044</b>	<b>4,309</b>	<b>4,415</b>	<b>31,462</b>	<b>19,059</b>
Ferrous minerals	7,154	4,375	4,587	31,630	19,333
Coal	(110)	(66)	(172)	(168)	(274)
<b>Costs and expenses(1)</b>					
<b>Bulk materials</b>	<b>(4,180)</b>	<b>(3,362)</b>	<b>(4,552)</b>	<b>(14,299)</b>	<b>(14,897)</b>
Ferrous minerals	(3,678)	(3,043)	(4,129)	(12,921)	(13,356)
Coal	(502)	(319)	(423)	(1,378)	(1,541)

---

(1) Excluding non-recurring items

(12) Australian coal assets (US\$ 1.029 billion).

(13) Excluding the effects of US dollar appreciation and volumes.



Table of Contents

**Base metals**

In February 2013, we entered into a transaction that unlocks substantial value still hidden in our base metals business and enhances our cash flow in the very short term. We agreed to sell 25% of the payable gold produced as a by-product at our Salobo copper mine for the life of that mine and to sell 70% of the gold produced as a by-product at our Sudbury nickel mines for the next 20 years. We will receive an initial cash payment of US\$1.9 billion and 10 million warrants exercisable into Silver Wheaton shares, with a strike price of US\$65.0 and a 10-year term, and ongoing payments of the lesser of US\$400 (subject to an annual inflation adjustment for Salobo) and the prevailing market price, for each ounce of gold upon delivery under the agreement.

Our base metals business is undergoing changes in order to achieve significant performance improvement and to deliver shareholder value on a sustainable basis. Alongside the efforts to unlock value from its operations such as the gold streaming transaction and the potential divestiture of non-core assets, Vale is pursuing lower costs and higher productivity arising from the simplification of its flowsheet, the idling of loss making operations, the feeding of smelters only with high value concentrates resulting from the optimization of mining plans and the use of technological innovation.

As an outcome of lower prices (US\$ 1.730 billion) and sales volumes (US\$ 764 million), revenues from base metals and their by-products totaled US\$ 7.133 billion, 25.9% below 2011. In 4Q12, revenues expanded 2.5% over 3Q12, reaching US\$ 1.811 billion, chiefly due to higher nickel prices and volumes.

Revenues from nickel sales in 4Q12 grew 11.8% on a quarter-on-quarter basis, reaching US\$ 1.015 billion, due to higher sales prices, US\$ 17,500 per metric ton against US\$ 16,509 in 3Q12, and greater volumes, 58,000 t against 55,000 t.

In 4Q12, copper revenues were US\$ 593 million, decreasing 8.8% quarter-on-quarter. The increase in the average realized price to US\$ 7,510 per metric ton from US\$ 7,352 was not enough to offset the effect of lower volumes, 79,000 t versus 88,000 t in 3Q12. The decrease in volumes was partly offset by a rise in the previous quarter.

Sales of PGMs (platinum group metals) generated revenues of US\$ 75 million in 4Q12, compared to US\$ 90 million in 3Q12, impacted by lower volumes sold, 77,000 troy ounces (oz) against 98,000 oz.

Gold sales increased to 52,000 oz from 48,000 oz in 3Q12, as a consequence of the ramp-up of Salobo. Revenues from gold sales reached US\$ 90 million in 4Q12 compared to US\$ 83 million in the previous quarter, reflecting elevated sales volumes and a slight increase in prices, 1.1%.

The VNC integrated operation is running and is proving to be technically feasible. The refinery is now operating using acid from our own acid plant. The main focus for 1Q13 will be achieving process stability and continuing to increase the throughput of the plant. VNC produced 812 t of nickel in nickel oxide in December 2012. Last month, it delivered 1,380 t of nickel in nickel oxide (87%) and nickel hydroxide cake (13%) and 100t of cobalt. In February, the second production line starts to operate.

