

Vale S.A.  
Form 6-K  
February 27, 2014  
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 2014**

**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

3  
42

Table of Contents

BM&F BOVESPA: VALE3, VALE5  
NYSE: VALE, VALE.P  
HKEx: 6210, 6230  
EURONEXT PARIS: VALE3, VALE5  
LATIBEX: XVALO, XVALP

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

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

Investor Relations Department

Rogério T. Nogueira

Viktor Moszkowicz

Carla Albano Miller

Andrea Gutman

Marcelo Bonança

Marcelo Lobato

Marcio Loures Penna

Samantha Pons

Tel: (55 21) 3814-4540

VALE S PERFORMANCE IN 2013

Rio de Janeiro, February 26, 2014 Vale S.A. (Vale) delivered a strong performance in 2013, with solid results across its businesses. 2013 was a year in which the benefits of our ongoing cost-cutting efforts, capex discipline and focus on core business became more visible. It was also a year in which we laid-out the foundations to deliver solid volume and free cash flow growth in the years ahead.

**A year of strong financial and operational performance**

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

- Underlying earnings of US\$ 12.3 billion in 2013, 15.4% above 2012.
- Cash generation measured by adjusted EBITDA(1) of US\$ 22.7 billion, the third highest-ever in our history, with 4Q13 adjusted EBITDA of US\$ 6.6 billion, the highest since 4Q11.
- Record sales volumes of iron ore and pellets (305.6 Mt), copper (353,000 t), gold (297,000 oz) and coal (8.1 Mt), and the highest sales volume of nickel (261,000 t) since 2008.
- Production records in copper (370,000 t), gold (286,000 oz), coal (8.8 Mt) and phosphate rock (8.3 Mt) with highest annual mark in nickel (260,000 t) since 2008.
- Substantial reduction in costs and expenses across all businesses, saving US\$ 2.8 billion(2) in 2013 vs. 2012, despite the increases in sales volumes.
- Distribution of a strong dividend of US\$ 4.5 billion in 2013, and commitment to a minimum dividend of US\$ 4.2 billion in 2014, corresponding to a dividend yield of 6% at the current share price.

### **A year of collecting benefits from cost-cutting, capex discipline and focus on core business**

- Reduction of cost of goods sold (COGS) of US\$ 972 million (-3.7%) in 2013, despite the increases in sales volumes; decline in sales, general and administrative (SG&A) of US\$ 865 million (-38.6%), reflecting a leaner organization; and decrease in research and development expenditures (R&D) of US\$ 663 million (-44.9%), reflecting a more focused exploration and project development portfolio.
- Reduction in capex, ex-R&D expenses, of US\$ 2 billion in 2013 vs. 2012, reaching US\$ 14.2 billion in 2013 and marking another consecutive year of capex reduction.
- Divestment of US\$ 6.0 billion(3) of non-core assets, reiterating our continued commitment to the simplification of our asset base and management focus.

---

(1) Throughout this report, adjusted EBITDA and adjusted EBIT figures exclude non-recurring items. For more information, please see notes (a) and (b) in the Annex 3 of this report.

(2) Excludes depreciation and amortization and the one-off effect of CFEM provision in 3Q12 (US\$ 542 million).

(3) Includes the sale of VLI still subject to conditions precedent (US\$ 2.056 billion).



Table of Contents

**A year for removing uncertainties and establishing foundations**

- Settlement of the income tax and social contribution on earnings of our non-Brazilian subsidiaries, under the Income Tax Settlement Program (REFIS) reducing uncertainties and allowing management to focus on the key strategic and operational business issues.
- Completion of projects required to grow iron ore production in the years 2014 to 2016: Conceição Itabiritos, Plant 2 (formerly known as Additional 40 Mtpy), and CLN 150, including Pier IV with its first berth in Ponta da Madeira.
- Positive progress on the discussion regarding caves with recent authorization to mine additional N4E mine areas, supporting the 2014 production target of 120 Mt in Carajás in 2014 and increasing the confidence in the growth program for 2015 and 2016.
- Granting of all the implementation licenses for S11D and associated logistics, paving the way for growth in iron ore production beyond 2016.
- Ramp-up of Base Metals projects (Salobo I close to nominal capacity, restart of Onça Puma and continued progress in New Caledonia) and completion of remaining key projects (Long Harbour and Totten), marking the end of an investment cycle and positioning the business to achieve its US\$ 4 to US\$ 6 billion cash generation target in the coming years.

Underpinning our good performance this year is a relentless focus on Health and Safety. Our health and safety indicators improved in 2013 with our total recordable injury frequency rate (TRIFR), falling from 2.8 to 2.6(4). We remain focused towards achieving zero harm in our operations.

Looking ahead, we are committed to deliver on our promises. We will maintain our business focus and discipline on cost and capex while diligently working to complete our ongoing projects and deliver volume growth.

We are focused on shareholder value creation and committed to using our free cash flow to appropriately reduce our debt levels and distribute increasing dividends to our shareholders.

---

(4) Per million hours worked.



Table of Contents**SELECTED FINANCIAL INDICATORS<sup>1</sup>**

<b>US\$ million</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
Gross operating revenues	48,994	48,753	62,345	46,481	23,939
Adjusted EBIT	17,537	14,430	28,748	21,695	6,057
Adjusted EBIT margin (%)	36.5	30.3	47.2	47.9	26.0
Adjusted EBITDA	22,679	19,178	33,730	26,116	9,165
Adjusted EBITDA margin (%)	47.2	40.2	55.3	57.7	39.3
Underlying earnings	12,261	10,622	23,248	17,289	4,925
Underlying earnings per share on a fully diluted basis (US\$ / share)	2.38	2.08	4.43	3.26	0.92
Total gross debt	29,727	30,546	23,143	25,343	22,880
Total gross debt/ adjusted EBITDA (x)	1.3	1.6	0.7	1.0	2.5
Capital expenditures (excluding R&D and acquisitions)	14,233	16,196	16,252	11,569	8,002

(1)The 2011-2013 figures were adjusted under IFRS and consider freight in revenues and COGS. The 2009-2010 figures were calculated in accordance with USGAAP.

<b>US\$ million</b>	<b>4Q13</b>	<b>3Q13</b>	<b>4Q12</b>
Gross operating revenues	13,606	12,910	12,537
Adjusted EBIT	5,002	4,777	2,971
Adjusted EBIT margin (%)	37.3	37.7	24.2
Adjusted EBITDA	6,637	5,883	4,434
Adjusted EBITDA margin (%)	49.5	46.4	36.2
Underlying earnings	3,212	3,639	1,871
Underlying earnings per share on a fully diluted basis (US\$ / share)	0.62	0.71	0.36
Capital expenditures (excluding R&D and acquisitions)	3,840	3,231	4,999

Except where otherwise indicated the operational and financial information in this release is based on the consolidated figures in accordance with IFRS and, with the exception of information on investments and behavior of markets, quarterly financial statements are reviewed by the company's independent auditors. The main subsidiaries that are consolidated are the following: Compañía Minera 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

OPERATING REVENUES

**Annual performance**

In 2013, operating revenues totaled US\$ 48.994 billion, slightly above 2012. The ferrous minerals business contributed with 72.0% of the operating revenues while the base metals business contributed with 14.9% despite weaker nickel, copper and gold prices in 2013. Fertilizers contribution to revenues decreased to 6.1% due to a combination of lower sales volumes and prices during the year.

Asia represented 54.2% of total revenues in 2013 and China alone represented 38.6%. The Americas share decreased to 23.7%, due to lower sales volumes in Brazil, which represented 17.2% of sales. Europe recovered some share reaching 17.9%. Revenues from sales to the Middle East were 3.0% in 2013. The rest of the world contributed with 1.2% in 2013.

There was an increase of US\$ 241 million in operating revenues in 2013 vs. 2012. The positive changes year-on-year were the higher sales volumes of base metals (US\$ 1.373 billion), iron ore (US\$ 674 million) and metallurgical coal (US\$ 427 million) and higher prices of iron ore (US\$ 490 million). Those were partly offset by lower prices of base metals (-US\$ 1.209 billion), fertilizers (-US\$ 393 million) and metallurgical coal (-US\$ 310 million) and the decrease in sales volumes of pellets (-US\$ 654 million) and fertilizers (-US\$ 407 million).

**Quarterly performance**

Operating revenues reached US\$ 13.606 billion in 4Q13, up by 5.4% versus 3Q13, driven mainly by higher iron ore sales volumes and prices, which contributed with 80% of the increase in revenues, followed by higher pellets sales volumes.

Table of Contents**GROSS OPERATING REVENUE BY BUSINESS AREAS**

US\$ million	4Q13	3Q13	4Q12	2013	% 2013	2012	% 2012
<b>Ferrous minerals</b>	<b>10,177</b>	<b>9,482</b>	<b>8,998</b>	<b>35,267</b>	<b>72.0</b>	<b>34,866</b>	<b>71.5</b>
Iron ore	8,314	7,753	7,441	28,429	58.0	27,202	55.8
Pellets	1,677	1,525	1,396	6,158	12.6	6,757	13.9
Manganese ore	99	119	72	333	0.7	234	0.5
Ferroalloys	62	54	50	239	0.5	358	0.7
Pellet plant operation services						19	
Others	25	31	40	110	0.2	296	0.6
<b>Coal</b>	<b>333</b>	<b>211</b>	<b>202</b>	<b>1,010</b>	<b>2.1</b>	<b>1,092</b>	<b>2.2</b>
Metallurgical coal	304	200	181	951	1.9	834	1.7
Thermal coal	29	11	21	59	0.1	258	0.5
<b>Base metals</b>	<b>1,897</b>	<b>1,859</b>	<b>1,811</b>	<b>7,299</b>	<b>14.9</b>	<b>7,133</b>	<b>14.6</b>
Nickel	957	865	1,015	3,889	7.9	4,145	8.5
Copper	647	734	593	2,367	4.8	2,168	4.4
PGMs	132	116	75	477	1.0	383	0.8
Gold	118	107	90	398	0.8	294	0.6
Silver	11	10	14	43	0.1	63	0.1
Cobalt	17	17	11	71	0.1	55	0.1
Others	15	10	13	54	0.1	24	
<b>Fertilizer nutrients</b>	<b>591</b>	<b>812</b>	<b>930</b>	<b>2,977</b>	<b>6.1</b>	<b>3,777</b>	<b>7.7</b>
Potash	50	63	79	222	0.5	308	0.6
Phosphates	423	621	622	2,120	4.3	2,583	5.3
Nitrogen	95	104	208	543	1.1	801	1.6
Others	23	24	21	92	0.2	85	0.2
<b>Logistics services - general cargo</b>	<b>333</b>	<b>404</b>	<b>344</b>	<b>1,508</b>	<b>3.1</b>	<b>1,348</b>	<b>2.8</b>
Railroads	260	315	281	1,210	2.5	1,202	2.5
Ports	73	89	63	298	0.6	146	0.3
<b>Others</b>	<b>275</b>	<b>142</b>	<b>252</b>	<b>932</b>	<b>1.9</b>	<b>536</b>	<b>1.1</b>
<b>Total</b>	<b>13,606</b>	<b>12,910</b>	<b>12,537</b>	<b>48,994</b>	<b>100.0</b>	<b>48,753</b>	<b>100.0</b>

**GROSS OPERATING REVENUE BY DESTINATION**

US\$ million	4Q13	3Q13	4Q12	2013	% 2013	2012	% 2012
<b>North America</b>	<b>610</b>	<b>539</b>	<b>547</b>	<b>2,383</b>	<b>4.9</b>	<b>2,378</b>	<b>4.9</b>
<b>South America</b>	<b>2,064</b>	<b>2,346</b>	<b>2,246</b>	<b>9,193</b>	<b>18.8</b>	<b>9,905</b>	<b>20.3</b>
Brazil	1,905	2,129	2,113	8,417	17.2	9,126	18.7
Others	160	217	133	776	1.6	779	1.6
<b>Asia</b>	<b>7,868</b>	<b>7,298</b>	<b>7,349</b>	<b>26,558</b>	<b>54.2</b>	<b>26,617</b>	<b>54.6</b>
China	5,687	5,240	5,411	18,920	38.6	17,636	36.2
Japan	1,163	1,178	1,010	4,035	8.2	4,931	10.1
Others	1,018	880	928	3,602	7.4	4,050	8.3
<b>Europe</b>	<b>2,432</b>	<b>2,252</b>	<b>1,921</b>	<b>8,762</b>	<b>17.9</b>	<b>8,202</b>	<b>16.8</b>
Germany	920	877	826	3,285	6.7	2,937	6.0
Italy	271	201	204	1,055	2.2	1,311	2.7
Others	1,241	1,174	891	4,422	9.0	(4,230)	(8.7)
<b>Middle East</b>	<b>458</b>	<b>325</b>	<b>329</b>	<b>1,494</b>	<b>3.0</b>	<b>1,162</b>	<b>2.4</b>
<b>Rest of the World</b>	<b>173</b>	<b>149</b>	<b>145</b>	<b>604</b>	<b>1.2</b>	<b>490</b>	<b>1.0</b>
<b>Total</b>	<b>13,606</b>	<b>12,910</b>	<b>12,537</b>	<b>48,994</b>	<b>100.0</b>	<b>48,753</b>	<b>100.0</b>



Table of Contents

**COSTS**

Costs and expenses, net of depreciation charges and the one-off effect of CFEM provision in 3Q12 (US\$ 542 million), showed a material contraction in 2013, with savings of US\$ 2.8 billion. Costs dropped US\$ 1.063 billion and expenses US\$ 1.708 billion when compared to 2012, despite the fact that Vale recorded US\$ 394 million(5) in one-off expenses related to the stoppage of Rio Colorado.

**Cost of Goods Sold (COGS)**

**Annual performance**

COGS was US\$ 25.477 billion in 2013, showing a decrease of US\$ 972 million when compared to the US\$ 26.449 billion recorded in 2012.

COGS reductions of US\$ 972 million can be broken by the following factors: (i) US\$ 1.638 billion of cost reduction due to nominal exchange rate variations, (ii) US\$ 1.692 billion of cost increase due to higher volumes (iii) US\$ 1.026 billion due to nominal cost reduction in the currencies in which we operate, despite inflation in those countries.

The analysis of individual cost items are net of the effects of volumes and exchange rate changes, with the exception of personnel costs, energy, acquisition of products and depreciation. The cost analysis for each business segment is part of the Performance of the Business Segments section.

**Quarterly performance**

In 4Q13, COGS was US\$ 6.983 billion, increasing US\$ 20 million, after adjusting for higher volumes (US\$ 389 million) and exchange rate changes (US\$ 23 million)(6). The main negative underlying factors were personnel (US\$ 76 million) and energy costs (US\$ 39 million), which were partially offset by materials (US\$ 25 million) and outsourced services (US\$ 23 million). The increase in personnel costs refers to the two-year collective agreement settled with our employees in Brazil, and a significant part of it is the one-off impact on accrued vacation and profit sharing provisions.

