

Vale S.A.  
Form 6-K  
August 08, 2013  
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**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**

**August 2013**

**Vale S.A.**

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

(Address of principal executive office)

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

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

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(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- .)

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**DELIVERING ON THE PROMISES: SUSTAINING COST REDUCTION**

VALE S PERFORMANCE IN 2Q13

Rio de Janeiro, August 07, 2013 Vale S.A. (Vale) had a solid financial performance in the second quarter of 2013 (2Q13) amidst an environment of below-trend global economic growth and declining minerals and metals prices. Operating revenues were US\$ 11.3 billion, operating income, as measured by adjusted EBIT, reached US\$ 3.6 billion, adjusted EBITDA US\$ 5.0 billion, and underlying earnings US\$ 3.3 billion, US\$ 0.64 per share.

Copper, gold and coal production achieved all-time high figures, at 91,300 t(1), 63,000 oz and 2.4 Mt, respectively, while nickel output remained at 65,000 t, its best second quarter since 2Q08. Salobo is ramping up successfully, beginning to generate cash in June.

We are executing our business plan, which provides exposure to a large world-class natural resource base and multiple opportunities for shareholder value creation, underpinned by a greater focus on cost and capital management discipline, financial strength and an efficient logistics infrastructure. In this context, we are concluding important base metals projects, such as Salobo II copper, executing some world-class bulk materials projects, such as Carajás S11D iron ore and Moatize II coal, expanding the logistics network Teluk Rubiah, CLNS 11D and the Nacala Corridor to support our global operations. Simultaneously, we are divesting non-core assets, cutting research and development (R&D) expenditures, operating costs and corporate expenses and maintaining a strong balance sheet.

We have continued to deliver on our promises. The several initiatives under way are producing sequential improvements: total costs and expenses(2) fell by US\$ 736 million in 2Q13 versus 2Q12, accumulating a reduction of US\$ 1.6 billion in the first half of 2013 (1H13) compared to 1H12 driven by decreases in costs by US\$ 845 million (8%), sales, general and administrative (SG&A) expenses by US\$ 435 million (42%) and R&D by US\$ 324 million (49%)(3).

Supported by the cost cutting efforts, adjusted EBITDA remained steady at US\$ 10.2 billion in the first half of this year, declining only US\$ 304 million on a year-on-year basis, notwithstanding the US\$ 2.1 billion fall in revenues determined mostly by price decreases.

We are strongly committed to persist in our relentless efforts to pursue a cost structure consistent with continuous value creation through the cycles. In addition to our own efforts, the cost performance of 2Q13 was reached with an average Brazilian real (BRL) / US dollar (USD) exchange rate of 2.07 in 2Q13, thus highlighting potential opportunities for further savings, given that the BRL/USD stood at 2.23 at the end of 2Q13.

BM&F BOVESPA: VALE3, VALE5

NYSE: VALE, VALE.P

HKEx: 6210, 6230

EURONEXT PARIS: VALE3, VALE5

LATIBEX: XVALO, XVALP

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*IFRS*  
*2Q13*

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(1) Mt: million tons, t: ton, oz: troy ounces.

(2) Net of depreciation and loss on sale of assets.

(3) This is an accounting figure, in the investment section of this press release we disclose the amount for research and development computed in accordance with the financial disbursement.



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Iron ore sales were slightly above planned, 61.9 Mt in 2Q13 and 117.6 Mt in 1H13, and in line with 1H12. The average price for our iron ore shipments changed to US\$ 99.20 from US\$ 111.70 in 1Q13, as we managed to cushion the effect of the fall of the IODEX 62% Fe to US\$ 125.95 in 2Q13 from US\$ 148.40, given the mix of different pricing mechanisms in our sales portfolio. Revenues were sustained at US\$ 6.1 billion and adjusted EBITDA for ferrous minerals kept steady at US\$ 4.7 billion, the same level as 1Q13.

Our total debt came to US\$ 29.9 billion from US\$ 30.2 billion at the end of 1Q13, despite paying US\$ 2.25 billion in dividends and investing US\$ 3.6 billion in 2Q13, thus contributing to sustain our financial leverage at 1.6 times the adjusted EBITDA for the last twelve-month period, a low level for this stage of the cycle.

Cash position was shored up by important improvements in working capital resulting from a series of initiatives to increase efficiency and optimize capital management. The number of days of receivables was shortened to 40.1 in 2Q13 against 50.6 in 1Q13. This has contributed to free cash in the amount of US\$ 1.3 billion when compared to March 2013. Inventories also fell by US\$ 378 million in 2Q13 versus 1Q13.