Adjusted EBITDA(14), excluding pre-operating, idling and start-up expenses (US\$ 400 million) and research and development expenses (US\$ 69 million), reached US\$ 613 million, up 37.4% from 3Q12. This shows that the successful ramp-up of projects presents a major upside to the current performance. As long as the projects enter into more advanced stages of ramp-up variable costs tend to decrease, fixed costs tend to be diluted by economies of sales and revenues increase.

---

(14) Nor including impairment charges.

Table of Contents**Table 13 - BASE METALS BUSINESS PERFORMANCE****OPERATING REVENUE BY PRODUCT**

US\$ million	4Q11	3Q12	4Q12	2011	2012
Nickel	1,265	908	1,015	5,720	4,145
Copper	874	650	593	2,547	2,168
PGMs	87	90	75	493	383
Gold	94	83	90	173	294
Silver	19	13	14	218	63
Cobalt	23	11	11	94	55
Others		11	13		24
<b>Total</b>	<b>2,363</b>	<b>1,766</b>	<b>1,811</b>	<b>9,628</b>	<b>7,133</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	4Q11	3Q12	4Q12	2011	2012
Nickel	18,333.33	16,509.09	17,500.00	22,680.41	17,866.38
Copper	7,711.71	7,351.83	7,510.35	8,420.73	7,595.44
Platinum (US\$/oz)	1,489.93	1,539.61	1,670.11	1,716.81	1,590.87
Gold (US\$/oz)	1,686.20	1,717.42	1,736.23	1,558.55	1,755.52
Silver (US\$/oz)	26.66	32.31	36.83	31.64	33.82
Cobalt (US\$/lb)	12.96	11.55	10.97	15.63	12.27

**VOLUME SOLD**

'000 metric tons	4Q11	3Q12	4Q12	2011	2012
Nickel	69	55	58	252	232
Copper	113	88	79	302	285
Gold ( '000 oz)	56	48	52	198	168
Silver ( '000 oz)	720	411	391	2,626	1,862
PGMs ( '000 oz)	110	98	77	446	386
Cobalt (metric ton)	805	432	455	2,721	2,033

**SELECTED FINANCIAL INDICATORS**

US\$ million	4Q11	3Q12	4Q12	2011	2012
Adjusted EBIT margin(1) (%)	3.1	(19.8)	(17.9)	13.5	(14.6)
Adjusted EBIT(1)	73	(350)	(324)	1,292	(1,044)
Adjusted EBITDA(1)	700	168	213	3,329	1,052
Costs and expenses(1)	(1,797)	(1,706)	(1,674)	(6,735)	(6,528)

(1) Excluding non-recurring items

**Fertilizer nutrients**

Revenues from fertilizer nutrients reached an all-time high in 2012 at US\$ 3.777 billion, 6.5% more than the US\$ 3.547 billion in 2011. In 4Q12, revenues decreased to US\$ 930 million from US\$ 1.095 billion in 3Q12, due to the seasonal effect determined by the end of the crop season in Brazil.

In 2012, sales of potash generated revenues of US\$ 308 million, 7.3% above 2011. They remained steady at US\$ 79 million in 4Q12, compared to US\$ 78 million in the previous quarter. Volumes were slightly smaller, at 143,000 t vis-à-vis 146,000 t in 3Q12. The average realized price for potash in 4Q12 increased to US\$ 552.45 per metric ton, against US\$ 534.25 in 3Q12.

In 4Q12, revenues from phosphate products totaled US\$ 622 million, 20.5% lower than the US\$ 783 million in 3Q12, due to the fall in volumes, US\$ 146 million, and prices, US\$ 14 million. Total shipments of MAP were 310,000 t, TSP 142,000 t, SSP 501,000 t, and DCP 124,000 t. Sales of phosphate rock were 954,000 t, 19.6% higher than the 798,000 t in 3Q12, reflecting the ramp up of Bayóvar, in Peru.

Table of Contents

Revenues from sales of nitrogen fertilizers were US\$ 208 million, equaling the number for 3Q12.

The adjusted EBIT margin of the fertilizer business was 3.7%, down from 4.3% in 3Q12.