**TOTAL COST OF GOODS SOLD - 4Q13 x 3Q13**

US\$ million	3Q13	Volume	Variance drivers		4Q13
				Others	

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

			Exchange rate		Total Variation 4Q13x 3Q13	
<b>Outsourced services</b>	<b>1,069</b>	<b>-14</b>	<b>4</b>	<b>-23</b>	<b>-33</b>	<b>1,036</b>
<b>Materials</b>	<b>1,077</b>	<b>37</b>	<b>13</b>	<b>-25</b>	<b>25</b>	<b>1,102</b>
<b>Energy (Electricity, fuel &amp; gas)</b>	<b>652</b>	<b>-6</b>	<b>3</b>	<b>39</b>	<b>36</b>	<b>688</b>
<b>Acquisition of products</b>	<b>286</b>	<b>172</b>	<b>-1</b>	<b>-33</b>	<b>138</b>	<b>424</b>
Iron ore and pellets	101			27	27	128
Base metals products	114	75		-61	14	128
Other products	71	96	-1	2	97	168
<b>Personnel</b>	<b>868</b>	<b>-3</b>	<b>2</b>	<b>76</b>	<b>75</b>	<b>943</b>
<b>Freight</b>	<b>872</b>	<b>164</b>			<b>164</b>	<b>1,036</b>
<b>Depreciation</b>	<b>945</b>	<b>1</b>	<b>2</b>	<b>84</b>	<b>87</b>	<b>1,032</b>
<b>Shared services</b>	<b>103</b>	<b>-18</b>			<b>-18</b>	<b>85</b>
<b>Others</b>	<b>679</b>	<b>55</b>	<b>2</b>	<b>-99</b>	<b>42</b>	<b>637</b>
<b>Total</b>	<b>6,551</b>	<b>389</b>	<b>23</b>	<b>20</b>	<b>432</b>	<b>6,983</b>

Disclaimer: The effects of volume, exchange rate and other variations are not accounting figures. Calculated in a simplified way for management purposes.

---

(5) Excluding depreciation.

(6) COGS exposure in 4Q13 was made up as follows: 53% Brazilian Reais, 30% US dollar, 13% Canadian dollar, 3% Australian dollar and 1% other currencies.

Table of Contents

Outsourced services were US\$ 1.036 billion, a reduction of US\$ 33 million when compared to 3Q13. After adjusting for volumes (-US\$ 14 million) and exchange rate variations (US\$ 4 million), there was a net decrease of US\$ 23 million, mainly as a consequence of lower costs for base metals (US\$ 41 million), with the end of scheduled maintenance at Sudbury and Thompson in 3Q13.

Cost of materials was US\$ 1.102 billion, up US\$ 25 million against 3Q13. After adjusting for volumes (US\$ 37 million) and currency price changes (US\$ 13 million), there was a net decrease of US\$ 25 million, as a consequence of lower costs for fertilizers (US\$ 14 million) driven by lower sulfur and ammonia prices, and lower costs for nickel materials (US\$ 27 million), reflecting the end of the annual scheduled maintenance in Sudbury and Thompson.

Costs of energy (electricity, fuel and gas) reached US\$ 688 million, an increase of US\$ 36 million when compared to 3Q13. Costs with electricity were US\$ 181 million, US\$ 5 million higher than in 3Q13. Fuel and gases costs came to US\$ 507 million, US\$ 31 million higher than in 3Q13. This reflects mainly the increase of 8% in the price of diesel oil in Brazil.

The cost of purchasing products, ore and finished products from third parties amounted to US\$ 424 million against US\$ 286 million in 3Q13. The most relevant third party purchases were:

- The purchase of iron ore amounting to US\$ 128 million, against US\$ 101 million in the previous quarter as the volume of iron ore bought from smaller miners reached 3.8 Mt in 4Q13 compared to 2.6 Mt in 3Q13.
- The purchase of base metals products which increased to US\$ 128 million from US\$ 114 million in 3Q13 as a result of higher nickel and copper volumes purchased from third parties. We bought 1,700 t of finished and intermediary nickel against 1,600 t in 3Q13. Additionally, we bought 5,400 t of copper against 5,300 t in 3Q13.
- The costs of acquiring other products increased to US\$ 168 million from US\$ 71 million, partially reflecting a surplus in our pre-existing long term energy contracts, which was sold in the spot market. The associated revenues are recognized under Other Revenues.

Personnel costs amounted to US\$ 943 million, an increase of US\$ 75 million against the US\$ 868 million in 3Q13. The two-year collective agreement settled with our employees in Brazil increased costs by US\$ 64 million as a result of the 6.0% wage rise in Brazilian Reais in November 2013 and the one-off impact of the increase on accrued vacation and profit sharing provisions. The semi-annual bonuses for employees working in remote areas in Brazil (Carajás, Sossego and Onça Puma) were paid during 4Q13 and amounted to US\$ 12 million.

Maritime freight costs reached US\$ 1.036 billion in 4Q13, which, as stated previously, are fully accrued as cost of goods sold. Freight costs were up US\$ 164 million, when compared to 3Q13, as a result of the increase in CFR shipments, different routes used and higher rates on freights contracted on a spot basis.

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

Depreciation and amortization amounted to US\$ 1.032 billion, against US\$ 945 million in 3Q13, mainly reflecting higher depreciation costs of iron ore and pellets (US\$ 41 million) and nickel (US\$ 58 million).

Costs with shared services decreased to US\$ 85 million in 4Q13, down from US\$ 103 million in the previous quarter.

Other operational costs reached US\$ 637 million, decreasing from the US\$ 679 million in 3Q13. The TFRM was US\$ 54 million in 4Q13, in line with 3Q13. CFEM, Brazil's federal mining royalty, was US\$ 131 million, US\$ 25 million higher than 3Q13, mostly because of the higher average price for iron ore.



Table of Contents

## COGS

US\$ million	4Q13	3Q13	4Q12	2013	% 2013	2012	% 2012
<b>Outsourced services</b>	<b>1,036</b>	<b>1,069</b>	<b>1,153</b>	<b>3,951</b>	<b>15.5</b>	<b>4,769</b>	<b>18.0</b>
Cargo freight	214	291	294	1,059	4.2	1,191	4.5
Maintenance of equipment and facilities	179	197	179	706	2.8	792	3.0
Operational Services	212	147	296	591	2.3	1,131	4.3
Others	431	434	385	1,595	6.3	1,656	6.3
<b>Material</b>	<b>1,102</b>	<b>1,077</b>	<b>995</b>	<b>4,152</b>	<b>16.3</b>	<b>4,264</b>	<b>16.1</b>
Spare parts and maintenance equipment	332	321	301	1,222	4.8	1,417	5.4
Inputs	501	488	514	1,898	7.5	2,018	7.6
Tires and conveyor belts	56	49	59	297	1.2	233	0.9
Others	212	219	121	735	2.9	595	2.2
<b>Energy</b>	<b>688</b>	<b>652</b>	<b>749</b>	<b>2,600</b>	<b>10.2</b>	<b>2,937</b>	<b>11.1</b>
Fuel and gases	507	476	530	1,934	7.6	2,071	7.8
Electric energy	181	176	218	666	2.6	866	3.3
<b>Acquisition of products</b>	<b>424</b>	<b>286</b>	<b>334</b>	<b>1,406</b>	<b>5.5</b>	<b>1,368</b>	<b>5.2</b>
Iron ore and pellets	128	101	115	405	1.6	699	2.6
Base metals products	128	97	70	461	1.8	339	1.3
Other products	168	88	148	541	2.1	330	1.2
<b>Personnel</b>	<b>943</b>	<b>868</b>	<b>923</b>	<b>3,433</b>	<b>13.5</b>	<b>3,545</b>	<b>13.4</b>
<b>Maritime freight</b>	<b>1,036</b>	<b>872</b>	<b>922</b>	<b>3,190</b>	<b>12.5</b>	<b>2,801</b>	<b>10.6</b>
<b>Shared services</b>	<b>85</b>	<b>103</b>	<b>73</b>	<b>363</b>	<b>1.4</b>	<b>303</b>	<b>1.1</b>
<b>Others</b>	<b>637</b>	<b>679</b>	<b>741</b>	<b>2,504</b>	<b>9.8</b>	<b>2,673</b>	<b>10.1</b>
<b>Total Costs before depreciation and amortization</b>	<b>5,951</b>	<b>5,606</b>	<b>5,889</b>	<b>21,598</b>	<b>84.8</b>	<b>22,660</b>	<b>85.7</b>
Depreciation and amortization	1,032	945	1,083	3,879	15.2	3,789	14.3
<b>Total COGS (Cost of Goods Sold)</b>	<b>6,983</b>	<b>6,551</b>	<b>6,972</b>	<b>25,477</b>	<b>100.0</b>	<b>26,449</b>	<b>100.0</b>

## Expenses

## Annual performance

In 2013, expenses were US\$ 5.036 billion, a decrease of US\$ 2.321 billion from US\$ 7.357 billion in 2012, mainly due to lower Sales, General and Administrative expenses (SG&A), Research and Development expenditures (R&D) and other expenses, which were partially offset by higher pre-operating and stoppage expenses(7). Excluding the effect of depreciation (US\$ 429 million), total expenses amounted to US\$ 4.607 billion a decrease of US\$ 1.708 billion(8) when compared to 2012.

The simplification of our organizational structure was the main driver for the reduction of US\$ 865 million in SG&A. In 2013, SG&A amounted to US\$ 1.375 billion, decreasing 38.6% when compared to US\$ 2.240 billion in 2012, with savings much higher than our 20% target for the year. In 2014, our target is to further reduce SG&A expenses by 10%.

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

In 2013, R&D expenditures were US\$ 815 million, being US\$ 285 million lower than our budget of US\$ 1.1 billion for the year and US\$ 663 million lower than 2012, a decrease of 45.0%. The reduction of our portfolio of projects and the closure of exploration offices around the world were mostly responsible for this result. In 2014, we will continue focusing on having an efficient exploration portfolio.

Pre-operating and stoppage expenses were US\$ 1.859 billion in 2013, an increase of US\$ 267 million when compared to 2012. Pre-operating expenses were in line with the previous year's numbers at US\$ 1.231 billion in 2013 against US\$ 1.240 billion in 2012. On the other hand, stoppage expenses increased by US\$ 276 million, amounting to US\$ 628 million, mainly reflecting the US\$ 381 million in expenses with Rio Colorado in 2013.

---

(7) As previously mentioned, we revised the concept of pre-operating, stoppage and idle capacity expenses to pre-operating and stoppage.

(8) Excluding the effect of the CFEM provision (US\$ 542 million) in 3Q12.

Table of Contents

Other expenses totaled US\$ 987 million in 2013, against US\$ 2.047 billion in 2012 as a result of lower contingencies and provisions made during 2013. For instance, in 3Q12 we had the one-off effect of CFEM expenses, which amounted to US\$ 542 million.

**Quarterly performance**

SG&A(9) was US\$ 362 million in 4Q13, US\$ 47 million above 3Q13. Higher SG&A expenses were driven by an increase in administrative expenses (US\$ 65 million), mainly due to the higher third party services expenses (US\$ 27 million). Sales expenses were down by US\$ 18 million, amounting to US\$ 11 million in 4Q13.

- Despite the two-year collective agreement settled with our employees in Brazil, which resulted in the 6.0% wage rise in Brazilian Reais in November 2013, expenses with personnel increased by only US\$ 4 million, amounting to US\$ 121 million in 4Q13.

R&D expenditure totaled US\$ 276 million in 4Q13, higher than the US\$ 205 million in 3Q13.

Pre-operating and stoppage expenses(9) decreased to US\$ 473 million in 4Q13 from US\$ 549 million in 3Q13.

- Pre-operating expenses were US\$ 321 million in 4Q13, determined by expenses related to VNC (US\$ 167 million), Long Harbour (US\$ 65 million) and S11D (US\$ 27 million). VNC expenses were up US\$ 38 million when compared to 3Q13, due to the operational problems with the effluent pipeline, which not only cost US\$ 27 million to repair but also caused production to stop and prevented further dilution of expenditures over production and sales. The repair work was completed successfully and the plant began a sequential restart on January 1, 2014. In 2013 VNC pre-operating expenses dropped to US\$ 606 million from US\$ 767 million in 2012. We continue to aim at reaching break-even at VNC during 2014, in which costs and expenses will be matched by revenues.

- Stoppage expenses reached US\$ 152 million in 4Q13, mainly reflecting Rio Colorado expenses (US\$ 102 million) and the shutdown of pellet plants, Tubarão I and II and São Luís (US\$ 24 million) and Onça Puma (US\$ 22 million).

Other operating expenses(9) were US\$ 30 million higher than 3Q13, amounting to US\$ 310 million in 4Q13.

**EXPENSES**

US\$ million	4Q13	3Q13	4Q12	2013	% 2013	2012	% 2012
--------------	------	------	------	------	--------	------	--------

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

<b>SG&amp;A</b>	<b>362</b>	<b>315</b>	<b>577</b>	<b>1,375</b>	<b>27.3</b>	<b>2,240</b>	<b>30.4</b>
<b>Administrative</b>	<b>351</b>	<b>286</b>	<b>527</b>	<b>1,269</b>	<b>25.2</b>	<b>1,960</b>	<b>26.6</b>
Personnel	121	117	217	531	10.5	806	11.0
Services	116	89	144	343	6.8	489	6.6
Depreciation	52	46	69	194	3.9	240	3.3
Others	62	34	97	201	4.0	425	5.8
<b>Selling</b>	<b>11</b>	<b>29</b>	<b>50</b>	<b>106</b>	<b>2.1</b>	<b>280</b>	<b>3.8</b>
<b>R&amp;D</b>	<b>276</b>	<b>205</b>	<b>460</b>	<b>815</b>	<b>16.2</b>	<b>1,478</b>	<b>20.1</b>
<b>Pre-operating and stoppage expenses</b>	<b>473</b>	<b>549</b>	<b>590</b>	<b>1,859</b>	<b>36.9</b>	<b>1,592</b>	<b>21.6</b>
<b>Other operating expenses</b>	<b>310</b>	<b>280</b>	<b>688</b>	<b>987</b>	<b>19.6</b>	<b>2,047</b>	<b>27.8</b>
<b>Total(1)</b>	<b>1,421</b>	<b>1,349</b>	<b>2,315</b>	<b>5,036</b>	<b>100.0</b>	<b>7,357</b>	<b>100.0</b>

---

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

---

(9) Including depreciation.

Table of Contents

CASH GENERATION AND OPERATING INCOME

**Annual performance**

Cash generation, measured by adjusted EBITDA, reached US\$ 22.679 billion in 2013, showing an increase of 18.3% from the US\$ 19.178 billion in 2012. The increase in adjusted EBITDA was mainly due to our efforts to cut costs and expenses which resulted in a year-over-year reduction of US\$ 2.8 billion in 2013.

Operating income, measured by adjusted EBIT, showed a significant improvement versus the previous year, reaching US\$ 17.537 billion in 2013, 21.5% higher than the US\$ 14.430 billion in 2012. Our adjusted EBIT margin increased to 36.5% in 2013 versus 30.3% in 2012.

The share of ferrous minerals in cash generation in 2013 decreased to 95.0% from 97.6% in 2012, while base metals improved to 7.2% from 3.1% in the previous year. The share of logistics was 0.5%, while fertilizers and coal had a negative contribution of -0.2% and -2.0%, respectively.