One important milestone was attained in July with the granting by the Brazilian environmental protection agency (IBAMA) of the installation license (LI) for Carajás S11D, the largest, highest quality and lowest cost world-class iron ore project in the global industry. Given the combination of high quality and low operating costs, S11D has the potential to generate sizable shareholder value even in the face of a scenario of low iron ore prices.

We also reached completion of work on several projects to increase the railway capacity on the Carajás railroad (EFC), an important enabler of production growth for the Additional 40 Mtpy project.

The license to implement S11D, the improving operational performance of base metals on the back of the successful ramp-up of Salobo, and the strong financial performance supported by lower costs and expenses will uniquely position Vale to be amongst the clear winners in the natural resources industry in the years to come.

Financial highlights in 2Q13:

- Operating revenues totaled US\$ 11.3 billion, in line with 1Q13. The increase in sales volumes was partially offset by lower prices.
- Income from existing operations, as measured by adjusted EBIT(a) (earnings before interest and taxes), was US\$ 3.6 billion, versus US\$ 4.2 billion in 1Q13.
- Operating income margin of 32.7%, as measured by adjusted EBIT margin.

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- Underlying earnings(g) were US\$ 3.3 billion, equal to US\$ 0.64 per share on a fully diluted basis, against US\$ 3.1 billion in 1Q13, net of the accounting effects of non-cash and/or non-recurring items.
- Cash generation, as measured by adjusted EBITDA(b) (earnings before interest, taxes, depreciation and amortization) of US\$ 5.0 billion in 2Q13, against US\$ 5.2 billion in the previous quarter.
- Capex excluding acquisitions in 2Q13 equal to US\$ 3.6 billion, 9.8% and 16.1% lower than 1Q13 and 2Q12, respectively. R&D expenditures were reduced by US\$113 million quarter-on-quarter and US\$ 241 million year-on-year.



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- Investments in corporate social responsibility reached US\$ 262 million, US\$ 214 million of which was for environmental protection and conservation and US\$ 48 million for social projects.
- The first tranche of the US\$ 4.0 billion minimum dividend for 2013, US\$ 2.25 billion, was paid to shareholders on April 30, 2013.
- Maintenance of a strong balance sheet, with low debt leverage, measured by the ratio of total debt to LTM adjusted EBITDA excluding non-recurring items, equal to 1.6x, long average maturity, at 9.9 years, and low average cost, 4.5% per year as of June 30, 2013.

**Table 1 - SELECTED FINANCIAL INDICATORS**

| US\$ million   | 2Q13<br>(A) | 1Q13<br>(B) | 2Q12<br>(C) | %<br>(A/B) | %<br>(A/C) |
|--|-------------|-------------|-------------|------------|------------|
| Operating revenues   | 11,277      | 11,201      | 12,726      | 0.7        | (11.4)     |
| Adjusted EBIT(1)   | 3,602       | 4,156       | 4,339       | (13.3)     | (17.0)     |
| Adjusted EBIT margin(1) (%)  | 32.7        | 38.0        | 34.8        |            |            |
| Adjusted EBITDA(1)   | 4,957       | 5,202       | 5,497       | (4.7)      | (9.8)      |
| Underlying earnings(1)   | 3,287       | 3,089       | 4,081       | 6.4        | (19.5)     |
| Underlying earnings per share on a fully diluted basis(1) (US\$ / share) | 0.64        | 0.60        | 0.80        | 6.4        | (20.3)     |
| Total debt/ adjusted LTM EBITDA(1) (x)                                   | 1.6         | 1.6         | 0.9         | 1.7        | 70.7       |
| ROIC (%)   | 21.9        | 22.0        | 31.9        |            |            |
| Capital and R&D expenditures (excluding acquisitions)                    | 3,597       | 3,987       | 4,287       | (9.8)      | (16.1)     |

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

| US\$ million   | 1H13<br>(A) | 1H12<br>(B) | %<br>(B/A) |
|--|-------------|-------------|------------|
| Operating revenues   | 22,478      | 24,563      | (8.5)      |
| Adjusted EBIT(1)   | 7,758       | 8,232       | (5.8)      |
| Adjusted EBIT margin(1) (%)  | 35.3        | 34.3        |            |
| Adjusted EBITDA(1)   | 10,159      | 10,463      | (2.9)      |
| Underlying earnings(1)   | 6,376       | 7,392       | (13.7)     |
| Underlying earnings per share on a fully diluted basis(1) (US\$ / share) | 1.24        | 1.44        | (14.2)     |
| Capital and R&D expenditures (excluding acquisitions)                    | 7,584       | 7,964       | (4.8)      |