Adjusted EBITDA for the fertilizers business, excluding the non-recurring effect of accounting losses related to the sale of the Araucária refinery, fell to US\$ 188 million from US\$ 201 million in 3Q12. The reduction in adjusted EBITDA was a result of lower volumes (US\$ 80 million) and sales prices (US\$ 4 million), which were partly offset by a reduction in COGS and SG&A expenses (US\$ 65 million), and the positive effect of exchange rate variations (US\$ 9 million).

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

US\$ million	4Q11	3Q12	4Q12	2011	2012
Potash	77	78	79	287	308
Phosphates	563	783	622	2,395	2,583
Nitrogen	199	208	208	782	801
Others	17	26	21	83	85
<b>Total</b>	<b>856</b>	<b>1,095</b>	<b>930</b>	<b>3,547</b>	<b>3,777</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	4Q11	3Q12	4Q12	2011	2012
Potash	534.72	534.25	552.45	505.28	530.12
Phosphates					
MAP	664.45	656.50	646.89	679.65	646.58
TSP	531.61	532.93	526.59	585.98	526.67
SSP	275.74	288.87	299.00	281.53	268.58
DCP	638.51	599.98	593.50	679.63	628.36
Phosphate rock	119.45	135.34	116.35	112.80	124.82
Nitrogen	654.25	624.62	624.62	612.01	597.01

**VOLUME SOLD**

'000 metric tons	4Q11	3Q12	4Q12	2011	2012
Potash	144	146	143	568	581
Phosphates					
MAP	294	362	310	907	1,221
TSP	111	245	142	594	713

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

SSP	458	753	501	2,501	2,446
DCP	128	120	124	556	474
Phosphate rock	754	798	954	2,652	3,314
Others phosphates	39	76	43	164	194
Nitrogen	304	333	333	1,278	1,342

**SELECTED FINANCIAL INDICATORS**

US\$ million	4Q11	3Q12	4Q12	2011	2012
Adjusted EBIT margin(1) (%)	10.2	4.3	3.7	7.0	4.7
Adjusted EBIT(1)	82	45	33	232	169
Adjusted EBITDA(1)	203	201	188	794	741
Costs and expenses(1)	(640)	(867)	(736)	(2,632)	(2,938)

---

(1) Excluding non-recurring items

Table of Contents

**Logistics services**

Revenues from logistics services in 2012 were US\$ 1.644 billion, 4.8% lower than in 2011.

In 2012, Vale's railroads carried 26.229 billion ntk, increasing 12.8% over 2011, and maritime terminals handled 21.236 Mt, compared to 25.922 Mt in the previous year, an 18.1% decrease. The increase in general cargo transportation was due to a longer than expected crop season in Brazil which yielded 8.4% more than in 2011. The decrease in the volume handled at our ports and maritime terminals was related to 31.1% lower metallurgical coal import volumes by Brazilian steelmakers compared to 2011.

Following its normal seasonal standard, revenues decreased in 4Q12 to US\$ 384 million from US\$ 449 million in the previous quarter.

Revenues from rail transportation of general cargo were US\$ 268 million, 13.0% lower than in 3Q12. Vale railroads Carajás (EFC), Vitória a Minas (EFVM), Norte-Sul (FNS) and Centro-Atlântica (FCA) transported 7.336 billion ntk(15) of general cargo for clients in 4Q12, compared to 8.036 billion ntk in 3Q12.

The main cargoes carried by our railroads in 4Q12 were agricultural products (50.5%), steel industry inputs and products (28.6%), building materials and forestry products (13.5%), fuels (7.0%) and others (0.4%).

Port services revenues totaled US\$ 116 million in 4Q12. Our ports and maritime terminals handled 4.022 Mt of general cargo, 26.6% lower than the 5.481 Mt handled in 3Q12.

In 4Q12, the adjusted EBIT margin was -17.0%, down from -6.6% in 3Q12.