**Quarterly performance**

Adjusted EBITDA was US\$ 6.637 billion in 4Q13, 12.8% higher than 3Q13. The positive effects of higher prices of ferrous minerals and coal (US\$ 574 million) and higher dividends received from non-consolidated affiliates (US\$ 437 million) were the main factors for the increase in adjusted EBITDA versus 3Q13. Those were partly mitigated by lower sales volumes of fertilizers, general cargo logistics and others (US\$ 168 million) and lower prices of base metals, fertilizers and general cargo logistics (US\$ 136 million).

Adjusted EBIT was US\$ 5.002 billion in 4Q13, slightly higher than 3Q13. Adjusted EBIT margin was 37.3% in 4Q13, lower than the 37.7% in 3Q13.

Main adjustments to adjusted EBIT and adjusted EBITDA in 4Q13 were: (i) impairment on assets, mainly related to the Rio Colorado project, (US\$ 2.298 billion); (ii) loss in the sale of Tres Valles (US\$ 215 million); and (iii) negative impact of fair value from the sale of VLI (US\$ 151 million).

**ADJUSTED EBITDA**

US\$ million	4Q13	3Q13	4Q12	2013	2012
--------------	------	------	------	------	------

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

Gross operating revenues	13,606	12,910	12,537	48,994	48,753
Net operating revenues	13,406	12,677	12,258	48,050	47,694
COGS	(6,983)	(6,551)	(6,972)	(25,477)	(26,449)
SG&A	(362)	(315)	(577)	(1,375)	(2,240)
Research and development	(276)	(205)	(460)	(815)	(1,478)
Other operational expenses	(783)	(829)	(1,278)	(2,846)	(3,097)
<b>Adjusted EBIT</b>	<b>5,002</b>	<b>4,777</b>	<b>2,971</b>	<b>17,537</b>	<b>14,430</b>
Depreciation, amortization & exhaustion	1,136	1,044	1,200	4,308	4,288
Dividends received	499	62	263	834	460
<b>Adjusted EBITDA</b>	<b>6,637</b>	<b>5,883</b>	<b>4,434</b>	<b>22,679</b>	<b>19,178</b>
Non-recurring effects excluded from analysis	(2,664)	(58)	(4,152)	(2,722)	(5,071)

**ADJUSTED EBITDA BY BUSINESS AREA**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Ferrous minerals	6,654	5,626	4,435	21,543	18,720
Coal	-82	-72	-221	-455	-389
Base metals	243	303	133	1,639	602
Fertilizer nutrients	-105	-64	144	-54	630
Logistics	-2	77	18	119	83
Others	-71	13	-75	-113	-468
<b>Total</b>	<b>6,637</b>	<b>5,883</b>	<b>4,434</b>	<b>22,679</b>	<b>19,178</b>

Table of Contents

NET EARNINGS

**Annual performance**

Underlying earnings were US\$ 12.261 billion in 2013, equal to US\$ 2.38 per share on a fully diluted basis, increasing 15.4% from 2012.

The non-recurring effects, mostly non-cash items, excluded to calculate the underlying earnings totaled US\$ 11.677 billion and are comprised of: (i) net financial expenses (US\$ 2.637 billion) related to the REFIS, (ii) impairment on assets, mainly related to the Rio Colorado potash project, (US\$ 2.298 billion), (iii) foreign exchange and monetary losses (US\$ 2.928 billion), (iv) foreign exchange and interest rate risk derivatives losses (US\$ 861 million), (v) tax effects of the adjustments described before (-US\$ 1.402 billion) and (vi) REFIS income tax effects after deductions (US\$ 3.832 billion). The REFIS effects are detailed in the box Income tax settlement program (REFIS) .

Our net earnings as reported under IFRS were US\$ 584 million in 2013, equal to US\$ 0.11 per share, against US\$ 5.454 billion in the previous year. The positive results in spite of all the non-recurring effects attest to the quality of our assets and operations, which were able to absorb material one-off impacts.

**Quarterly performance**

In 4Q13, underlying earnings were US\$ 3.212 billion, equal to US\$ 0.62 per share, after excluding non-recurring effects, especially related to REFIS and impairments. Net earnings, under IFRS, accumulated a loss of US\$ 6.451 billion in 4Q13.

Net financial expenses were US\$ 4.159 billion in 4Q13, against US\$ 503 million in the previous quarter, as detailed on table FINANCIAL RESULTS in Annex 1. The main items in net financial results include: (i) financial expenses of US\$ 3.302 billion, mainly due to the financial charges related to the REFIS, (ii) financial revenues of US\$ 350 million, against US\$ 77 million in 3Q13 as result of the sale of Hydro shares (US\$ 214 million), (iii) foreign exchange and monetary losses of US\$ 934 million, due to the BRL depreciation of 5.0% against the USD in 4Q13 and (iv) mark-to-market losses on derivatives of US\$ 273 million.

Equity income from affiliated companies was US\$ 116 million in 4Q13, a slight decrease relative to the US\$ 128 million in 3Q13. Most of the equity income in the quarter came from the ferrous minerals business, with Samarco accounting for US\$ 122 million and MRS US\$ 33 million. Results with CSA partially reduced equity income by US\$ 46 million.

**UNDERLYING EARNINGS**

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

US\$ million	4Q13	3Q13	4Q12	2013	2012
<b>Underlying earnings</b>	<b>3,212</b>	<b>3,639</b>	<b>1,871</b>	<b>12,261</b>	<b>10,622</b>
<b>Items excluded from basic earnings</b>					
Impairment on assets	-2,298		-4,023	-2,298	-4,023
Gain(loss) on sale of assets	-366	-58	-129	-424	-506
Deferred Income Tax of Impairment			1,627		1,627
Reversal of Deferred Income tax					1,236
Impairment on investments			-1,941		-1,941
Shareholders Debentures	-16	-109	45	-381	-464
Foreign exchange and monetary variation gains (losses), net	-934	-110	-139	-2,928	-1,890
Currency and interest rate swaps	-226	69	-2	-861	-272
Gain (loss) on sale of investments	41			41	
Fair value on financial instruments available for sale	214			214	
Other	27			27	
Financial expenses - REFIS	-2,637			-2,637	
Tax effects of the adjustments	364	71	77	1,402	1,065
Income taxes - REFIS	-3,832			-3,832	
<b>Net Income</b>	<b>-6,451</b>	<b>3,502</b>	<b>-2,615</b>	<b>584</b>	<b>5,454</b>



Table of Contents

## INCOME TAX SETTLEMENT PROGRAM (REFIS)

In November 2013, we decided to participate in the federal tax settlement program (REFIS) for payment of Brazilian corporate income tax and social contribution on the net income of our non-Brazilian subsidiaries and affiliates from 2003 to 2012.

Under the conditions of this REFIS, the debts due until December 31, 2012 estimated at R\$ 45.0 billion (US\$ 19.605 billion) could be paid as follows: (i) upfront payment with 100% reduction of penalty, interest and statutory fees or (ii) 20% down payment at the time of joining the program and remaining part in 180 monthly installments adjusted by the Central Bank of Brazil policy interest rate (SELIC), with 80% reduction of penalties, 50% reduction of interest and 100% reduction of statutory fees. In addition, accumulated losses could be used as payment.

We elected the upfront payment of taxes for 2003, 2004 and 2006, and payment in installments of principal, penalties and interest for the remainder years of 2005 and 2007 to 2012 resulting in an amount due of R\$ 22.325 billion, net of accumulated losses. Therefore, by the end of November, we announced R\$ 5.965 billion (US\$ 2.555 billion) of upfront tax payments and R\$16.360 billion (US\$ 7.037 billion) to be paid in 179 monthly installments adjusted by the SELIC.

The impact on net income in 2013 due to the recognition of the REFIS program was R\$ 14.814 billion (US\$ 6.469 billion), with R\$ 6.039 billion (US\$ 2.637 billion) of financial expenses and R\$ 8.775 billion (US\$ 3.832 billion) of income taxes.

As the table below demonstrates, the actual net income impact is lower than the original impact estimated in November, 2013 at R\$ 20.725 billion (US\$ 8.914 billion). The reduced impact is a result of the Brazilian Law 12,865/2013, which with the modification brought by the Provisional Measure 627/2013 states, explicitly, in its paragraph 15 of the article 40 that the REFIS reduction of fines, interests and statutory fees shall not be considered in the tax base for Brazilian federal tax purposes.

**REFIS - NET INCOME IMPACT**

<b>R\$ million</b>	<b>Contingencies without REFIS</b>	<b>November, 2013 REFIS estimates</b>	<b>Actual REFIS, Law 12,865</b>
Principal REFIS	(17,084)	(17,084)	(17,084)
Deductions(1)	8,309	2,398	8,309
<b>Net tax impact</b>	<b>(8,775)</b>	<b>(14,686)</b>	<b>(8,775)</b>
<b>Financial expenses(2)</b>	<b>(27,916)</b>	<b>(6,039)</b>	<b>(6,039)</b>
<b>Net income impact</b>	<b>(36,691)</b>	<b>(20,725)</b>	<b>(14,814)</b>

(1) Includes tax effects of interests, interests on penalties and statutory fees and tax losses carry-forward.

(2) Penalties, fines, interest, interest on penalties and statutory fees.

Our participation in the REFIS resulted in a substantial reduction in the amounts in dispute, while preserving potential benefits from legal challenges to the tax regime for foreign subsidiaries.

Table of Contents

## INVESTMENTS

From this current report onwards, R&D will not be included in our investments figure. Investments are composed of project execution and sustaining capex, which are based on disbursements.

In 2013, Vale's capital expenditures (project execution and sustaining) amounted to US\$ 14.233 billion. This represents a decrease of US\$ 1.963 billion when compared to the US\$ 16.196 billion spent in 2012. US\$ 9.648 billion was dedicated to project execution and US\$ 4.585 billion to sustaining. Divestments of non-core business totaled US\$ 6.024 billion.

## INVESTMENTS BY BUSINESS AREA - 2013

US\$ million	Projects	%	Sustaining capex	%	Total	%
Ferrous minerals	4,926	51.1	2,224	48.5	7,150	50.2
Coal	1,346	14.0	165	3.6	1,511	10.6
Base metals	1,718	17.8	1,309	28.5	3,027	21.3
Fertilizer nutrients	780	8.1	378	8.2	1,159	8.1
Logistics services - general cargo	353	3.7	249	5.4	603	4.2
Power generation	209	2.2	6	0.1	214	1.5
Steel	315	3.3			315	2.2
Others			255	5.6	255	1.8
<b>Total</b>	<b>9,648</b>	<b>100.0</b>	<b>4,585</b>	<b>100.0</b>	<b>14,233</b>	<b>100.0</b>

## PROJECT EXECUTION

Vale has consistently reduced its investments in project execution, from US\$ 11.580 billion in 2012 to US\$ 9.648 billion in 2013 as projects are delivered. Ferrous minerals represented over 50% of our investments in project execution and, combined, base metals and coal accounted for over 30% of the total.

## PROJECT EXECUTION BY BUSINESS AREA

US\$ million	4Q13	3Q13	4Q12	2013	% 2013	2012	% 2012
Ferrous minerals	1,367	1,161	1,673	4,926	51.1	5,747	49.6
Coal	514	392	281	1,346	14.0	943	8.1
Base metals	319	291	655	1,718	17.8	2,491	21.5
Fertilizer nutrients	86	141	440	780	8.1	1,467	12.7
Logistics services - general cargo	78	65	152	353	3.7	298	2.6
Power generation	72	22	121	209	2.2	286	2.5

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

Steel	11	65	64	315	3.3	348	3.0
<b>Total</b>	<b>2,447</b>	<b>2,136</b>	<b>3,386</b>	<b>9,648</b>	<b>100.0</b>	<b>11,580</b>	<b>100.0</b>

**Ferrous minerals**

In 2013 our investment in ferrous minerals was US\$ 4.926 billion, mainly comprised of growth initiatives in the iron ore business, namely: (a) Carajás and related infrastructure expansion (US\$ 2.718 billion); (b) Itabirito projects (US\$ 1.087 billion); and (c) global distribution network (US\$ 673 million).

The expansion in Carajás achieved important milestones during the year. We started ramping up Plant 2 (a dry beneficiation process with 40 Mtpy of capacity), delivered Pier IV with its first berth in Ponta da Madeira (PDM) currently with 150 Mtpy of capacity and increased the Carajás railway (EFC) capacity to 128 Mtpy.

In 2013, we obtained two essential licenses for S11D and associated logistics. S11D, our flagship iron ore project, received the installation license (LI) for the rail spur that will connect the southern range of Carajás to the EFC and

Table of Contents

the LI for the development of the mine and construction of the plant. Pre-stripping of the mine and the off-site electromechanical assembly of modules progressed well.

Conceição Itabiritos (CI) started in 4Q13, with investments of US\$ 249 million in the year. CI is the first of our Itabiritos projects that will improve quality and extend mine lives allowing full utilization of the South and Southeastern Systems infra-structure capacity. Conceição Itabiritos II and Vargem Grande Itabiritos reached close to 80% of physical completion, and Cauê Itabiritos started the electromechanical assembly of the quaternary screening and grinding buildings.

We also finalized the unloading system of our distribution center in Malaysia, Teluk Rubiah, and will have the storage yard ready to start operations in 2H14.

**Coal**

Our investments in Mozambique gained steam during 2013. US\$ 1.315 billion was invested to duplicate the Moatize coking coal operations and build the Nacala railway and port infrastructure. Moatize II is more than halfway through completion and civil engineering works at the processing facilities are progressing well. The port and railway reached 42% and 40% physical progress in 2013, respectively. The greenfield sections within Mozambique and Malawi which will enable the connection between the Moatize Mine and the Nacala Port achieved 56% physical progress and the first train is expected to circulate by the end of 2014 with rail capacity at 11 Mtpy. Works on revamping the existing railway sections will extend up to 2016, increasing capacity up to 18 Mtpy.

**Base metals**

During 2013, we completed two nickel projects: Long Harbour and Totten. The Long Harbour hydrometallurgical refinery, with investments of US\$ 1.030 billion in the year, reached construction completion and is currently being commissioned. Totten mine, with investment of US\$ 172 million in 2013, is starting up. When fully ramped up, the mine is expected to produce in excess of 8,000 t per year of nickel and in excess of 10,000 t per year of copper.

Salobo II reached 90% of physical completion and is currently under commissioning. Salobo II will be completed in 1H14 and we expect a solid ramp-up, as a result of lessons learned from Salobo I.