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

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

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company's independent auditors. The main subsidiaries that are consolidated are the following: Companhia Minera Miski Mayo S.A.C., Ferrovia Centro-Atlântica S.A.(FCA), Ferrovia Norte Sul S.A, Mineração Corumbaense Reunida S.A., PT Vale Indonesia Tbk (formerly International Nickel Indonesia Tbk), Sociedad Contractual Minera Tres Valles, Vale Australia Pty Ltd., Vale International Holdings GMBH, Vale Canada Limited (formerly Vale Inco Limited), Vale Fertilizantes S.A., Vale International S.A., Vale Manganês S.A., Vale Mina do Azul S.A., Vale Moçambique S.A., Vale Nouvelle-Calédonie SAS, Vale Oman Pelletizing

Company LLC and Vale Shipping Holding PTE Ltd..

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## OPERATING REVENUES

Operating revenues equaled US\$ 11.277 billion, 0.7% above 1Q13. The increase from the previous quarter was mainly due to higher shipments in 2Q13 in all business segments (US\$ 1.132 billion), composed of larger volumes of bulk materials (US\$ 886 million), base metals (US\$ 101 million), fertilizers (US\$ 62 million) and general cargo (US\$ 83 million). These gains were offset by lower prices (US\$ 1.056 billion), mostly driven by bulk materials (US\$ 897 million), base metals (US\$ 244 million) and fertilizers (US\$ 26 million).

The share of bulk materials – iron ore, pellets, manganese ore, ferroalloys, metallurgical and thermal coal – in operating revenues was 71.2%, in line with the 71.8% in 1Q13. The base metals contribution decreased to 15.1% of total revenues against 16.4% in 1Q13. Fertilizers increased slightly to 7.1% from 6.9% in 1Q13. Logistics services represented 3.8% of total revenues and other products 3.0%.

Shipments to Asia represented 50.1% of total revenues, with a slight decrease from 51.3% in 1Q13. The share of the Americas continued to increase, to 27.4% from 26.1% in 1Q13. Europe accounted for 17.8%, slightly below 18.5% in the previous quarter. The Middle East was 3.3% and the rest of the world, 1.4%.

On a country basis, the share of sales to China amounted to 31.5% of total revenues, Brazil 20.3%, Japan 10.6%, Germany 7.2%, South Korea 3.9% and the United States 3.2%.

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

| US\$ million                    | 2Q13         | %           | 1Q13         | %           | 2Q12         | %           |
|---------------------------------|--------------|-------------|--------------|-------------|--------------|-------------|
| <b>Bulk materials</b>           | <b>8,031</b> | <b>71.2</b> | <b>8,042</b> | <b>71.8</b> | <b>9,510</b> | <b>74.7</b> |
| <b>Ferrous minerals</b>         | <b>7,777</b> | <b>69.0</b> | <b>7,831</b> | <b>69.9</b> | <b>9,234</b> | <b>72.6</b> |
| Iron ore                        | 6,143        | 54.5        | 6,219        | 55.5        | 7,081        | 55.6        |
| Pellets                         | 1,498        | 13.3        | 1,458        | 13.0        | 1,952        | 15.3        |
| Manganese ore                   | 52           | 0.5         | 64           | 0.6         | 63           | 0.5         |
| Ferroalloys                     | 56           | 0.5         | 66           | 0.6         | 129          | 1.0         |
| Pellet plant operation services |              |             |              |             | 9            | 0.1         |
| Others                          | 28           | 0.2         | 24           | 0.2         |              |             |
| <b>Coal</b>                     | <b>254</b>   | <b>2.3</b>  | <b>211</b>   | <b>1.9</b>  | <b>276</b>   | <b>2.2</b>  |
| Thermal coal                    | 14           | 0.1         | 6            | 0.1         | 79           | 0.6         |
| Metallurgical coal              | 240          | 2.1         | 206          | 1.8         | 197          | 1.5         |
| <b>Base metals</b>              | <b>1,699</b> | <b>15.1</b> | <b>1,842</b> | <b>16.4</b> | <b>1,781</b> | <b>14.0</b> |
| Nickel                          | 983          | 8.7         | 1,084        | 9.7         | 1,119        | 8.8         |
| Copper                          | 472          | 4.2         | 514          | 4.6         | 458          | 3.6         |
| PGMs                            | 105          | 0.9         | 125          | 1.1         | 115          | 0.9         |
| Gold                            | 96           | 0.8         | 77           | 0.7         | 58           | 0.5         |
| Silver                          | 11           | 0.1         | 11           | 0.1         | 15           | 0.1         |
| Cobalt                          | 19           | 0.2         | 18           | 0.2         | 16           | 0.1         |
| Others                          | 14           | 0.1         | 14           | 0.1         |              |             |
| <b>Fertilizer nutrients</b>     | <b>805</b>   | <b>7.1</b>  | <b>769</b>   | <b>6.9</b>  | <b>923</b>   | <b>7.3</b>  |
| Potash                          | 52           | 0.5         | 57           | 0.5         | 81           | 0.6         |