In 2012, adjusted EBITDA totaled US\$ 53 million. Adjusted EBITDA for the logistics business was US\$ 12 million in 4Q12, 65.7% lower than in 3Q12, mainly due to higher COGS(16) (US\$ 72 million) and lower transported volumes (US\$ 54 million), which were partly offset by lower expenses (US\$ 72 million), higher prices (US\$ 28 million) and the positive impact of exchange rate variation (US\$ 3 million).

**Table 15 - LOGISTICS BUSINESS PERFORMANCE**

**OPERATING REVENUE BY PRODUCT**

US\$ million	4Q11	3Q12	4Q12	2011	2012
--------------	------	------	------	------	------

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

Railroads	300	308	268	1,265	1,135
Ports	120	141	116	461	509
Total	420	449	384	1,726	1,644

**VOLUME SOLD**

000 metric tons	4Q11	3Q12	4Q12	2011	2012
Railroads (million ntk)	5,192	8,036	7,336	23,248	26,229
Ports	6,811	5,481	4,022	25,922	21,236

**SELECTED FINANCIAL INDICATORS**

US\$ million	4Q11	3Q12	4Q12	2011	2012
Adjusted EBIT margin (%)	(17.2)	(6.6)	(17.0)	(6.3)	(14.2)
Adjusted EBIT	(60)	(25)	(54)	(91)	(197)
Adjusted EBITDA	34	35	12	259	53
Costs and expenses	(347)	(349)	(310)	(1,318)	(1,346)

---

(15) Ntk=net ton kilometer

(16) Excluding the effects of US dollar appreciation and volumes.



Table of Contents

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/Quarterly-results-reports/Financial-statements-BR-GAAP-IFRS-US-GAAP](http://www.vale.com/investors/Quarterly-results-reports/Financial-statements-BR-GAAP-IFRS-US-GAAP)

CONFERENCE CALL AND WEBCAST

Vale will host two conference calls and webcasts on Thursday, February 28. The first, in Portuguese (without translation), will begin at 10:00 a.m. Rio de Janeiro time. The second, in English, at 12:00 p.m. Rio de Janeiro time, 10:00 a.m. US Eastern Standard Time, 3:00 p.m. British Standard Time, and 11:00 p.m. Hong Kong time.

Dial in to conference calls/webcasts:

In Portuguese:

Participants from Brazil: (55 11) 4688-6361

Participants from the USA: (1 855) 281-6021

Participants from other countries: (1 786) 924-6977

Access code: VALE

In English:

Participants from Brazil: (55 11) 4688-6361

Participants from USA: (1 866) 262-4553

Participants from other countries: (1 412) 317-6029

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 of February 28, 2012.



Table of Contents

IFRS RECONCILIATION WITH USGAAP

Since December 2010, the convergence of the full year financial statements has been 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 US GAAP is as follows:

US\$ million	4Q12
<b>Net income IFRS</b>	(2,704)
Depletion of assets on business acquired	(36)
Income tax	(12)
Pension plan	60
Other adjustments	45
<b>Net income US GAAP</b>	<b>(2,647)</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.

Beginning with the year of 2013, we will also adopt the IFRS for preparing our reports and financial statements filed with the U.S. Securities and Exchanges Commission (SEC), and therefore will cease following the US GAAP.