Table of Contents**DESCRIPTION AND STATUS OF MAIN PROJECTS**

<b>Project</b>	<b>Description</b>	<b>Capacity Mtpy</b>	<b>Status</b>
<b>Ferrous minerals projects</b>			
<b>Carajás Serra Sul S11D</b>	<ul style="list-style-type: none"> <li>Development of a mine and processing plant, located in the Southern range of Carajás, Pará, Brazil</li> </ul>	90	<ul style="list-style-type: none"> <li>Electromechanical assembly of modules achieved 47% completion</li> </ul>
<b>CLN S11D</b>	<ul style="list-style-type: none"> <li>Duplication of 570 km railway, with construction of rail spur of 101 km</li> <li>Acquisition of wagons, locomotives, and onshore and offshore expansions at PDM maritime terminal</li> </ul>	230 (80 <sup>1</sup> )	<ul style="list-style-type: none"> <li>Installation license issued</li> <li>Authorization issued from ANTT for all civil works required for the construction of the EFC</li> <li>Earthworks for railway duplication and civil works of the rail spur to connect the mine to the EFC in progress</li> </ul>
<b>Serra Leste</b>	<ul style="list-style-type: none"> <li>Construction of new processing plant in Carajás, Pará, Brazil</li> </ul>	6	<ul style="list-style-type: none"> <li>Installation license issued</li> <li>Eletromechanical assembly of the substation and energizing of the processing plant concluded</li> <li>Pre stripping initiated and commissioning of the iron ore treatment facility in progress</li> </ul>
<b>V. Grande Itabiritos</b>	<ul style="list-style-type: none"> <li>Construction of a new iron ore processing plant, in the Southern System, Minas Gerais, Brazil</li> </ul>	10	<ul style="list-style-type: none"> <li>Installation license issued</li> <li>Ongoing assembly of steel structures and equipment for the iron ore beneficiation plant</li> <li>Ongoing civil works for the long distance conveyor belt and Andaime railway terminal</li> </ul>
<b>Conceição Itabiritos II</b>	<ul style="list-style-type: none"> <li>Adaptation of the existing plant to process lower grade itabirites from the Conceição mine, located in the Southeastern System, Minas Gerais, Brazil</li> </ul>	19 (- <sup>1</sup> )	<ul style="list-style-type: none"> <li>Operating license expected for 1H14</li> <li>Assembly of steel structures of the flotation cells and civil works for the ball mill with feed type system concluded</li> <li>Ongoing civil engineering, steel structure and equipment electromechanical assembly</li> </ul>
<b>Cauê Itabiritos</b>	<ul style="list-style-type: none"> <li>Adaptation of the plant to process low-grade itabirites from the Minas do Meio mine hub, located in the Southeastern System, Minas Gerais, Brazil</li> </ul>	24 (4 <sup>1</sup> )	<ul style="list-style-type: none"> <li>Installation license issued</li> <li>Electromechanical assembly of the quaternary screening and grinding started</li> <li>Ongoing civil works and steel structure and equipment received</li> <li>Preliminary and installation licenses for new primary crusher expected for 1H15</li> </ul>
<b>Samarco IV<sup>2</sup></b>	<ul style="list-style-type: none"> <li>Construction of fourth pellet plant, and expansion of mine, pipeline and maritime terminal</li> </ul>	4.2	<ul style="list-style-type: none"> <li>Commissioning activities in final stages</li> <li>Pre heat of the pelletizing furnace initiated</li> </ul>

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

<b>Tubarão VIII</b>	<ul style="list-style-type: none"> <li>Construction of the eighth pellet plant at our existing site at the Tubarão Port, Espírito Santo, Brazil</li> </ul>	7.5	<ul style="list-style-type: none"> <li>Fully funded by Samarco - not included in Vale's budget</li> <li>Test with pelletizing cargo performed</li> <li>Commissioning activities in final stage</li> </ul>
<b>Teluk Rubiah</b>	<ul style="list-style-type: none"> <li>Construction of a storage yard and maritime terminal for the 400,000 dwt vessels in Teluk Rubiah, Malaysia</li> </ul>	60	<ul style="list-style-type: none"> <li>Operating license expected for 1H14</li> <li>Unloading system fully commissioned to receive the first vessel</li> <li>On site concreting work at the smaller export pier completed</li> </ul>
<b>CSP<sup>2</sup></b>	<ul style="list-style-type: none"> <li>Development of a steel slab plant in partnership with Dongkuk and Posco, located in Ceará, Brazil.</li> </ul>	1.5	<ul style="list-style-type: none"> <li>Civil and electromechanical works in progress</li> <li>Preliminary and installation licenses issued</li> </ul>

Table of Contents

Project	Description	Capacity Mtpy	Status
<b>Coal projects</b>			
<b>Moatize II</b>	<ul style="list-style-type: none"> <li>New pit and duplication of the Moatize CHPP, as well as all related infrastructure, located in Tete, Mozambique</li> </ul>	11	<ul style="list-style-type: none"> <li>Earthworks concluded</li> <li>Civil works in progress with concrete foundations at the primary crusher, coal handling processing plant (CHPP) and heavy duty vehicles area well advanced</li> </ul>
<b>Nacala corridor</b>	<ul style="list-style-type: none"> <li>Railway and port infrastructure connecting Moatize site to the Nacala-à-Velha maritime terminal, located in Nacala, Mozambique</li> </ul>	18	<ul style="list-style-type: none"> <li>Rail and sleepers delivery for the section between Moatize and Malawi border in progress</li> <li>Ongoing earthworks, drainage and civil works for the railway section in Malawi and Mozambique</li> <li>Assembly of stacker and conveyor belt at the port initiated</li> </ul>
<b>Base metals projects</b>			
<b>Salobo II</b>	<ul style="list-style-type: none"> <li>Salobo expansion, raising height of tailing dam and increase in mine capacity, located in Marabá, Pará, Brazil</li> </ul>	100,000 tpy	<ul style="list-style-type: none"> <li>Test of the pipes from the filtering facility concluded</li> <li>Ongoing electromechanical assembly of the plant</li> <li>Plant operating license expected for 1H14</li> </ul>

In the following table we do not include pre-operating expenses in the estimated capex for the year, although these expenses are included in the total estimated capex column, in line with our Board of Directors approval process.

**PROGRESS INDICATORS**

Project	Capacity Mtpy	Estimated start-up	Executed capex US\$ million		Estimated capex US\$ million		Physical progress
			2013	Total	2014	Total	
<b>Ferrous minerals projects</b>							
<b>Carajás Serra Sul S11D</b>	90	2H16	818	2,631	1,091	8,089	48%
<b>CLN S11D</b>	230 (80 <sup>1</sup> )	1H14 to 2H18	696	1,156	1,914	11,582	13%
<b>Serra Leste</b>	6	2H14	140	432	34	478	72%
<b>V. Grande Itabiritos</b>	10	2H14	376	1,292	376	1,910	80%
<b>Conceição Itabiritos II</b>	19 (- <sup>1</sup> )	2H14	228	652	240	1,189	79%
<b>Cauê Itabiritos</b>	24 (4 <sup>1</sup> )	2H15	233	353	373	1,504	47%
<b>Samarco IV<sup>2</sup></b>	4.2	1H14				1,625	98%
<b>Tubarão VIII</b>	7.5	1H14	194	1,084	154	1,321	95%
<b>Teluk Rubiah</b>	60	2H14	490	1,003	278	1,371	94%
<b>CSP<sup>2</sup></b>	1.5	2H15	297	873	197	2,570	46%
<b>Coal projects</b>							
<b>Moatize II</b>	11	2H15	383	839	761	2,068	53%
<b>Nacala corridor</b>	18	2H14	932	1,341	1,812	4,444	41%



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

Base metals projects

<b>Salobo II</b>	100,000 tpy	1H14	294	1,054	332	1,707	93%
------------------	-------------	------	-----	-------	-----	-------	-----

Table of Contents


---

<sup>1</sup> Net additional capacity

<sup>2</sup> Relative to Vale's stake in the project

**SUSTAINING CAPEX**

Sustaining capital expenditures have been stable over the past 3 years. In 2013 they reached US\$ 4.585 billion, accounting for 5.0% of our asset base and slightly below the 2012 expenditures. Ferrous minerals represented over 48% and, combined, ferrous minerals and base metals accounted over 77% of the total.

Sustaining capital expenditures for ferrous minerals included: (i) replacement and acquisition of new equipment (US\$ 684 million), (ii) expansion of tailing dams (US\$ 284 million), (iii) infrastructure enhancement (US\$ 193 million) and (iv) improvement in the current standards of health and safety and environmental protection (US\$ 110 million). Maintenance of railways and ports serving our mining operations in Brazil totaled US\$ 738 million.

Sustaining capex in the base metals operations was mainly dedicated to the rebuilding of the Onça Puma furnace #1 (US\$ 166 million), the installation of the AER (atmospheric emission reduction) project (US\$ 137 million) in Sudbury, the development of ore bodies and the increase in recovery rates and grades in the nickel mines (US\$ 136 million), and the execution of projects for the improvement of production processes in the copper mines (US\$ 68 million).

Investments in corporate social responsibility reached US\$ 1.280 billion in 2013, of which US\$ 1.015 billion was for environmental protection and conservation and US\$ 265 million for social projects.

**SUSTAINING CAPEX BY BUSINESS AREA**

US\$ million	4Q13	3Q13	4Q12	2013	% 2013	2012	% 2012
Ferrous minerals	630	498	715	2,224	48.5	2,135	46.2
Coal	68	45	102	165	3.6	207	4.5
Base metals	451	286	470	1,309	28.5	1,202	26.0
Fertilizer nutrients	120	121	118	378	8.2	370	8.0
Logistics services - general cargo	45	77	84	249	5.4	293	6.4
Power generation	4		3	6	0.1	6	0.1
Steel			(0)				
Others	75	68	122	255	5.6	403	8.7
<b>Total</b>	<b>1,393</b>	<b>1,095</b>	<b>1,614</b>	<b>4,585</b>	<b>100.0</b>	<b>4,616</b>	<b>100.0</b>

**PORTFOLIO MANAGEMENT**

In 2013 we divested non-core assets and further simplified our business portfolio, while unlocking value. The main divestitures in the year included: (i) the sale of interests in Hydro for US\$ 1.811 billion, (ii) agreements (still subject to conditions precedent) to sell stakes in aggregate of 62.4% of our wholly-owned subsidiary VLI for R\$ 2.7 billion in cash to Vale and R\$ 2.0 billion in cash contributions to VLI, and (iii) the sale of gold streams from the Salobo and

Table of Contents

Sudbury mines for an initial cash payment of US\$ 1.9 billion plus 10 million Silver Wheaton warrants, and ongoing payments equal to the lesser of US\$ 400 per ounce of gold and the prevailing market price. We also sold our stakes in Log-in for US\$ 99 million, in Fosbrasil for US\$ 45 million and in Tres Valles for US\$ 25 million.

We had US\$ 268 million in acquisitions during the year, as a result of previous rights that were exercised. We exercised the purchase option of the remaining 24.5% stake in Belvedere, an early stage project still subject to Board approval in Queensland, Australia for A\$ 150 million (US\$ 156 million). Belvedere, according to our preliminary estimates, is a large coking coal resource and has the potential to produce up to 7.0 Mtpy. We also acquired an additional 12.47% stake in Capim Branco I and II hydroelectric power plants from Suzano Papel e Celulose S.A. for US\$ 112 million as a result of exercising our preemptive rights.

By the end of 2013, we entered into transactions with CEMIG Geração e Transmissão S.A. (CEMIG GT), still subject to conditions precedent, to restructure our investments in power generation. As a result, we agreed to sell 49% of our 9% stake in Norte Energia S.A. the company established to develop and operate the Belo Monte hydroelectric plant for approximately US\$88 million, and create a joint venture to hold certain power generation assets and projects that will supply Vale operations.

DEBT INDICATORS

During the year, Vale maintained its absolute debt level with strong operational cash flow and divestitures supporting capital expenditures, dividend payments and the upfront payment of the REFIS settlement. Furthermore, net debt at year end would have been less considering full proceeds from the transactions still subject to conditions precedent, mainly VLI.

As of December 31, 2013, our net debt was US\$ 24.403 billion. Vale's total debt was US\$ 29.727 billion, with US\$ 5.324 billion in cash position(10). Such cash position did not include any proceeds from the divestiture of the VLI stakes, which is subject to conditions precedent and, most importantly, the analysis and approval by the antitrust regulator CADE, which is currently underway.

Debt leverage, as measured by total debt/LTM adjusted EBITDA(d) ratio excluding non-recurring charges, decreased to 1.3x from 1.5x as of September 30, 2013. Total debt/enterprise value(e) remained stable at 29%.

The average debt maturity of 9.9 years as of December 31, 2013 was in line with our goal of maintaining long debt maturity to minimize refinancing risks. The average cost of debt measured in US dollars was stable compared to the previous quarter, at 4.59% per annum as of December 31, 2013.

Interest coverage, measured by the LTM adjusted EBITDA /LTM interest expenses(f), increased to 14.8x on December 31, 2013, compared to 13.8x in the previous quarter.

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

Considering hedge positions in interest rates, our total debt on December 31, 2013 was 30% based on floating interest rates and 70% based on fixed interest rates. Considering hedge positions in currencies, 98% of our debt is denominated in US dollars and the remainder in other currencies.

### DEBT INDICATORS

US\$ million	4Q13	3Q13	4Q12
Total debt	29,727	29,776	30,546
Net debt	24,403	22,574	24,468
Total debt / adjusted LTM EBITDA (x)	1.3	1.5	1.6
Adjusted LTM EBITDA / LTM interest expenses (x)	14.8	13.8	14.7
Total debt / EV (%)	28.7	28.8	22.5

---

(10) Cash holdings include cash and cash equivalents, as well as short-term investments of US\$ 3 million as of December 31, 2013.

Table of Contents

## PERFORMANCE OF THE BUSINESS SEGMENTS

Iron ore and pellets continued to drive adjusted EBITDA in 2013. The base metals business showed significant improvement in the year. Coal, fertilizer and other products had negative contribution to adjusted EBITDA.

## SEGMENT INFORMATION - 2013, as per footnote of financial statements

US\$ million	Net operating revenues	Cost(1)	Expenses(1)	R&D	Pre operating & stoppage(1)	Dividends	Adj. EBITDA(2)
<b>Ferrous minerals</b>	<b>34,792</b>	<b>(11,849)</b>	<b>(1,402)</b>	<b>(326)</b>	<b>(387)</b>	<b>715</b>	<b>21,543</b>
Iron ore	28,137	(9,153)	(1,261)	(314)	(244)	65	17,230
Pellets	6,000	(2,299)	(110)	(12)	(130)	650	4,099
Ferroalloys and manganese	523	(317)	(34)		(13)		159
Others ferrous	132	(80)	3				55
<b>Coal</b>	<b>1,010</b>	<b>(1,147)</b>	<b>(262)</b>	<b>(49)</b>	<b>(47)</b>	<b>40</b>	<b>(455)</b>
<b>Base metals</b>	<b>7,286</b>	<b>(4,665)</b>	<b>(1)</b>	<b>(218)</b>	<b>(763)</b>		<b>1,639</b>
<b>Fertilizer nutrients</b>	<b>2,814</b>	<b>(2,190)</b>	<b>(197)</b>	<b>(53)</b>	<b>(428)</b>		<b>(54)</b>
<b>Logistics - general cargo</b>	<b>1,283</b>	<b>(1,078)</b>	<b>(72)</b>	<b>(14)</b>			<b>119</b>
<b>Others</b>	<b>865</b>	<b>(669)</b>	<b>(233)</b>	<b>(155)</b>		<b>79</b>	<b>(113)</b>
<b>Total</b>	<b>48,050</b>	<b>(21,598)</b>	<b>(2,167)</b>	<b>(815)</b>	<b>(1,625)</b>	<b>834</b>	<b>22,679</b>

(1) Excluding depreciation and amortization

(2) Excluding non-recurring effects

**Ferrous minerals****Annual performance****Iron ore**

Adjusted EBITDA of iron ore in 2013 was US\$ 17.230 billion, 18.8% higher than the previous year. The increase of US\$ 2.727 billion was mainly a result of our efforts to reduce costs and expenses (US\$ 1.350 billion), followed by positive effects from exchange rates variations (US\$ 640 million) and higher sales prices (US\$ 514 million) and volumes (US\$ 217 million).