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|                           |               |              |               |              |               |              |
|---------------------------|---------------|--------------|---------------|--------------|---------------|--------------|
| Phosphates                | 580           | 5.1          | 496           | 4.4          | 630           | 4.9          |
| Nitrogen                  | 148           | 1.3          | 196           | 1.8          | 193           | 1.5          |
| Others                    | 25            | 0.2          | 20            | 0.2          | 19            | 0.1          |
| <b>Logistics services</b> | <b>430</b>    | <b>3.8</b>   | <b>337</b>    | <b>3.0</b>   | <b>408</b>    | <b>3.2</b>   |
| Railroads                 | 350           | 3.1          | 281           | 2.5          | 294           | 2.3          |
| Ports                     | 80            | 0.7          | 56            | 0.5          | 114           | 0.9          |
| <b>Others</b>             | <b>312</b>    | <b>2.8</b>   | <b>211</b>    | <b>1.9</b>   | <b>104</b>    | <b>0.8</b>   |
| <b>Total</b>              | <b>11,277</b> | <b>100.0</b> | <b>11,201</b> | <b>100.0</b> | <b>12,726</b> | <b>100.0</b> |

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| US\$ million             | 2Q13          | %            | 1Q13          | %            | 2Q12          | %            |
|--------------------------|---------------|--------------|---------------|--------------|---------------|--------------|
| <b>North America</b>     | <b>603</b>    | <b>5.3</b>   | <b>631</b>    | <b>5.6</b>   | <b>686</b>    | <b>5.4</b>   |
| USA                      | 360           | 3.2          | 316           | 2.8          | 410           | 3.2          |
| Canada                   | 237           | 2.1          | 310           | 2.8          | 265           | 2.1          |
| Mexico                   | 5             |              | 5             |              | 11            | 0.1          |
| <b>South America</b>     | <b>2,492</b>  | <b>22.1</b>  | <b>2,290</b>  | <b>20.4</b>  | <b>2,523</b>  | <b>19.8</b>  |
| Brazil                   | 2,284         | 20.3         | 2,100         | 18.7         | 2,312         | 18.2         |
| Others                   | 209           | 1.8          | 191           | 1.7          | 212           | 1.7          |
| <b>Asia</b>              | <b>5,646</b>  | <b>50.1</b>  | <b>5,746</b>  | <b>51.3</b>  | <b>6,776</b>  | <b>53.2</b>  |
| China                    | 3,552         | 31.5         | 4,442         | 39.7         | 4,346         | 34.2         |
| Japan                    | 1,196         | 10.6         | 498           | 4.4          | 1,273         | 10.0         |
| South Korea              | 441           | 3.9          | 358           | 3.2          | 591           | 4.6          |
| Taiwan                   | 278           | 2.5          | 282           | 2.5          | 356           | 2.8          |
| Others                   | 179           | 1.6          | 166           | 1.5          | 210           | 1.6          |
| <b>Europe</b>            | <b>2,011</b>  | <b>17.8</b>  | <b>2,067</b>  | <b>18.5</b>  | <b>2,328</b>  | <b>18.3</b>  |
| Germany                  | 807           | 7.2          | 681           | 6.1          | 744           | 5.8          |
| France                   | 167           | 1.5          | 309           | 2.8          | 149           | 1.2          |
| Netherlands              | 77            | 0.7          | 102           | 0.9          | 73            | 0.6          |
| UK                       | 251           | 2.2          | 200           | 1.8          | 214           | 1.7          |
| Italy                    | 301           | 2.7          | 283           | 2.5          | 498           | 3.9          |
| Turkey                   | 50            | 0.4          | 62            | 0.6          | 124           | 1.0          |
| Spain                    | 89            | 0.8          | 81            | 0.7          | 108           | 0.8          |
| Others                   | 269           | 2.4          | 349           | 3.1          | 418           | 3.3          |
| <b>Middle East</b>       | <b>368</b>    | <b>3.3</b>   | <b>343</b>    | <b>3.1</b>   | <b>289</b>    | <b>2.3</b>   |
| <b>Rest of the World</b> | <b>157</b>    | <b>1.4</b>   | <b>123</b>    | <b>1.1</b>   | <b>124</b>    | <b>1.0</b>   |
| <b>Total</b>             | <b>11,277</b> | <b>100.0</b> | <b>11,201</b> | <b>100.0</b> | <b>12,726</b> | <b>100.0</b> |