Table of Contents

## ANNEX 1 FINANCIAL STATEMENTS

**Table 16 - INCOME STATEMENT**

US\$ million	4Q11	3Q12	4Q12	2011	2012
<b>Gross operating revenues</b>	<b>14,755</b>	<b>10,963</b>	<b>12,002</b>	<b>60,389</b>	<b>46,454</b>
Taxes	(328)	(238)	(279)	(1,399)	(1,059)
<b>Net operating revenue</b>	<b>14,427</b>	<b>10,725</b>	<b>11,723</b>	<b>58,990</b>	<b>45,395</b>
Cost of goods sold	(6,025)	(6,128)	(6,459)	(23,573)	(24,292)
<b>Gross profit</b>	<b>8,402</b>	<b>4,597</b>	<b>5,264</b>	<b>35,417</b>	<b>21,103</b>
Gross margin (%)	58.2	42.9	44.9	60.0	46.5
Selling, general and administrative expenses	(827)	(519)	(577)	(2,334)	(2,240)
Research and development expenses	(529)	(360)	(460)	(1,674)	(1,478)
Gain (loss) from sale of assets			(114)	1,513	(491)
Impairment			(4,023)		(4,023)
Others	(1,023)	(1,071)	(1,287)	(2,810)	(3,648)
<b>Operating profit</b>	<b>6,023</b>	<b>2,647</b>	<b>(1,197)</b>	<b>30,112</b>	<b>9,223</b>
Financial revenues	139	88	74	718	401
Financial expenses	(547)	(682)	(560)	(2,465)	(2,414)
Gains (losses) on derivatives, net	46	(12)	12	75	(120)
Monetary and exchange variation	(108)	(228)	(174)	(1,641)	(1,668)
Tax and social contribution (Current)	(1,038)	(1,077)	(614)	(5,547)	(2,529)
Tax and social contribution (Deferred)	(109)	697	1,320	265	2,126
Reversal of deferred income tax					1,236
Impairment on investments			(1,641)		(1,641)
Equity income and provision for losses	167	154	85	1,135	640
Minority shareholding participation	99	82	48	233	257
<b>Net earnings</b>	<b>4,672</b>	<b>1,669</b>	<b>(2,647)</b>	<b>22,885</b>	<b>5,511</b>
<b>Earnings per share (US\$)</b>	<b>0.91</b>	<b>0.32</b>	<b>(0.51)</b>	<b>4.42</b>	<b>1.08</b>

**Table 17 - FINANCIAL RESULTS**

US\$ million	4Q11	3Q12	4Q12	2011	2012
Gross interest	(374)	(271)	(315)	(1,388)	(1,249)
Debt with third parties	(374)	(264)	(311)	(1,381)	(1,238)
Debt with related parties		(7)	(4)	(7)	(11)
Tax and labour contingencies	(13)	(12)	(19)	(41)	(79)
Others	(160)	(399)	(226)	(1,036)	(1,086)
<b>Financial expenses</b>	<b>(547)</b>	<b>(682)</b>	<b>(560)</b>	<b>(2,465)</b>	<b>(2,414)</b>
<b>Financial income</b>	<b>139</b>	<b>88</b>	<b>74</b>	<b>718</b>	<b>401</b>
<b>Derivatives</b>	<b>46</b>	<b>(12)</b>	<b>12</b>	<b>75</b>	<b>(120)</b>
<b>Exchange and monetary gain (losses), net</b>	<b>(108)</b>	<b>(228)</b>	<b>(174)</b>	<b>(1,641)</b>	<b>(1,668)</b>
<b>Financial result, net</b>	<b>(470)</b>	<b>(834)</b>	<b>(648)</b>	<b>(3,313)</b>	<b>(3,801)</b>

**Table 18 - EQUITY INCOME BY BUSINESS SEGMENT**

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

US\$ million	4Q11	3Q12	4Q12	2011	%	2012	%
Ferrous minerals	230	189	129	1,019	89.8	722.0	112.8
Coal	14	7	8	71	6.3	43.0	6.7
Base metals	(12)	(56)		101	8.9	(19.0)	(3.0)
Logistics	25	42	26	126	11.1	112.0	17.5
Steel	(87)	(19)	(69)	(162)	(14.3)	(160.0)	(25.0)
Others	(3)	(9)	(9)	(20)	(1.8)	(58.0)	(9.1)
<b>Total</b>	<b>167</b>	<b>154</b>	<b>85</b>	<b>1,135</b>	<b>100.0</b>	<b>640.0</b>	<b>100.0</b>