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

Iron ore gross sales revenues were US\$ 28.429 billion in 2013, 4.5% higher than in 2012. Sales volumes contributed with US\$ 692 million and prices with US\$ 535 million to the increase in sales revenues from 2012.

Sales volumes reached an all-time record of 264.6 Mt in 2013, supporting the all-time record sales volumes of iron ore and pellets of 305.6 Mt. The use of inventories and higher acquisition of iron ore from third parties were the main factors that contributed to the increase in sales from the 258.1 Mt in the previous year. The average realized price of iron ore was US\$ 107.43 per metric ton in 2013, slightly higher than the US\$ 105.41 in 2012.

Iron ore cost, net of depreciation charges, were US\$ 9.153 billion. After adjusting for the effects of higher volumes and currency variations, costs were down by US\$ 563 million against 2012, despite inflation in BRL in 2013.

Discounting iron ore freight costs of US\$ 2.974 billion, total cash cost at the port (mine, plant, railroad and port, after royalties) was US\$ 6.179 billion. Cash cost per metric ton declined to US\$ 23(11), US\$ 5 lower than in 2012, as a result of our ongoing initiatives to reduce costs.

---

(11) As per segment reporting notes to the financial statements: US\$ 9.153 billion in costs net of depreciation and amortization, less US\$ 2.974 billion in iron ore freight, over iron ore sales of 264.6 Mt.

Table of Contents

**Iron ore pellets**

Adjusted EBITDA of pellets in 2013 was US\$ 4.099 billion, slightly higher than 2012. The increase of US\$ 29 million was mainly due to higher dividends received from non-consolidated affiliated companies (US\$ 371 million), positive impacts from exchange rates variations (US\$ 218 million), higher sales prices (US\$ 94 million) and lower costs (US\$ 48 million). Those positive effects were partly mitigated by lower sales volumes (US\$ 576 million) and higher SG&A, R&D and other expenses (US\$ 127 million).

Pellets gross sales revenues were US\$ 6.158 billion in 2013, decreasing by 8.9% versus 2012, mainly due to the decrease in sales volumes, which impacted sales revenues by US\$ 654 million compared to the previous year. Sales volumes declined to 40.991 Mt versus 45.382 Mt in 2012, as a result of lower pellet production after the shutdown of the Tubarão I and II and the São Luis plants. Sales prices showed a small increase to US\$ 150.22 per metric ton in 2013 versus US\$ 148.89 in the previous year.

Costs for pellets, net of depreciation charges, were US\$ 2.299 billion in 2013. After adjusting for the effects of lower volumes and currency prices, costs were down US\$ 48 million against 2012, despite inflation in BRL in 2013.

**Manganese and ferroalloys**

Adjusted EBITDA of manganese and ferroalloys in 2013 was US\$ 159 million, US\$ 31 million lower than 2012, mainly due to the increase in costs and expenses (US\$ 85 million) partly offset by higher sales prices (US\$ 43 million) and positive impacts from exchange rates variations (US\$ 29 million). Higher costs reflect the corrective maintenance at our manganese mine Mina do Azul in 4Q13, which increased cost of materials (US\$ 20 million) and outsourced services (US\$ 57 million).

Manganese gross sales revenues increased to US\$ 333 million in 2013, up from US\$ 234 million in 2012, due to higher realized volumes and prices. In 2013, manganese ore production was 2.378 Mt, in line with 2012.

Ferroalloys sales revenues decreased in 2013 to US\$ 239 million from US\$ 358 million in 2012, due to the decrease in volumes after the sale of the European operations (Dunkerque and Mo I Rana) concluded in the end of 2012 and lower prices. In 2013, the output of ferroalloys was 179,000 t, 54.9% lower than in 2012, for the reasons given above.

**Quarterly performance**

**Iron ore**



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

Adjusted EBITDA of iron ore in 4Q13 was US\$ 5.253 billion, 11.9% higher than the previous quarter. The increase of US\$ 557 million was mainly due to higher sales prices (US\$ 552 million) and lower SG&A and other expenses (US\$ 194 million). Those positive effects were partly offset mainly by higher R&D expenditures (US\$ 33 million) and higher costs (US\$ 28 million).

Iron ore gross sales revenues in 4Q13 increased to US\$ 8.314 billion, 7.2% higher than the previous quarter, mainly due to higher prices, which accounted for US\$ 544 million of the total increase in sales revenues. Average realized price increased to US\$ 112.97 per metric ton in 4Q13 from US\$ 105.58 in 3Q13, mainly due to the increase of average Platt's IODEX 62% in 4Q13 and higher sales on a CFR basis.

Our iron ore sales in 4Q13 were priced through three basic systems: (i) 52% based on the current quarter, monthly and daily spot prices; (ii) 31% based on the spot price after delivery, involving provisional pricing and an adjustment invoice following delivery; and (iii) 17% linked to past prices (three-month average with a one-month lag).

Sales volumes remained stable 73.597 Mt in 4Q13 versus 73.435 Mt in 3Q13 even though there was a slight quarterly decrease in iron ore output to 81.3 Mt(12) in 4Q13. In 4Q13, we acquired 3.8 Mt of iron ore from third parties. Sales on a CFR basis increased to 37.9 Mt in 4Q13, representing 51.5% of total shipments, versus 37.3 Mt in 3Q13, equivalent to 50.8% of total shipments.

---

(12) Excluding Samarco's attributable production of 2.780 Mt in 4Q13.

Table of Contents

Iron ore costs, net of depreciation charges, were US\$ 2.636 billion. After adjusting for the effects of higher volumes and currencies variations, costs were stable in a quarterly comparison. Discounting iron ore freight costs of US\$ 974 million, total cash cost at the port (mine, plant, railroad and port, after royalties) was US\$ 1.662 billion. Cash cost per ton remained at a low level in 4Q13, at US\$ 22.58 per metric ton(13), already including the increase in wages for our Brazilian employees. Excluding iron ore acquired from third parties and costs related to provision for inventories losses of US\$ 79 million, cash cost per metric ton was US\$ 20.87. Pre-operating expenses for iron ore reduced to US\$ 52 million.

**Iron ore pellets**

Adjusted EBITDA of pellets in 4Q13 was US\$ 1.307 billion, 52.0% higher than 3Q13. The increase of US\$ 447 million was mainly due to higher dividends received from non-consolidated affiliated companies (US\$ 434 million) and higher sales volumes (US\$ 85 million) and prices (US\$ 19 million), which were partly offset by higher costs and expenses (US\$ 88 million).

Pellet gross sales revenues in 4Q13 rose by 10.0% to US\$ 1.677 billion, mainly due to the stronger sales volumes, which contributed with US\$ 145 million to the increase in sales revenues. Sales volumes increased to 11.167 Mt in 4Q13 from 10.197 Mt in the previous quarter, supported by a 7.0% quarterly increase in pellet production to 10.4 Mt(14). Pellet prices were slightly higher US\$ 150.17 per metric ton in 4Q13 against US\$ 149.55 in 3Q13.

Pellets costs, net of depreciation charges, were US\$ 695 million in 4Q13. After adjusting for the effects of higher volumes and exchange rate variations, costs were up US\$ 68 million when compared to 3Q13, mainly due to higher leasing costs of US\$ 48 million related to the stoppage of Tubarão I and II. Pre-operating and stoppage expenses for pellets reduced slightly to US\$ 29 million.

**Manganese and ferroalloys**

Adjusted EBITDA of manganese and ferroalloys in 4Q13 was US\$ 61 million, the same as in 3Q13. The reduction of SG&A and other expenses (US\$ 14 million) were offset by lower sales volumes and prices (US\$ 10 million), higher costs (US\$ 3 million) and exchange rate effects (US\$ 1 million).

Manganese ore gross sales revenues reached US\$ 99 million, 16.8% lower than 3Q13, due to the decrease in sales volumes and lower prices. Production of manganese ore reached 638,000 t against 621,000 t in 3Q13. There was an increase in inventory held by clients in 3Q13, which increased volumes sold in that quarter.

Ferroalloys sales revenues increased to US\$ 62 million, 14.8% higher than in 3Q13, as a result of higher sales volumes, which were slightly offset by lower prices. In 4Q13, the production of ferroalloys was 50,000 t, 4.0% lower than in 3Q13, due to scheduled maintenance stoppage in 4Q13.

**Market outlook**

Global activity is expected to improve further in 2014, largely on account of recovery in the developed economies. The Euro area came out of the recession, the US is recovering and has been successful in reducing the unemployment rate while Japan looks set to have a brighter outlook due to its monetary stimulus. This more positive scenario in developed markets is important to encourage and support global investments and boost international trade. However, uncertainties related to emerging markets may partially offset the economic recovery, as some of these markets slowed down in the end of 2013.

In China, concerns increased after the Third Plenum Session held last November, when reforms were announced. From then, it became clear that the central government wants to let the market play a decisive role in allocating resources, which makes China's growth more sustainable in the long term as it will become less dependent on government stimulus, but also more uncertain in the short term as credit conditions may tighten.

Chinese reforms will also deal with, among other things, the need to control local governments' debt, maintain the urbanization process and produce a cleaner environment. Reforms will probably be implemented smoothly, without

---

(13) As per segment reporting notes to the financial statements: US\$ 2.636 billion in costs net of depreciation and amortization, less US\$ 974 million in iron ore freight, over iron ore sales of 73.6 Mt.

(14) Excluding Samarco's attributable production of 2.755 Mt in 4Q13.

Table of Contents

major disruptions in any sector and supporting growth around 7.5% this year. We expect China to grow around 7% in the next couple of years, with a gradual deceleration to 6% thereafter.

Due to reforms, the Chinese steel industry may become less buoyant, compared to its vigorous growth of 8% year-on-year in 2013. As controls tighten over local governments, there will be a deceleration in infrastructure building. On the other hand, the property sector is expected to continue to grow supported by the ongoing urbanization process, further boosting housing sales and housing starts. The automotive sector also has room to expand. Demand for equipment and machines will also grow as labor costs increase in China and lead firms to replace workers by machines.

From an environmental perspective, concerns about pollution are prompting the steel industry to raise capacity utilization, discontinue some non-efficient mills and reduce sintering and pelletizing capacity. These measures have already lifted demand for high quality iron ore, lump and pellets as of 2H13. As a result, premiums on lumps and pellets spiked in the end of 2013 and will probably remain elevated during 2014.

Taking a broad-based view on demand, world consumption of iron ore may increase supported by rise in global steel production, that we estimate to be around 4% in 2014, compared to 5% growth last year.

On the supply side, this year production is expected to continue to grow, mostly due to Australia and, to a lesser extent, Brazil and India. This additional supply in the seaborne market may lead to a decline in Chinese domestic ore production alongside a decline in production from non-traditional miners in countries such as Malaysia, Iran and Indonesia, due to their elevated and increasing costs.

Overall, in spite of this expansion of supply, we expect the iron ore market to remain balanced, as the steel sector grows smoothly, with China remaining the driving force. Beyond China, demand for iron ore will possibly edge up marginally, along with the recovery in developed markets.

**FERROUS MINERALS BUSINESS PERFORMANCE**

**VOLUME SOLD BY DESTINATION IRON ORE AND PELLETS**

000 metric tons	4Q13	3Q13	4Q12	2013	% 2013	2012	% 2012
<b>Americas</b>	<b>11,058</b>	<b>11,250</b>	<b>9,618</b>	<b>41,715</b>	<b>13.6</b>	<b>41,342</b>	<b>13.6</b>
Brazil	9,764	9,647	8,729	36,084	11.8	35,612	11.7
Others	1,294	1,602	889	5,631	1.8	5,730	1.9
<b>Asia</b>	<b>55,687</b>	<b>55,624</b>	<b>59,550</b>	<b>198,406</b>	<b>64.9</b>	<b>200,895</b>	<b>66.2</b>
China	40,874	42,001	46,706	145,847	47.7	148,746	49.0
Japan	8,772	8,618	7,352	31,191	10.2	30,227	10.0
Others	6,041	5,005	5,492	21,368	7.0	21,922	7.2
<b>Europe</b>	<b>14,872</b>	<b>14,147</b>	<b>12,510</b>	<b>55,012</b>	<b>18.0</b>	<b>51,805</b>	<b>17.1</b>
Germany	6,128	6,274	5,247	22,239	7.3	19,321	6.4
France	2,121	2,295	1,945	8,542	2.8	5,760	1.9
Others	6,623	5,578	5,318	24,232	7.9	26,724	8.8

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

Middle East	2,327	1,821	2,177	7,527	2.5	6,732	2.2
Rest of the World	820	790	969	2,962	1.0	2,669	0.9
<b>Total</b>	<b>84,764</b>	<b>83,632</b>	<b>84,824</b>	<b>305,623</b>	<b>100.0</b>	<b>303,443</b>	<b>100.0</b>

**GROSS OPERATING REVENUE BY PRODUCT**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Iron ore	8,314	7,753	7,441	28,429	27,202
Pellets	1,677	1,525	1,396	6,158	6,757
Manganese ore	99	119	72	333	234
Ferrous alloys	62	54	50	239	358
Pellet plant operation services					19
Others	25	31	40	110	296
<b>Total</b>	<b>10,177</b>	<b>9,482</b>	<b>8,998</b>	<b>35,267</b>	<b>34,866</b>

Table of Contents**AVERAGE SALE PRICE**

US\$/ metric ton	4Q13	3Q13	4Q12	2013	2012
Iron ore - Platts s 62% IODEX(1)	134.60	132.51	122.34	135.19	130.00
Iron ore	112.97	105.58	100.43	107.43	105.41
Pellets	150.17	149.55	129.97	150.22	148.89
Manganese ore	152.54	160.81	152.22	157.37	134.10
Ferroalloys	1,265.31	1,285.71	1,470.59	1,303.92	1,340.82

**VOLUME SOLD**

000 metric tons	4Q13	3Q13	4Q12	2013	2012
Iron ore	73,597	73,435	74,085	264,631	258,061
Pellets	11,167	10,197	10,739	40,991	45,382
Manganese ore	649	740	473	2,115	1,745
Ferroalloys	49	42	34	183	267

**SELECTED FINANCIAL INDICATORS**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Net Revenues	10,079	9,358	8,847	34,792	34,280
Costs(2)	(3,416)	(3,107)	(3,522)	(11,849)	(13,110)
Expenses(2)	(291)	(459)	(801)	(1,402)	(1,850)
Pre-operating and stoppage expenses(2)	(82.0)	(109.0)	(151.0)	(387.0)	(321.0)
R&D expenses	(112)	(79)	(185)	(326)	(616)
Adjusted EBITDA	6,654	5,626	4,435	21,543	18,720
Depreciation and amortization	(495)	(445)	(493)	(1,746)	(1,806)
Adjusted EBIT	5,683	5,159	3,695	19,082	16,577
Adjusted EBIT margin (%)	56.4	55.1	41.8	54.8	48.4

---

(1) Iron ore reference price - Platts s 62% IODEX CFR China (US\$/dry metric ton)

(2) Net of depreciation and amortization

**Coal****Annual performance**

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

In 2013, adjusted EBITDA for the coal business was negative US\$ 455 million against negative US\$ 389 million in the previous year, despite record metallurgical coal sales volumes. The reduction was mainly due to the softer price environment in the industry (-US\$ 311 million) and higher COGS due to the undiluted fixed-cost base (-US\$ 184 million), partially offset by a better sales volumes mix (US\$ 220 million), positive exchange rate variation (US\$ 92 million) and reduced expenses (US\$ 137 million).