## COSTS AND EXPENSES

Costs and expenses performed in accordance with our plans and initiatives, aiming to deliver a lower cost structure on a permanent basis to allow for shareholder value creation through the cycles. This year the reduction of costs and expenses has been an important source of improvement to our financial performance. However, as we have stressed on various occasions this is a long process, where persistence and patience are critical factors.

Compared to 2Q12, total costs and expenses, net of depreciation charges, showed a material contraction in 2Q13, with savings of US\$ 736 million, whilst costs and expenses in 1H13 were US\$ 1.6 billion lower than in 1H12. This performance was achieved notwithstanding the new state mining taxes (TFRM) that impacted costs in 2Q13 (US\$ 48 million), amounting to US\$ 98 million in 1H13, against a zero impact in the first half of last year.

After adjusting for the effects of higher volumes (US\$ 695 million), COGS (cost of goods sold) was down US\$ 192 million when compared to 1Q13 with most of the items reducing. Volatility of currency prices helped to decrease COGS by US\$ 133 million(4).

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Cost of materials 16.3% of COGS was US\$ 1.014 billion, up 5.7% against 1Q13. After adjusting for volumes and exchange rate variations, there was a net decrease of US\$ 28 million, as a consequence of lower costs with materials for the phosphates operations amounting to US\$ 31 million due to the change in product mix.

The cost of purchasing products from third parties amounted to US\$ 412 million 6.6% of COGS against US\$ 284 million in 1Q13 and US\$ 377 million in 2Q12. Purchases of iron ore came to 2.4 Mt, increasing from 1.8 Mt in 1Q13.

We bought 1,600 t of finished and intermediary nickel against 1,300 t in 1Q13 and 6,100 t of copper, versus 7,800 t in 1Q13. The costs of purchasing other products amounted to US\$ 185 million in 2Q13. These include mostly precious metals to be processed at the Acton refinery to fill idle capacity.

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(4) COGS currency exposure in 2Q13 was made up as follows: 54% Brazilian reais, 27% US dollar, 14% Canadian dollars, 3% Australian dollars and 2% other currencies

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Maritime freight costs reached US\$ 679 million in 2Q13, which as stated previously are fully accrued as cost of goods sold. The freight costs in the 2Q13 were US\$ 76 million above 1Q13 due to different routes used, such as a higher portion of shipments from Corumbá to Asia, and longer queues in the Ponta da Madeira maritime terminal(5).

Other operational costs reached US\$ 597 million in line with the US\$ 590 million in 1Q13. The TFRM was US\$ 48 million in 2Q13, a reduction of US\$ 2 million vis-à-vis 1Q13. CFEM, Brazil's federal mining royalty, was US\$ 119 million, US\$ 14 million higher than 1Q13.

In 2Q13, SG&A expenses fell by 47.3% on a year-on-year basis, a reduction of US\$ 291 million. When compared to 1Q13, SG&A expenses diminished 13.4%, with savings of US\$ 50 million. R&D expenditures(6) were also curtailed, totaling US\$ 158 million, against US\$ 359 million in 2Q12 and US\$ 176 million in 1Q13.

In 2Q13, we revised the concept of pre-operating, stoppage and idle capacity expenses to pre-operating and stoppage. Pre-operating and stoppage expenses(7) increased to US\$ 462 million from US\$ 375 million in 1Q13.

Pre-operating expenses were US\$ 323 million in 2Q13, reflecting the expenses of VNC (US\$ 168 million), Long Harbour (US\$ 43 million), S11D (US\$ 28 million) and Conceição Itabirito (US\$ 15 million). Once projects ramp up and revenues start to cover costs, pre-operating expenses will be shifted to cost of goods sold. Pre-operating expenses also include costs with oversight of projects in the construction phase, which explains the increasing significance of such expenses for S11 D, for example.