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

US\$ million	12/31/2011	9/30/2012	12/31/2012
<b>Assets</b>			
Current	21,736	25,316	22,897
Long-term	8,869	9,695	10,323
Fixed	98,123	101,443	98,258
<b>Total</b>	<b>128,728</b>	<b>136,454</b>	<b>131,478</b>
<b>Liabilities</b>			
Current	11,043	10,345	12,585
Long term	38,076	42,392	43,017
Shareholders' equity	79,609	83,717	75,876
Paid-up capital	36,842	37,721	37,559
Reserves	39,939	44,429	36,682
Non controlling interest	1,894	1,567	1,635
Mandatory convertible notes	934		
<b>Total</b>	<b>128,728</b>	<b>136,454</b>	<b>131,478</b>

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

US\$ million	4Q11	3Q12	4Q12	2011	2012
<b>Cash flows from operating activities:</b>					
Net income	4,573	1,587	(2,695)	22,652	5,254
Adjustments to reconcile net income with cash provided by operating activities:					
Depreciation, depletion and amortization	1,168	1,066	1,191	4,122	4,396
Dividends received	205	25	263	1,038	460
Equity in results of affiliates and joint ventures and change in provision for losses on equity investments	(167)	(154)	(85)	(1,135)	(640)
Deferred income taxes	109	(697)	(1,320)	(265)	(3,362)
Impairment			5,664		5,664
Loss on sale of property, plant and equipment	15	103	14	223	216
Gain on sale of investment			114		491
Gain on sale of assets				(1,513)	
Exchange and monetary losses	808	515	247	2,879	1,012
Net unrealized derivative losses	290	95	(9)	490	613
Net interest payable	150	(10)	(32)	194	(24)
Debentures	86	336	(48)	246	109
Others	(68)	(75)	(75)	(183)	(310)
Decrease (increase) in assets:					
Accounts receivable	456	705	125	(821)	1,900
Inventories	(203)	(311)	168	(1,343)	(296)
Recoverable taxes	20	336	(227)	(563)	177
Others	(16)	472	454	(315)	530
Increase (decrease) in liabilities:					
Suppliers	(156)	407	(276)	1,076	(168)
Payroll and related charges	225	80	422	285	185
Income tax	(185)	863	(368)	(2,478)	(143)
Others	202	326	(83)	(93)	531
<b>Net cash provided by operating activities</b>	<b>7,512</b>	<b>5,669</b>	<b>3,444</b>	<b>24,496</b>	<b>16,595</b>
Cash flows from investing activities:					
Short term investments		(685)	439	1,793	(246)
Loans and advances receivable	(58)	317	5	(178)	292
Guarantees and deposits	(59)	(10)	(18)	(186)	(116)
Additions to investments	(345)	(31)	(173)	(504)	(474)
Additions to property, plant and equipment	(6,071)	(4,984)	(4,756)	(16,075)	(15,777)
Proceeds from disposals of investment			608	1,081	974
<b>Net cash used in investing activities</b>	<b>(6,533)</b>	<b>(5,393)</b>	<b>(3,895)</b>	<b>(14,069)</b>	<b>(15,347)</b>
Cash flows from financing activities:					
Short-term debt, net issuances (repayments)	(15)	65	(483)	(96)	67
Loans				18	
Long-term debt	214	3,898	2,019	1,564	8,740
Repayment of long-term debt	(82)	(364)	(257)	(2,621)	(1,186)
Treasury stock	(1,001)			(3,002)	
Transactions of noncontrolling interest	(1,134)		92	(1,134)	(411)
Interest attributed to shareholders	(3,000)		(3,000)	(9,000)	(6,000)
Dividends to minority interest	(40)		(10)	(100)	(45)
<b>Net cash used in financing activities</b>	<b>(5,058)</b>	<b>3,599</b>	<b>(1,639)</b>	<b>(14,371)</b>	<b>1,165</b>
Increase (decrease) in cash and cash equivalents	(4,079)	3,875	(2,090)	(3,944)	2,413
Effect of exchange rate changes on cash and cash equivalents	45	(7)	(29)	(109)	(112)

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

Cash and cash equivalents, beginning of period	7,565	4,083	7,951	7,584	3,531
Cash and cash equivalents, end of period	3,531	7,951	5,832	3,531	5,832
Cash paid during the period for:					
Interest on short-term debt	(1)		(7)	(3)	(8)
Interest on long-term debt	(198)	(312)	(321)	(1,143)	(1,308)
Income tax	(1,060)	(53)	(247)	(7,293)	(1,238)
Non-cash transactions					
Interest capitalized	78	33	176	234	335