Revenues from sales of coal products in 2013 were US\$ 1.010 billion, below 2012, mainly due to lower sales prices of metallurgical coal (met coal) (US\$ 129.34 per ton in 2013 vis-à-vis US\$ 171.38 in 2012). In 2013, coal shipments reached an all-time high figure of 8.1 Mt, slightly above 8.0 Mt in 2012. Met coal sales volumes increased by 51.2%, reaching 7.353 Mt in 2013 compared to 4.864 Mt in the previous year. In terms of production, Vale also reached a new mark in 2013, 8.8 Mt, as a result of Moatize's ramp-up and a significant improvement in the performance of Carborough Downs.

The challenge of the coal business is to continue to increase production and sales in order to dilute costs. The start-up of the Nacala Corridor along with the expansion of the Moatize mine will be critical for lowering costs and maximizing the value of our asset base.

### **Quarterly performance**

In 4Q13, adjusted EBITDA for the coal business was negative US\$ 82 million against negative US\$ 72 million in 3Q13. The sub-utilization of our asset base, until infrastructure investments in Mozambique are completed, continued to drive our negative results as current low prices do not compensate for undiluted costs. Although the structural solution will come with the Nacala corridor, costs continued to improve as our fixed cost base gets diluted by higher sales volumes in the quarter.

Table of Contents

Revenues from met coal were US\$ 304 million in 4Q13, above 3Q13 as a result of higher sales volumes and an increase in the average realized price of US\$ 122.80 per metric ton versus US\$ 117.16 in 3Q13. Metallurgical coal sales volumes continued to reach record figures, increasing to 2.478 Mt in 4Q13 from 1.707 Mt in 3Q13, mainly due to the operational improvement of Carborough Downs. Revenues from sales of thermal coal in 4Q13 were US\$ 29 million.

We successfully used inventories to increase sales during the quarter, however total coal production reached 2.3 Mt in 4Q13, 5.0% below 3Q13. The improved performance of Carborough Downs nearly compensated for the decrease in production at Moatize. The ramp-up of the first phase of the Moatize coal project is being temporarily restricted by the existing limitations of the logistics infrastructure – railway and port. Additionally, insufficient supplies of explosives constrained blasting operations and impacted production volumes in 4Q13. Availability of explosives on site has been restored.

In 4Q13, coal costs, net of depreciation charges, were US\$ 375 million, an increase from US\$ 254 million in the previous quarter. As an effect of the higher utilization of our assets, costs were down by US\$ 27 million, excluding the effect of higher volumes (US\$ 137 million) and exchange rates (US\$ 11 million). Coal expenses were reduced to US\$ 3 million in 4Q13 against US\$ 47 million in the previous quarter. Pre-operating expenses for coal increased to US\$ 26 million from US\$ 1 million in 3Q13, due to the projects in Mozambique.

**Market Outlook**

Demand for met coal is essentially driven by the steel market, which is also the driving force behind the iron ore business. Asia accounts for more than half of the steel market and consumes 75% of the seaborne met coal. Chinese seaborne demand increased 48%, to 77Mt in 2013, from 52Mt in 2012.

Despite the firm demand, prices have remained depressed by the excess of supply. Growth in seaborne exports was 11% in 2013, fueled by Australian exports, which grew 9% in 2012 and 18% in 2013, gaining share and accounting for 58% of seaborne trade. The hard coking coal price (Australia-FOB) was reduced to US\$ 159 per t in 2013, 25% lower than US\$ 210 per t in 2012 and 45% lower than US\$ 289 per t in 2011.

Due to the current over-supplied market, there is no further incentive to expand met coal supply in the short term. Moreover, high-cost production has been displaced and we have witnessed mine closures in the past year. US exports have retracted by 5% in 2013 and further reductions are expected. Mining costs in the US are expected to increase with demand shifting further to the East and the stronger US dollar appreciating against commodity currencies such as the Australian dollar. The seaborne met coal business should rebalance over time and the hard coking coal price should converge to higher prices, compatible with the cash cost of marginal suppliers.

Thermal coal demand decreased recently as natural gas gained market share. Natural gas is more environmentally-friendly and its appeal increases with pollution concerns. The shale gas revolution in the US reduced supply costs and the gas price influences coal prices. These trends are exacerbated by the oversupply of thermal coal, further depressing coal prices. The Newcastle thermal coal benchmark price fell 6.4% during 2013. Fundamentals are unlikely to get worse, as prices are close to the industry cost waterline, creating potential upside with limited downside risk. Thermal coal accounts for less than 10% of our coal sales.



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

Vale is well positioned to benefit from the medium term recovery in coal markets. Moatize is being developed to be a large-scale, low cost, integrated met coal operation.

### COAL BUSINESS PERFORMANCE

#### GROSS OPERATING REVENUE BY PRODUCT

US\$ million	4Q13	3Q13	4Q12	2013	2012
Metallurgical coal	304	200	181	951	834
Thermal coal	29	11	21	59	258
<b>Total</b>	<b>333</b>	<b>211</b>	<b>202</b>	<b>1,010</b>	<b>1,092</b>

Table of Contents**AVERAGE SALE PRICE**

US\$/ metric ton	4Q13	3Q13	4Q12	2013	2012
Metallurgical coal	122.80	117.16	132.49	129.34	171.38
Thermal coal	74.68	79.14	93.57	81.17	82.39

**VOLUME SOLD**

000 metric tons	4Q13	3Q13	4Q12	2013	2012
Metallurgical coal	2,478	1,707	1,364	7,353	4,864
Thermal coal	391	139	228	726	3,134
<b>Total</b>	<b>2,869</b>	<b>1,846</b>	<b>1,592</b>	<b>8,079</b>	<b>7,997</b>

**SELECTED FINANCIAL INDICATORS**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Net Revenues	334	211	202	1,010	1,092
Costs(1)	(375)	(254)	(222)	(1,147)	(1,046)
Expenses(1)	(3)	(47)	(141)	(262)	(352)
Pre-operating and stoppage expenses(1)	(26)	(1)	(11)	(47)	(28)
R&D expenses	(12)	(21)	(49)	(49)	(115)
Adjusted EBITDA	(82)	(72)	(221)	(455)	(389)
Depreciation and amortization	(42)	(41)	(74)	(173)	(198)
Adjusted EBIT	(124)	(153)	(295)	(668)	(647)
Adjusted EBIT margin (%)	(37.1)	(72.5)	(146.0)	(66.1)	(59.2)

---

(1) Net of depreciation and amortization

**Base metals****Annual performance**

In 2013, base metals adjusted EBITDA totaled US\$ 1.639 billion, almost three times the US\$ 602 million in 2012 despite a weaker price scenario for most base metals commodities in 2013. The decrease in costs and expenses (US\$ 1.390 billion) and increase in sales volumes (US\$ 705 million) more than compensated for the decrease in prices (US\$ 1.218 billion).

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

In 2013, revenues from base metals and their by-products totaled US\$ 7.297 billion. The rise in revenues was mainly due to higher shipments of all products, especially copper, nickel and gold. The effect of higher shipments was almost entirely mitigated by lower prices of these products.

Production of nickel reached 260,000 t, in line with our guidance for 2013, setting the highest annual mark since 2008. Copper output was 370,000 t, 5,000 t higher than our production target for 2013, achieving a new annual record as a result of Salobo's ramp-up which was responsible for 18% of the 2013 production. Additionally, production of gold achieved a record output of 286,000 troy ounces (oz) in 2013, with Salobo representing 41% of total output.

In 2013, base metals costs were US\$ 4.665 billion. Excluding the effects of depreciation, higher volumes (US\$ 668 million) and exchange rates (-US\$ 160 million), COGS showed a significant reduction, US\$ 532 million, when compared to 2012.

The analysis of base metals results has to consider the many projects and operations which are under ramp-up and are still far from their targeted production, cost and cash generation performance. The impacts of such operations are mainly seen in the Pre-operating and stoppage expenditures line.

In spite of the challenging environment for base metals prices, the segment reporting table in the note 27 to the consolidated financial statements demonstrates that the cash flows generated mostly by operations not in ramp-up, as measured by the difference between revenues and costs and expenses before depreciation charges (thus excluding pre-operating, stoppage and R&D expenditures) remained at a healthy US\$ 2.620 billion in 2013 or more conservatively US\$ 2.216 billion after we remove the one-off gains from the gold stream transaction (US\$ 244 million) and VNC insurance (US\$ 160 million), recorded as reductions in expenses.

Table of Contents

The fact that the operations outside of projects in ramp-up have already generated US\$ 2.2 billion in cash in an environment of challenging prices (specially for nickel) instills confidence that, once Salobo, Onça Puma, New Caledonia, Lubambe, Totten and Long Harbour are operating at full capacity, the base metals division can achieve its targeted EBITDA of US\$ 4 to US\$ 6 billion (in healthier price scenarios).

**Quarterly performance**

Adjusted EBITDA amounted to US\$ 243 million in 4Q13 from US\$ 303 million in the previous quarter. The major reasons for the decline in adjusted EBITDA were higher expenses driven by one-off items (US\$ 209 million) and lower sales prices (US\$ 63 million). One-off items included the provision for inventory loss in Onça Puma and the effluent maintenance in VNC. These impacts were partly offset by lower COGS (US\$ 191 million) and increased volumes (US\$ 25 million).

Nickel sales revenues in 4Q13 rose 10.6% on a quarter-on-quarter basis, reaching US\$ 957 million, due to stronger sales volumes, 69,000 t in 4Q13 against 62,000 t in the previous quarter. Slightly lower sales prices, US\$ 13,870 per metric ton against US\$ 13,952 in 3Q13, partially offset the increase in revenues. In 4Q13, total finished nickel production was 68,000 t, 9.6% higher than 3Q13, with gains in the Canadian operations. Onça Puma restarted operations in 4Q13 after shutdown in mid-2012 to repair one of its furnaces and, in December 2013, production was 1,300 t, about 62% of its nominal capacity of 25,000 t per year for one single furnace.

Copper sales revenues in 4Q13 decreased 11.9% quarter-on-quarter, totaling US\$ 647 million, as a consequence of lower average realized price, US\$ 6,507 per metric ton versus US\$ 7,115 in the previous quarter, and slightly reduced sales volumes, 99,000 t versus 103,000 t in 3Q13. Copper production was 94,600 t in 4Q13, matching the previous quarterly production record, due to the successful ramp-up of Salobo I, which was running just below nominal capacity in December.

PGMs (platinum group metals) sales revenues grew 14.1% in 4Q13, reaching US\$ 132 million, with higher volumes sold, 144,000 oz against 125,000 oz. In 4Q13, platinum output was 43,000 oz and palladium was 96,000 oz, 22.1% and 11.3% above 3Q13, respectively.

Gold sales reached a new all-time high figure, increasing to 94,000 oz from 85,000 oz in 3Q13, contributing to higher revenues, US\$ 118 million in 4Q13 compared to US\$ 107 million in 3Q13, as prices remained flat during the quarter. Production of gold also achieved the all-time high figure of 88,000 oz in 4Q13, 15.9% higher than 3Q13, due to the increase in Salobo's output.

Base metals costs excluding depreciation and amortization were US\$ 1.180 billion in 4Q13. After adjusting for the effects of higher volumes (US\$ 76 million) and exchange rate variations (-US\$ 5 million), costs decreased by US\$ 190 million versus 3Q13, showing a reduction across the board.

Expenses increased to US\$ 203 million in 4Q13 from US\$ 45 million in the previous quarter, due to a series of one-off effects related to: (i) provision for inventory loss in Onça Puma (US\$ 28 million), (ii) the effluent maintenance in VNC (US\$ 27 million), (iii) provision for loss related to loans to Salobo contractor (US\$ 23 million), and (iv) contract settlement with BNDES regarding Salobo's debentures (US\$ 18 million). Pre-operating and stoppage expenses totaled US\$ 215 million, an increase of US\$ 51 million in 4Q13, reflecting higher expenses with VNC and

Long Harbour in 4Q13.

## **Market Outlook**

### **Nickel**

Global nickel consumption is estimated to have grown strongly in 2013, rising by an estimated 9% year-over-year. However, expansion of new nickel supply outpaced consumption driven by growth from new projects and continued strong supply growth from China, in the form of nickel pig iron (NPI) and ferronickel (FeNi). Prices remained depressed throughout 2013.

Entering 2014, nickel demand has picked-up with noted improvement in the US, Europe, and Japan. While London Metal Exchange (LME) prices have remained low, transaction prices have started to increase as spot premiums and discounts relative to the LME have improved. More importantly, on January 12, 2014, Indonesia which we estimate

Table of Contents

represented more than 80% of the critical saprolite ores used in the production of ferro-nickel in China sustained the 2009 mining act and effectively banned the export of nickel ores. With Indonesian nickel ore exports accounting for over 20% of world refined production, this is anticipated to have a significant impact on the market in coming years if the ban is maintained. New supply capacity is anticipated to be required, as early as 2015, to keep the nickel market balanced as reduced ore availability will start to impact NPI and FeNi production in countries dependent on Indonesian ore imports.

Despite this significant development, prices have continued to trade deeply within the cost curve. The focus remains on short-term economic concerns and high inventory levels, with an estimated 30 Mt of nickel ore inventories in China and over 260,000 t of refined nickel in LME stocks. These inventories will be necessary to help bridge the time needed to allow meaningful smelter development in Indonesia, ensuring world supply continues to meet world demand in coming years. In 2014, it is our expectation that nickel prices will rise from current levels as ore stocks are drawn down and FeNi producers compete for scarce ore. Beyond 2014, we believe prices will need to trade above the cost curve to not only maintain existing levels of production outside China but to stimulate the construction of new smelting capacity in Indonesia replacing production that has been impacted by the Indonesian ore export ban.

**Copper**

Global economic growth strengthened during the second half of 2013, supporting strong demand for refined copper with estimated use having grown 5% in 2013. China continued to drive the copper market with demand growth of 10% year-on-year reaching 9.0 million tons, equivalent to 44% of global use.

On the supply side, global mine output grew 8% in 2013, as new projects ramped-up combined with improvements at existing operations. Improved concentrate availability reduced the tightness in the concentrate market. Such an increase in the supply of copper concentrates gave the smelters and refineries the upper hand to settle higher rates for concentrates treatment as the year progressed. Meanwhile, tight copper scrap availability led to higher demand for copper cathode made from concentrates as direct use of scrap declined. For this year and the next, we expect mine production to keep expanding based on prior investments.