Stoppage expenses reached US\$ 139 million in 2Q13, stemming from the suspension of Rio Colorado (US\$ 76 million), and the shutdown of pellet plants (US\$ 28 million) and Onça Puma (US\$ 35 million).

Other operating expenses increased US\$ 129 million compared to 1Q13, reaching US\$ 263 million in 2Q13. Excluding the one-off effect of the gold streaming transaction, other expenses decreased US\$ 115 million in 2Q13. The comparison with 2Q12 is also positive with a decrease of US\$ 17 million from US\$ 280 million.

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(5) Demurrage charges reached US\$ 81 million in 2Q13, against US\$100 million in 1Q13. It is worthwhile noting that in the case of chartered vessels working under time-charter contracts demurrage charges are expensed against the cost of maritime freight. In contrast, demurrage charges from voyage-chartered vessels are accounted for in other costs.

(6) This is an accounting figure. In the investment section of this press release we disclose the amount of US\$ 155 million for research and development, computed in accordance with the financial disbursement in 2Q13.

(7) Including depreciation.





Table of Contents**Table 4 - COGS AND EXPENSES COGS**

| US\$ million                            | 2Q13         | %            | 1Q13         | %            | 2Q12         | %            |
|---|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Outsourced services</b>              | <b>978</b>   | <b>15.7</b>  | <b>868</b>   | <b>15.2</b>  | <b>1,285</b> | <b>19.6</b>  |
| Cargo freight                           | 305          | 4.9          | 248          | 4.3          | 323          | 4.9          |
| Maintenance of equipment and facilities | 168          | 2.7          | 163          | 2.8          | 215          | 3.3          |
| Operational Services                    | 98           | 1.6          | 134          | 2.3          | 281          | 4.3          |
| Others                                  | 407          | 6.5          | 323          | 5.7          | 466          | 7.1          |
| <b>Material</b>                         | <b>1,014</b> | <b>16.3</b>  | <b>959</b>   | <b>16.8</b>  | <b>1,091</b> | <b>16.7</b>  |
| Spare parts and maintenance equipment   | 291          | 4.7          | 279          | 4.9          | 357          | 5.5          |
| Inputs                                  | 462          | 7.4          | 448          | 7.8          | 524          | 8.0          |
| Tires and conveyor belts                | 56           | 0.9          | 134          | 2.3          | 55           | 0.8          |
| Others                                  | 205          | 3.3          | 98           | 1.7          | 154          | 2.4          |
| <b>Energy</b>                           | <b>639</b>   | <b>10.3</b>  | <b>621</b>   | <b>10.9</b>  | <b>741</b>   | <b>11.3</b>  |
| Fuel and gases                          | 490          | 7.9          | 461          | 8.1          | 527          | 8.0          |
| Electric energy                         | 149          | 2.4          | 160          | 2.8          | 213          | 3.3          |
| <b>Acquisition of products</b>          | <b>412</b>   | <b>6.6</b>   | <b>284</b>   | <b>5.0</b>   | <b>377</b>   | <b>5.8</b>   |
| Iron ore and pellets                    | 110          | 1.8          | 66           | 1.2          | 221          | 3.4          |
| Nickel products                         | 117          | 1.9          | 118          | 2.1          | 85           | 1.3          |
| Other products                          | 185          | 3.0          | 100          | 1.7          | 72           | 1.1          |
| <b>Personnel</b>                        | <b>836</b>   | <b>13.4</b>  | <b>786</b>   | <b>13.7</b>  | <b>909</b>   | <b>13.9</b>  |
| <b>Freight</b>                          | <b>679</b>   | <b>10.9</b>  | <b>603</b>   | <b>10.5</b>  | <b>576</b>   | <b>8.8</b>   |
| <b>Depreciation and exhaustion</b>      | <b>975</b>   | <b>15.7</b>  | <b>927</b>   | <b>16.2</b>  | <b>940</b>   | <b>14.3</b>  |
| <b>Shared services</b>                  | <b>93</b>    | <b>1.5</b>   | <b>82</b>    | <b>1.4</b>   | <b>76</b>    | <b>1.2</b>   |
| <b>Others</b>                           | <b>597</b>   | <b>9.6</b>   | <b>590</b>   | <b>10.3</b>  | <b>557</b>   | <b>8.5</b>   |
| <b>Total</b>                            | <b>6,223</b> | <b>100.0</b> | <b>5,720</b> | <b>100.0</b> | <b>6,552</b> | <b>100.0</b> |