Table of Contents

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

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

000 metric tons	4Q11	3Q12	4Q12	2011	2012
Iron ore	69,890	66,205	74,085	257,287	258,061
Pellets	10,856	11,966	10,739	41,861	45,382
Manganese ore	177	446	473	1,032	1,745
Ferroalloys	78	31	34	386	267
Thermal coal	1,796	229	228	5,342	3,134
Metallurgical coal	829	1,148	1,364	2,330	4,864
Nickel	69	55	58	252	232
Copper	113	88	79	302	285
Gold ( 000 oz)	56	48	52	198	168
Silver ( 000 oz)	776	459	443	2,824	2,029
PGMs ( 000 oz)	110	98	77	446	386
Cobalt (metric ton)	805	432	455	2,721	2,033
Potash	144	146	143	568	581
Phosphates					
MAP	294	362	310	907	1,221
TSP	111	245	142	594	713
SSP	458	753	501	2,501	2,446
DCP	128	120	124	556	474
Phosphate rock	754	798	954	2,652	3,314
Others phosphates	39	76	43	164	194
Nitrogen	304	333	333	1,278	1,342
Railroads (million ntk)	5,192	8,036	7,336	23,248	26,229
Ports	6,811	5,481	4,022	25,922	21,236

**Table 22 - AVERAGE SALE PRICES**

US\$/ton	4Q11	3Q12	4Q12	2011	2012
Iron ore	121.38	83.69	93.66	136.07	96.77
Pellets	182.39	140.98	126.73	193.79	147.37
Manganese ore	180.79	127.80	152.22	165.70	134.10
Ferroalloys	1,474.36	1,774.19	1,470.59	1,443.01	1,340.82
Thermal coal	100.71	90.91	93.57	95.54	82.39
Metallurgical coal	220.27	177.97	132.49	235.27	171.38
Nickel	18,333.33	16,509.09	17,500.00	22,680.41	17,866.38
Copper	7,711.71	7,351.83	7,510.35	8,420.73	7,595.44
Platinum (US\$/oz)	1,489.93	1,539.61	1,670.11	1,716.81	1,590.87
Gold (US\$/oz)	1,686.20	1,717.42	1,736.23	1,558.55	1,755.52
Silver (US\$/oz)	26.66	32.31	36.83	31.64	33.82
Cobalt (US\$/lb)	12.96	11.55	10.97	15.63	12.27
Potash	534.72	534.25	552.45	505.28	530.12
Phosphates					
MAP	664.45	656.50	646.89	679.65	646.58

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

TSP	531.61	532.93	526.59	585.98	526.67
SSP	275.74	288.87	299.00	281.53	268.58
DCP	638.51	599.98	593.50	679.63	628.36
Phosphate rock	119.45	135.34	116.35	112.80	124.82
Nitrogen	654.25	624.62	624.62	612.01	597.01

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

<i>%</i>	<b>4Q11</b>	<b>3Q12</b>	<b>4Q12</b>	<b>2011</b>	<b>2012</b>
<b>Bulk materials(1)</b>					
Ferrous minerals	60.5	51.9	44.6	66.1	52.2
Coal	(61.4)	(52.4)	(146.0)	(45.7)	(59.2)
<b>Base metals</b>	<b>3.1</b>	<b>(19.8)</b>	<b>(17.9)</b>	<b>13.5</b>	<b>(14.6)</b>
<b>Fertilizer nutrients</b>	<b>10.2</b>	<b>4.3</b>	<b>3.7</b>	<b>7.0</b>	<b>4.7</b>
<b>Logistics</b>	<b>(17.2)</b>	<b>(6.6)</b>	<b>(17.0)</b>	<b>(6.3)</b>	<b>(14.2)</b>
<b>Total(1)</b>	<b>41.7</b>	<b>29.7</b>	<b>25.1</b>	<b>48.5</b>	<b>31.5</b>