LME copper cash prices fell during 2013, with prices trading even below US\$ 7,000/t. Prices were under pressure early in 2013, as the market focused attention on new copper supply in the coming years. Entering 2014, the market has remained well supported as a price backwardation, declining exchange stocks and firm premiums suggest good physical demand. In the longer term, continued demand growth combined with slowing project development is anticipated to keep the copper market tight. Our competitive copper operations with assets well located in the cost curve will support strong cash generation throughout the copper price cycle.

**BASE METALS BUSINESS PERFORMANCE**

**GROSS OPERATING REVENUE BY PRODUCT**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Nickel	957	865	1,015	3,889	4,145
Copper	647	734	593	2,367	2,168

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

PGMs	132	116	75	477	383
Gold	118	107	90	398	294
Silver	11	10	14	43	63
Cobalt	17	17	11	71	55
Others	15	10	13	54	24
<b>Total</b>	<b>1,897</b>	<b>1,859</b>	<b>1,811</b>	<b>7,299</b>	<b>7,133</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	4Q13	3Q13	4Q12	2013	2012
Nickel	13,869.57	13,951.61	17,500.00	14,900.24	17,866.38
Copper	6,506.62	7,115.41	7,510.35	6,709.18	7,595.44
Platinum (US\$/oz)	1,383.14	1,452.47	1,670.11	1,469.78	1,590.87
Gold (US\$/oz)	1,256.74	1,252.80	1,736.23	1,339.37	1,755.52
Silver (US\$/oz)	18.38	21.09	36.83	20.02	33.82
Cobalt (US\$/lb)	10.80	11.92	10.97	10.95	12.27

Table of Contents**VOLUME SOLD**

<b>000 metric tons</b>	<b>4Q13</b>	<b>3Q13</b>	<b>4Q12</b>	<b>2013</b>	<b>2012</b>
Nickel	69	62	58	261	232
Copper	99	103	79	353	285
Gold ( 000 oz)	94	85	52	297	168
Silver ( 000 oz)	625	483	391	2,154	1,862
PGMs ( 000 oz)	144	125	77	510	386
Cobalt (metric ton)	714	647	455	2,939	2,033

**SELECTED FINANCIAL INDICATORS**

<b>US\$ million</b>	<b>4Q13</b>	<b>3Q13</b>	<b>4Q12</b>	<b>2013</b>	<b>2012</b>
Net Revenues	1,897	1,859	1,811	7,286	7,131
Costs(1)	(1,180)	(1,300)	(1,130)	(4,665)	(4,689)
Expenses(1)	(203)	(45)	(165)	(1)	(551)
Pre-operating and stoppage expenses(1)	(215.0)	(164.0)	(314.0)	(763.0)	(894.0)
R&D expenses	(56)	(47)	(69)	(218)	(395)
Adjusted EBITDA	243	303	133	1,639	602
Depreciation and amortization	(450)	(407)	(461)	(1,766)	(1,647)
Adjusted EBIT	(207)	(104)	(328)	(127)	(1,045)
Adjusted EBIT margin (%)	(10.9)	(5.6)	(18.1)	(1.7)	(14.7)

---

(1) Net of depreciation and amortization

**Fertilizer nutrients****Annual performance**

In 2013, adjusted EBITDA for the fertilizers business, excluding the impact of loss on sale of assets and impairment charges, was negative US\$ 54 million, versus US\$ 630 million in 2012 as a result of lower prices and higher expenses. After excluding the stoppage expenses related to Rio Colorado (US\$ 394 million excluding depreciation), adjusted EBITDA generated by the existing operations of the fertilizer business was US\$ 340 million in 2013.

Gross revenues from fertilizer nutrients totaled US\$ 2.977 billion in 2013, compared to US\$ 3.777 billion in 2012, due to lower volumes and prices. The main reason for reduced volumes was the sale of Araucária, a nitrogen producing operation, on June 1st, 2013. Production of potash totaled 492,000 t in 2013 and phosphate rock output was 8.3 Mt in 2013, a new annual record driven by Bayóvar.



## Quarterly performance

Adjusted EBITDA for the fertilizers business, excluding the impairment related to Rio Colorado, decreased to negative US\$ 105 million from negative US\$ 64 million in 3Q13. The reduction in adjusted EBITDA was a result of lower sales prices (US\$ 71 million) and sales volumes (US\$ 43 million) partly offset by our efforts to reduce costs and expenses (US\$ 74 million).

Potash sales revenues in 4Q13 decreased 20.6% quarter-on-quarter amounting to US\$ 50 million. Although volumes were slightly lower, at 141,000 t vis-à-vis 152,000 t in 3Q13, the main impact on revenues was driven by the decline in the average realized price in 4Q13, US\$ 354.61 per metric ton against US\$ 414.47 in 3Q13. Production of potash totaled 126,000 t in 4Q13, 4.7% lower than in 3Q13, due to a maintenance stoppage at Taquari-Vassouras in 4Q13.

Phosphate products sales revenues in 4Q13 fell by 31.8%, totaling US\$ 423 million, mainly due to seasonally lower sales volumes. Total sales volumes of MAP were 269,000 t, TSP 128,000 t, SSP 380,000 t, DCP 110,000 t and phosphate rock 918,000 t.

Nitrogen fertilizers sales revenues in 4Q13 were 8.7% below the previous quarter, at US\$ 95 million, as a result of lower sales volumes, 172,000 t versus 184,000 t, and average sales price.

In 4Q13, fertilizer costs were US\$ 467 million, net of depreciation charges, being US\$ 9 million lower than 3Q13 after excluding the effects of lower volumes (US\$ 101 million) and exchange rate variations (US\$ 2 million). Fertilizer

Table of Contents

nutrients expenses increased to US\$ 70 million in 4Q13 against US\$ 30 million in the previous quarter. Pre-operating and stoppage expenses totaled US\$ 98 million, due to the effects of the Rio Colorado stoppage, a significant decrease from US\$ 213 million in 3Q13. Such expenses will continue to impact the income statement in 1Q14, albeit at significantly smaller amounts.

**Market Outlook**

World fertilizer market conditions were weak throughout 2013. Particularly in 4Q13, fertilizer prices were down due to the seasonal effects determined by the end of the crop season in Brazil. A decline in demand in India and China, particularly in 2H13 resulted in volumes being redirected from these markets to Brazil, further softening prices. In addition, the ramp-up of the new Maden phosphate operation in Saudi Arabia brought additional supply to the market. Potash prices also suffered with the break-up of the Belarusian Potash Company, which increased supply in the market.

Demand for potash receded in 2013, after lower prices of agricultural commodities in 4Q13 discouraged consumption of fertilizers. Moreover, India – the world's largest potash consuming country – imported less given its currency depreciation, which reached 29% in September last year.

Nevertheless, the prospects are improving. Demand from Brazil should recover in 1Q14 with farmers purchasing fertilizers for the second harvest. Additionally, demand in India and China (for potash in both countries and for phosphate in China) should pickup as the need for restocking is eminent given the low levels of stocks in the end of 4Q13.

For this year, fertilizer prices should push for higher levels as a recovery is expected in demand supported by sustained agricultural fundamentals and a firmer import from the US, China, South East Asia and possibly India.

**FERTILIZER NUTRIENTS BUSINESS PERFORMANCE****GROSS OPERATING REVENUE BY PRODUCT**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Potash	50	63	79	222	308
Phosphates	423	621	622	2,120	2,583
Nitrogen	95	104	208	543	801
Others	23	24	21	92	85
<b>Total</b>	<b>591</b>	<b>812</b>	<b>930</b>	<b>2,977</b>	<b>3,777</b>

**AVERAGE SALE PRICE**

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

US\$/metric ton	4Q13	3Q13	4Q12	2013	2012
Potash	354.61	414.47	552.45	417.32	530.12
Phosphates					
MAP	516.73	569.61	646.89	571.86	646.58
TSP	425.00	468.67	526.59	472.51	526.67
SSP	221.05	268.17	299.00	271.88	268.58
DCP	612.73	586.46	593.50	611.54	628.36
Phosphate rock	77.34	86.63	116.35	90.68	124.82
Nitrogen	552.33	565.22	624.62	610.27	597.01

**VOLUME SOLD**

000 metric tons	4Q13	3Q13	4Q12	2013	2012
Potash	141	152	143	531	581
Phosphates					
MAP	269	327	310	1,133	1,221
TSP	128	260	142	681	713
SSP	380	541	501	1,969	2,446
DCP	110	124	124	461	474
Phosphate rock	918	935	954	3,154	3,314
Others phosphates	36	46	43	177	194
Nitrogen	172	184	333	890	1,342

Table of Contents**SELECTED FINANCIAL INDICATORS**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Net Revenues	559	774	882	2,814	3,570
Costs(1)	(467)	(575)	(612)	(2,190)	(2,523)
Expenses(1)	(69)	(30)	(61)	(197)	(215)
Pre-operating and stoppage expenses(1)	(99.0)	(222.0)	(23.0)	(428.0)	(93.0)
R&D expenses	(29)	(11)	(42)	(53)	(109)
Adjusted EBITDA	(105)	(64)	144	(54)	630
Depreciation and amortization	(101)	(106)	(113)	(431)	(463)
Adjusted EBIT	(206)	(170)	31	(485)	167
Adjusted EBIT margin (%)	(36.9)	(22.0)	3.5	(17.2)	4.7

---

(1) Net of depreciation and amortization

**Logistics services    general cargo****Business Outlook**

In line with the focus on discipline in capital allocation, we agreed to sell an aggregate of 62.4% of our wholly-owned subsidiary VLI S.A. (VLI). The transaction is subject to conditions precedent, including approvals by antitrust authorities. Once the transaction is completed, we will hold 37.6% of VLI's total share capital, and will enter into a shareholders' agreement with Mitsui, FI-FGTS and Brookfield. As a consequence, VLI was accounted as assets held for sale in our quarterly financial statements. However, for comparison purposes, this performance report kept the former practice and the logistics services results were refined to reflect solely VLI performance. Other logistics services not transferred to VLI, such as CPBS, were allocated under other ferrous minerals. As of the first quarter of 2014, we will no longer report Logistics services as a business segment in our performance report.

**Annual performance**

In 2013, adjusted EBITDA (excluding loss on sale of part of VLI assets - US\$ 209 million) totaled US\$ 119 million compared to US\$ 83 million in 2012.

Revenues from logistics services for general cargo in 2013 were US\$ 1.508 billion, 11.9% higher than in 2012, reflecting elevated volumes in rail services.

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

The railroads under VLI's concessions and contracts with Vale - Norte-Sul (FNS), Centro-Atlântica (FCA), Carajás (EFC), and Vitória a Minas (EFVM) carried 29.603 billion ntk(15) in 2013, increasing 7.4% over 2012.

### Quarterly performance

Adjusted EBITDA for the logistics business in 4Q13 was negative US\$ 2 million, US\$ 79 million below 3Q13, mainly due the low volumes normally expected in the off-season (US\$ 28 million) and higher costs (US\$ 70 million), negatively affected by non recurring items, which were partly offset by lower expenses.

Following its normal seasonal pattern, revenues in 4Q13 decreased to US\$ 333 million from US\$ 404 million in the previous quarter, due to declining transported volumes.

Revenues from rail transportation of general cargo were US\$ 260 million compared to US\$ 315 million in the previous quarter, as volumes decreased to 7.038 billion ntk in 4Q13 against 8.201 billion ntk. The drop in transported volumes reflects the end of the soy crop season and the impact of heavy rainfall in the Brazilian state of Espírito Santo along the EFVM. The main cargoes carried by our railroads in 4Q13 were agricultural products (50.5%), steel industry inputs and products (32.5%), building materials and forestry products (10.9%), fuels (5.7%) and others (0.4%).

Port services revenues totaled US\$ 73 million in 4Q13. Our ports and maritime terminals handled 5.922 Mt of general cargo, 17.9% lower than the 7.211 Mt handled in 3Q13, affected also by the end of the crop season and severe rainfalls.

---

(15) Ntk=net ton kilometer.

Table of Contents

In 4Q13, costs of logistic services for general cargo excluding depreciation and amortization were US\$ 287 million against US\$ 248 million in 3Q13. After adjusting for the effects of lower volumes (-US\$ 33 million) and currency prices (US\$ 2 million), costs were up by US\$ 70 million, mainly due to higher outsourced services increase (US\$ 20 million) mostly as a result of a reversion in fiscal credit accrued in previous months. Additionally, personnel costs(16) increased by US\$ 10 million, reflecting the two-year collective agreement settled with our employees in Brazil, and a significant part of it is the one-off impact on accrued vacation and profit sharing provisions.

**LOGISTICS BUSINESS PERFORMANCE****GROSS OPERATING REVENUE BY PRODUCT**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Railroads	260	315	281	1,210	1,202
Ports	73	89	63	298	146
Total	333	404	344	1,508	1,348

**VOLUME SOLD**

000 metric tons	4Q13	3Q13	4Q12	2013	2012
Railroads (million ntk)	7,038	8,201	7,078	29,603	27,563
Ports	5,922	7,211	4,454	23,814	11,658

**SELECTED FINANCIAL INDICATORS**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Net Revenues	281	344	287	1,283	1,141
Costs(1)	(287)	(248)	(249)	(1,078)	(930)
Expenses(1)	8	(16)	(13)	(72)	(115)
R&D expenses	(4)	(3)	(7)	(14)	(13)
Adjusted EBITDA	(2)	77	18	119	83
Depreciation and amortization	(42)	(37)	(36)	(158)	(133)
Adjusted EBIT	(44)	40	(18)	(39)	(50)
Adjusted EBIT margin (%)	(15.7)	11.6	(6.3)	(3.0)	(4.4)

---

(1) Net of depreciation and amortization

---

(16) Including the effect of volumes and currency prices.



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 and reports/Financial statements](http://www.vale.com/Investors/Quarterly%20results%20and%20reports/Financial%20statements) - Vale

CONFERENCE CALL AND WEBCAST

Vale will host two conference calls and webcasts on Thursday, February 27th. 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: (5511) 2104-8901 / (55 11) 4688-6341

Participants from the US: (1 888) 700-0802

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

Access code: VALE

In English:

Participants from Brazil: (55 11) 4688-6341

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 27th, 2014.