**SG&A, R&D and other expenses**

| US\$ million                               | 2Q13         | %            | 1Q13         | %            | 2Q12         | %            |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>SG&amp;A</b>                            | <b>324</b>   | <b>26.8</b>  | <b>374</b>   | <b>35.3</b>  | <b>615</b>   | <b>39.0</b>  |
| Administrative                             | 296          | 24.5         | 336          | 31.7         | 483          | 30.6         |
| Personnel                                  | 139          | 11.5         | 154          | 14.5         | 193          | 12.2         |
| Services                                   | 66           | 5.5          | 72           | 6.8          | 118          | 7.5          |
| Depreciation                               | 41           | 3.4          | 55           | 5.2          | 52           | 3.3          |
| Others                                     | 50           | 4.1          | 55           | 5.2          | 120          | 7.6          |
| Selling                                    | 28           | 2.3          | 38           | 3.6          | 132          | 8.4          |
| <b>R&amp;D</b>                             | <b>158</b>   | <b>13.1</b>  | <b>176</b>   | <b>16.6</b>  | <b>359</b>   | <b>22.8</b>  |
| <b>Pre-operating and stoppage expenses</b> | <b>462</b>   | <b>38.3</b>  | <b>375</b>   | <b>35.4</b>  | <b>324</b>   | <b>20.5</b>  |
| <b>Other operating expenses</b>            | <b>263</b>   | <b>21.8</b>  | <b>134</b>   | <b>12.7</b>  | <b>280</b>   | <b>17.7</b>  |
| <b>Total(1)</b>                            | <b>1,207</b> | <b>100.0</b> | <b>1,059</b> | <b>100.0</b> | <b>1,578</b> | <b>100.0</b> |

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

NET EARNINGS

Underlying earnings in 2Q13 were US\$ 3.287 billion, equal to US\$ 0.64 per share on a fully diluted basis, against US\$ 3.089 billion in 1Q13. Underlying earnings are net of the accounting effects of non-cash and/or non-recurring items which for 2Q13 included: (i) mark-to-market of shareholder debentures (-US\$ 84 million), (ii) foreign exchange and monetary losses (-US\$ 1.965 billion) and (iii) currency swap losses (-US\$ 814 million).

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Including these accounting items, which do not affect our actual financial performance, but are required by the generally accepted accounting rules for IFRS to be charged against our financial result, our net earnings were US\$ 424 million in 2Q13(8).

Net financial results were negative US\$ 3.327 billion in 2Q13, versus negative US\$ 345 million in the previous quarter. The strong appreciation of the USD against the BRL 10.5% comparing prices at the end of 2Q13 and 1Q13 was the main contributor to the negative foreign exchange and monetary swing of US\$ 1.965 billion.(9)

Financial revenues totaled US\$ 158 million, more than double last quarter's US\$ 71 million. Financial expenses decreased to US\$ 537 million from US\$ 604 million in the previous quarter, mainly due to the lower negative non-cash charge of US\$ 84 million related to the mark-to-market of shareholders' debentures, compared to a negative effect of US\$ 172 million in 1Q13.

The mark-to-market of derivatives presented a non-cash loss of US\$ 983 million, compared to a gain of US\$ 106 million in 1Q13, with a positive cash effect of US\$ 71 million.

Breakdown of the effect of derivatives:

- Currency and interest rate swaps resulted in a negative non-cash effect of US\$ 814 million but a positive effect on cash flow of US\$ 97 million.
- Nickel derivatives produced a positive non-cash effect of US\$ 1 million and a positive cash flow impact of US\$ 1 million.
- Derivative transactions related to bunker oil had a negative non-cash charge of US\$ 117 million and a negative cash flow effect of US\$ 24 million.
- Warrants of Silver Wheaton Corp. (SLW), that were part of the payment received under the gold sale agreement, are marked-to-market and had a negative non-cash impact of US\$ 47 million, with no effect on the cash flow.(10)

Equity income from affiliated companies totaled US\$ 53 million in 2Q13, down from US\$ 172 million in 1Q13. The decrease of US\$ 119 million was mostly due to reduced income from bulk materials (US\$ 84 million).

Individually, the greatest contributors to equity income were Samarco (US\$ 71 million) and MRS (US\$ 23 million). Our stake in CSA generated an equity loss of US\$ 46 million in 2Q13.

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(8) Had we adopted IFRS hedge accounting rules for the US dollar-denominated liabilities, we would have posted actual IFRS earnings in line with underlying earnings as presented in the box Effects of currency price volatility of Vale's financial performance .

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(9) For a detailed description of effects of currency price changes on our financial performance please see the previously mentioned box.