---

(1) excluding non-recurring effects

Table of Contents

## ANNEX 3 RECONCILIATION OF US GAAP and NON-GAAP INFORMATION

**(a) Adjusted EBIT**

US\$ million	4Q11	3Q12	4Q12	2011	2012
Net operating revenues	14,427	10,725	11,723	58,990	45,395
COGS	(6,025)	(6,128)	(6,459)	(23,573)	(24,292)
SG&A	(827)	(519)	(577)	(2,334)	(2,240)
Research and development	(529)	(360)	(460)	(1,674)	(1,478)
Other operational expenses	(1,023)	(529)	(1,287)	(2,810)	(3,106)
<b>Adjusted EBIT(1)</b>	<b>6,023</b>	<b>3,189</b>	<b>2,940</b>	<b>28,599</b>	<b>14,279</b>

---

(1) Excluding non-recurring effects

**(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	4Q11	3Q12	4Q12	2011	2012
Operational cash flow	7,512	5,669	3,444	24,496	16,595
Income tax	1,038	1,077	614	5,547	2,529
FX and monetary losses	(700)	(287)	(73)	(1,238)	656
Financial expenses	212	616	506	1,478	2,157
Net working capital	(429)	(2,878)	(215)	4,006	(2,716)
Other	(237)	(459)	(4,019)	983	(5,142)
<b>Adjusted EBITDA, including non-recurring items</b>	<b>7,396</b>	<b>3,738</b>	<b>257</b>	<b>35,272</b>	<b>14,079</b>

**(c) Net debt**

**RECONCILIATION BETWEEN Total debt AND NET DEBT**

US\$ million	4Q11	3Q12	4Q12	2011	2012
Total debt	23,143	29,211	30,546	23,143	30,546
Cash and cash equivalents	3,531	8,636	6,078	3,531	6,078
Net debt	19,612	20,575	24,468	19,612	24,468

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

US\$ million	4Q11	3Q12	4Q12	2011	2012
Total debt / LTM Adjusted EBITDA(1) (x)	0.7	1.3	1.6	0.7	1.6
Total debt / LTM operational cash flow (x)	0.9	1.4	1.8	0.9	1.8

---

(1) excluding non-recurring items

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

US\$ million	4Q11	3Q12	4Q12	2011	2012
Total debt / EV (%)	17.4	25.3	22.5	17.4	22.5
Total debt / total assets (%)	18.0	21.4	23.2	18.0	23.2

Enterprise value = Market capitalization + Net debt

Table of Contents**(f) LTM Adjusted EBITDA / LTM interest payments**

US\$ million	4Q11	3Q12	4Q12	2011	2012
LTM adjusted EBITDA(1) / LTM interest payments (x)	29.5	18.7	14.6	29.5	14.6
LTM operational profit / LTM interest payments (x)	25.0	14.7	10.9	25.0	10.9

---

(1) excluding non-recurring items

**(G) UNDERLYING EARNINGS**

US\$ million	4Q11	3Q12	4Q12	2011	2012
<b>Underlying earnings</b>	<b>4,853</b>	<b>2,233</b>	<b>1,933</b>	<b>23,234</b>	<b>11,236</b>
Impairment on assets			(4,023)		(4,023)
Gain(loss) on sale of assets			(114)	1,513	(491)
Deferred Income Tax of Impairment			1,327		1,327
Reversal of Deferred Income tax					1,236
Impairment on investments			(1,641)		(1,641)
Shareholders Debentures	(73)	(336)	45	(221)	(465)
Foreign exchange gains (losses) , net	(108)	(245)	(160)	(1,492)	(1,896)
Indexation gains (losses), net		17	(14)	(149)	228
<b>Net Income</b>	<b>4,672</b>	<b>1,669</b>	<b>(2,647)</b>	<b>22,885</b>	<b>5,511</b>

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.

**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.

Vale S.A.  
(Registrant)

Date: February 27, 2013

By:

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

---