Table of Contents

## ANNEX 1 FINANCIAL STATEMENTS

## INCOME STATEMENT

US\$ million	4Q13	3Q13	4Q12	2013	2012
<b>Gross operating revenues</b>	<b>13,606</b>	<b>12,910</b>	<b>12,537</b>	<b>48,994</b>	<b>48,753</b>
Taxes	(200)	(233)	(279)	(944)	(1,059)
<b>Net operating revenue</b>	<b>13,406</b>	<b>12,677</b>	<b>12,258</b>	<b>48,050</b>	<b>47,694</b>
Cost of goods sold	(6,983)	(6,551)	(6,972)	(25,477)	(26,449)
<b>Gross profit</b>	<b>6,423</b>	<b>6,126</b>	<b>5,286</b>	<b>22,573</b>	<b>21,245</b>
Gross margin (%)	47.9	48.3	43.1	47.0	44.5
Selling, general and administrative expenses	(362)	(315)	(577)	(1,375)	(2,240)
Research and development expenses	(276)	(205)	(460)	(815)	(1,478)
Gain (loss) from sale of assets	(366)	(58)	(129)	(424)	(506)
Others	(783)	(829)	(1,278)	(2,846)	(3,639)
<b>Operating profit</b>	<b>2,338</b>	<b>4,719</b>	<b>(1,181)</b>	<b>14,815</b>	<b>9,359</b>
Financial revenues	350	77	74	657	401
Financial expenses	(3,302)	(587)	(560)	(5,030)	(2,414)
Gains (losses) on derivatives, net	(273)	117	12	(1,033)	(120)
Monetary and exchange variation	(934)	(110)	(139)	(2,928)	(1,890)
Equity income and provision for losses	116	128	86	469	645
<b>Income before taxes</b>	<b>(1,705)</b>	<b>4,344</b>	<b>(1,708)</b>	<b>6,950</b>	<b>5,981</b>
Tax and social contribution (Current)	(5,039)	(1,422)	(614)	(7,824)	(2,529)
Tax and social contribution (Deferred)	215	530	1,600	1,239	3,686
Gain (loss) from sale of investments	41			41	
Minority shareholding participation	37	50	48	178	257
<b>Net earnings</b>	<b>(6,451)</b>	<b>3,502</b>	<b>(2,615)</b>	<b>584</b>	<b>5,454</b>
Earnings per share (US\$)	(1.25)	0.68	(0.51)	0.11	1.07
Diluted earnings per share (US\$)	(1.25)	0.68	(0.51)	0.11	1.07

## FINANCIAL RESULTS

US\$ million	4Q13	3Q13	4Q12	2013	2012
Gross interest	(360)	(309)	(315)	(1,336)	(1,250)
Debt with third parties	(359)	(308)	(311)	(1,334)	(1,238)
Debt with related parties	(1)	(1)	(4)	(2)	(12)
Tax and labor contingencies	(15)	(32)	(19)	(109)	(79)
Others	(290)	(246)	(226)	(948)	(1,085)
Financial expenses (REFIS)	(2,637)			(2,637)	
<b>Financial expenses</b>	<b>(3,302)</b>	<b>(587)</b>	<b>(560)</b>	<b>(5,030)</b>	<b>(2,414)</b>
<b>Financial income</b>	<b>350</b>	<b>77</b>	<b>74</b>	<b>657</b>	<b>401</b>
<b>Derivatives</b>	<b>(273)</b>	<b>117</b>	<b>12</b>	<b>(1,033)</b>	<b>(120)</b>
<b>Exchange and monetary gain (losses), net</b>	<b>(934)</b>	<b>(110)</b>	<b>(139)</b>	<b>(2,928)</b>	<b>(1,890)</b>
<b>Financial result, net</b>	<b>(4,159)</b>	<b>(503)</b>	<b>(613)</b>	<b>(8,334)</b>	<b>(4,023)</b>

## EQUITY INCOME BY BUSINESS SEGMENT

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

US\$ million	4Q13	3Q13	4Q12	2013	% 2013	2012	% 2012
Ferrous minerals	168	185.0	158	627	133.7	850	131.8
Coal	5	12.0	9	29	6.2	43	6.7
Base metals	(9)	(9.0)	(2)	(26)	(5.5)	(5)	(0.8)
Logistics			(2)	(1)	(0.2)	(10)	(1.6)
Steel	(46)	(56.0)	(69)	(148)	(31.6)	(160)	(24.8)
Others	(2)	(4.0)	(8)	(12)	(2.6)	(73)	(11.3)
<b>Total</b>	<b>116</b>	<b>128.0</b>	<b>86</b>	<b>469</b>	<b>100.0</b>	<b>645</b>	<b>100.0</b>

Table of Contents**BALANCE SHEET**

US\$ million	12/31/2013	9/30/2013	12/31/2012
<b>Assets</b>			
Current	24,377	24,746	22,526
Long-term	8,100	10,380	7,574
Fixed	92,120	96,151	100,477
<b>Total</b>	<b>124,597</b>	<b>131,277</b>	<b>130,577</b>
<b>Liabilities</b>			
Current	9,612	11,952	12,571
Long term	50,061	43,724	43,179
Shareholders' equity	64,924	75,601	74,827
Paid-up capital	56,101	56,101	56,101
Reserves	7,224	18,094	17,138
Non controlling interest	1,599	1,406	1,588
<b>Total</b>	<b>124,597</b>	<b>131,277</b>	<b>130,577</b>

Table of Contents**CASH FLOW**

US\$ million	4Q13	3Q13	4Q12	2013	2012
<b>Cash flows from operating activities:</b>					
Net income	(6,486)	3,452	(2,752)	408	5,110
Adjustments to reconcile net income with cash provided by operating activities:					
Depreciation, depletion and amortization	1,135	1,044	1,200	4,307	4,288
Equity in results of affiliates and joint ventures and change in provision for losses on equity investments	(116)	(128)	(86)	(469)	(645)
Deferred income taxes	(149)	(530)	(1,638)	(1,173)	(3,726)
Impairment	2,383	58	5,963	2,441	5,963
Loss on sale of property, plant and equipment	391	74	14	630	368
Gain on sale of assets	174		129	174	506
Exchange and monetary losses	183	29	300	718	887
Net unrealized derivative losses	(120)	(134)	(9)	791	614
Debentures	13	106	(48)	368	(167)
Others	(156)	72	(107)	(80)	(317)
Decrease (increase) in assets:					
Accounts receivable	(271)	(567)	125	564	1,900
Inventories	285	31	168	356	(296)
Recoverable taxes	(2,253)	23	(227)	(2,416)	177
Others	(252)	2	454	(132)	844
Increase (decrease) in liabilities:					
Suppliers	(68)	68	(276)	(117)	(168)
Payroll and related charges	268	265	422	78	185
Income tax	(150)	936	(368)	855	(143)
Goldstream transaction				1,319	
REFIS settlement	7,189			7,189	
Others	(332)	(482)	(83)	(1,019)	908
<b>Net cash provided by operating activities</b>	<b>1,668</b>	<b>4,319</b>	<b>3,181</b>	<b>14,792</b>	<b>16,288</b>
<b>Cash flows from investing activities:</b>					
Short term investments	76	447	439	357	(246)
Loans and advances receivable	40	1	5	(20)	292
Guarantees and deposits	(76)	(32)	(18)	(150)	(116)
Additions to investments	(21)	(146)	(173)	(372)	(474)
Additions to property, plant and equipment	(3,795)	(3,134)	(4,756)	(13,868)	(15,929)
Dividends received	499	63	263	834	
Proceeds from Goldstream transaction				581	
Proceeds from disposals of investment	1,935		608	2,030	974
<b>Net cash used in investing activities</b>	<b>(1,342)</b>	<b>(2,801)</b>	<b>(3,632)</b>	<b>(10,608)</b>	<b>(15,499)</b>
<b>Cash flows from financing activities:</b>					
Short-term debt, net issuances(repaysments)			(483)		67
Long-term debt	2,068	174	2,019	2,897	8,740
Repayment of long-term debt	(1,869)	(466)	(257)	(2,847)	(1,186)
Transactions of non controlling interest			92		(411)
Interest attributed to shareholders	(2,250)		(3,000)	(4,500)	(6,000)
Dividends to minority interest	(10)		(10)	(20)	(45)
<b>Net cash used in financing activities</b>	<b>(2,061)</b>	<b>(292)</b>	<b>(1,639)</b>	<b>(4,470)</b>	<b>1,165</b>
<b>Increase (decrease) in cash and cash equivalents</b>	<b>(1,735)</b>	<b>1,226</b>	<b>(2,090)</b>	<b>(286)</b>	<b>2,414</b>
	(65)	8	(29)	(225)	(112)

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

Effect of exchange rate changes on cash and cash equivalents					
Cash and cash equivalents, beginning of period	7,121	5,887	7,951	5,832	3,531
<b>Cash and cash equivalents, end of period</b>	<b>5,321</b>	<b>7,121</b>	<b>5,832</b>	<b>5,321</b>	<b>5,833</b>

**Supplemental information**

Cash paid during the period for:					
Interest on short-term debt			(7)		(8)
Interest on long-term debt	(375)	(365)	(321)	(1,535)	(1,308)
Income tax	(811)	(416)	(247)	(2,405)	(1,238)
Income taxes-settlement program	(2,594)			(2,594)	
Non-cash transactions:					
Interest capitalized	30	48	176	235	335

Table of Contents

## ANNEX 2 VOLUMES SOLD, PRICES AND MARGINS

**VOLUME SOLD - MINERALS AND METALS**

<b>000 metric tons</b>	<b>4Q13</b>	<b>3Q13</b>	<b>4Q12</b>	<b>2013</b>	<b>2012</b>
Iron ore	73,597	73,435	74,085	264,631	258,061
Pellets	11,167	10,197	10,739	40,991	45,382
Manganese ore	649	740	473	2,115	1,745
Ferroalloys	49	42	34	183	267
Thermal coal	391	139	228	726	3,134
Metallurgical coal	2,478	1,707	1,364	7,353	4,864
Nickel	69	62	58	261	232
Copper	99	103	79	353	285
Gold ( 000 oz)	94	85	52	297	168
Silver ( 000 oz)	625	483	391	2,154	1,862
PGMs ( 000 oz)	144	125	77	510	386
Cobalt (metric ton)	714	647	455	2,939	2,033
Potash	141	152	143	531	581
Phosphates					
MAP	269	327	310	1,133	1,221
TSP	128	260	142	681	713
SSP	380	541	501	1,969	2,446
DCP	110	124	124	461	474
Phosphate rock	918	935	954	3,154	3,314
Others phosphates	36	46	43	177	194
Nitrogen	172	184	333	890	1,342
Railroads (million ntk)	7,038	8,201	7,078	29,603	27,563
Ports	5,922	7,211	4,454	23,814	11,658

**AVERAGE SALE PRICES**

<b>US\$/ton</b>	<b>4Q13</b>	<b>3Q13</b>	<b>4Q12</b>	<b>2013</b>	<b>2012</b>
Iron ore	112.97	105.58	100.43	107.43	105.41
Pellets	150.17	149.55	129.97	150.22	148.89
Manganese ore	152.54	160.81	152.22	157.37	134.10
Ferroalloys	1,265.31	1,285.71	1,470.59	1,303.92	1,340.82
Thermal coal	74.68	79.14	93.57	81.17	82.39
Metallurgical coal	122.80	117.16	132.49	129.34	171.38
Nickel	13,869.57	13,951.61	17,500.00	14,900.24	17,866.38
Copper	6,506.62	7,115.41	7,510.35	6,709.18	7,595.44
Platinum (US\$/oz)	1,383.14	1,452.47	1,670.11	1,469.78	1,590.87
Gold (US\$/oz)	1,256.74	1,252.80	1,736.23	1,339.37	1,755.52
Silver (US\$/oz)	18.38	21.09	36.83	20.02	33.82
Cobalt (US\$/lb)	10.80	11.92	10.97	10.95	12.27
Potash	354.61	414.47	552.45	417.32	530.12
Phosphates					
MAP	516.73	569.61	646.89	571.86	646.58
TSP	425.00	468.67	526.59	472.51	526.67

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

SSP	221.05	268.17	299.00	271.88	268.58
DCP	612.73	586.46	593.50	611.54	628.36
Phosphate rock	77.34	86.63	116.35	90.68	124.82
Nitrogen	552.33	565.22	624.62	610.27	597.01



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

<i>%</i>	<b>4Q13</b>	<b>3Q13</b>	<b>4Q12</b>	<b>2013</b>	<b>2012</b>
Ferrous minerals	56.4	55.1	41.8	54.8	48.4
Coal	(37.1)	(72.5)	(146.0)	(66.1)	(59.2)
Base metals	(10.9)	(5.6)	(18.1)	(1.7)	(14.7)
Fertilizer nutrients	(36.9)	(22.0)	3.5	(17.2)	4.7
Logistics	(15.7)	11.6	(6.3)	(3.0)	(4.4)
<b>Total(1)</b>	<b>37.3</b>	<b>37.7</b>	<b>24.2</b>	<b>36.5</b>	<b>30.3</b>

---

(1) excluding non-recurring effects

Table of Contents

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

**(a) Adjusted EBIT**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Net operating revenues	13,406	12,677	12,258	48,050	47,694
COGS	(6,983)	(6,551)	(6,972)	(25,477)	(26,449)
SG&A	(362)	(315)	(577)	(1,375)	(2,240)
Research and development	(276)	(205)	(460)	(815)	(1,478)
Other operational expenses	(783)	(829)	(1,278)	(2,846)	(3,097)
<b>Adjusted EBIT</b>	<b>5,002</b>	<b>4,777</b>	<b>2,971</b>	<b>17,537</b>	<b>14,430</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 of gains and/or losses on sale of assets, non-recurring expenses and the inclusion of dividends received from non-consolidated affiliates. However our adjusted EBITDA is not the measure defined as EBITDA under IFRS, 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 IFRS. 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	4Q13	3Q13	4Q12	2013	2012
Operational cash flow	1,668	4,319	3,181	14,792	16,288
Income tax	5,039	1,430	614	7,824	2,529
FX and monetary losses	(183)	(29)	(65)	(962)	1,347
Financial expenses	4,357	454	506	8,506	1,859
Net working capital	(4,416)	(276)	(179)	(6,945)	(3,077)
Dividends received	499	63	263	834	460
Other	(2,991)	(136)	(4,038)	(4,092)	(5,299)
Adjustment for non-recurring items	2,664	58	4,152	2,722	5,071
<b>Adjusted EBITDA</b>	<b>6,637</b>	<b>5,883</b>	<b>4,434</b>	<b>22,679</b>	<b>19,178</b>

**(c) Net debt**

**RECONCILIATION BETWEEN Total debt AND NET DEBT**

US\$ million	4Q13	3Q13	4Q12	2013	2012
Total debt	29,727	29,776	30,546	29,727	30,546
Cash and cash equivalents	5,324	7,202	6,078	5,324	6,078
Net debt	24,403	22,574	24,468	24,403	24,468

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

US\$ million	4Q13	3Q13	4Q12	2013	2012
Total debt / LTM Adjusted EBITDA (x)	1.3	1.5	1.6	1.3	1.6
Total debt / LTM operational cash flow (x)	2.0	1.8	1.9	2.0	1.9

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

US\$ million	4Q13	3Q13	4Q12	2013	2012
Total debt / EV (%)	28.7	28.8	22.5	28.7	22.5
Total debt / total assets (%)	23.9	22.7	23.4	23.9	23.4

Enterprise value = Market capitalization + Net debt

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

US\$ million	4Q13	3Q13	4Q12	2013	2012
LTM adjusted EBITDA / LTM interest payments (x)	14.8	13.8	14.7	14.8	14.7
LTM operational profit / LTM interest payments (x)	9.7	7.6	7.2	9.7	7.2

Table of Contents

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

Table of Contents

**Signatures**

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

Date: February 26, 2014

By:

Vale S.A.  
(Registrant)

/s/ Rogerio T. Nogueira  
Rogerio T. Nogueira  
Director of Investor Relations