(10) For more information please see the press release Vale to sell a portion of the gold by-product stream from some of its copper and nickel mines announced on February 5, 2013, available in our website, [www.vale.com](http://www.vale.com) on the Investors section, under Press Releases.

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**EFFECTS OF CURRENCY PRICE VOLATILITY ON VALE S FINANCIAL PERFORMANCE**

As a consequence of various factors, including the financial asset price volatility influenced by expectations about a change in the US monetary policy stance, the BRL underwent a significant depreciation in 2Q13 against the USD. The price of the USD rose 10.5% to BRL 2.23 as of July 1st, 2013, from BRL 2.02 as of April 1st, 2013. If we take only quarterly average exchange rates, the depreciation of BRL was a milder 3.5%: BRL 2.07/ USD in 2Q13 against BRL 2.00/USD in 1Q13.

As previously explained, the main effects arise due to the fact that, although we report our financial performance in USD, the functional currency for accounting purposes of our parent company, Vale S. A., is the BRL.

Given this accounting rule, a depreciation of the BRL, as well as other currencies, against the USD produces a non-cash effect on earnings before taxes through its impact on net financial liabilities – USD denominated debt minus accounts receivable in USD. This exchange rate impact amounted to a loss of US\$ 1.961 billion in 2Q13, recorded in the financial statements as Foreign exchange rate and monetary variations , reducing our earnings before taxes.

A second non-cash impact comes through forward and swaps derivatives that are used to minimize the volatility of our cash flow in USD. In 2Q13, the fair value variations of the currency swaps from BRL and other currencies to USD caused one-off losses of US\$ 814 million, which reduced our earnings before taxes but without producing any cash flow or even adjusted EBITDA effect. At the settlement date of the currency swaps, all else constant and in USD equivalent, we will have a lower cash disbursement to pay debt principal and interest offset by a higher disbursement with the liquidation of the currency swap. Therefore, the effect of the currency depreciation through derivatives is cash neutral.

The last effect of the BRL depreciation affects earnings before taxes, operational cash flow, adjusted EBIT and adjusted EBITDA. It stems from the asymmetry in the currency composition of our revenues and costs of goods sold. While most of our revenues are USD-denominated, 54% of our costs of goods sold were denominated in BRL and 14% in Canadian dollars (CAD), with only a portion in USD (27%). In case the exchange rates levels of the end of 2Q13 persist, this effect will generate positive impacts on earnings before taxes, operational cash flow, adjusted EBIT and adjusted EBITDA in the following quarters.

Therefore, we see potential opportunities for savings, given that the USD appreciation had a small effective impact – net positive influence on operational cash flow, adjusted EBIT and adjusted EBITDA of US\$ 155 million. This is explained by the fact that the depreciation of the average BRL/USD exchange rate (3.5%), relevant for the measurement of the impact on flow variables was smaller than the one used for assessing the effect on stock variables (10.5%), as the bulk of the BRL devaluation took place during June, the last month of the quarter.

Additionally, it is worth considering that the depreciation of the BRL also generates a positive effect on our cash flow through the impact on capital expenditures, of which more than half is BRL-denominated.

In conclusion, the impact of a BRL depreciation on revenues/expenditures is a cash effect and if not reversed by an appreciation will continue to produce positive results on operational cash flow, adjusted EBIT, adjusted EBITDA, earnings before taxes and capital expenditures in the future,

while the derivatives effect is cash neutral and one-off, and the balance sheet effect is non-cash and one-off. Hence, the BRL depreciation generates positive effects on our cash flow, which is the real source of value creation, although with the opposite effect on accounting earnings.

**Evaluation of hedge accounting under IFRS**

In order to minimize the volatility of our accounting earnings and to allow our financial statements to better reflect the economic performance of our company, we are evaluating using for future periods the implementation of Hedge Accounting Programs in accordance with IFRS rules (IAS 39), which will allow our revenues to serve as a hedged item for hedge accounting purposes. The evaluation encompasses segmentation of programs, efficiency tests, and proper documentation.

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In this respect, and based on our preliminary studies, the adoption of this program in relation to our net financial liabilities could reduce our foreign exchange loss by approximately US\$ 2.006 billion in 2Q13 (and reduce foreign exchange gain by US\$ 272 million in 1Q13). Additionally, if similar programs had been adopted in relation to our currency swaps from BRL and other currencies to USD used for cash flow hedging, they could have eliminated a loss of approximately US\$ 814 million recorded in Derivatives in 2Q13 (and eliminated a gain of US\$ 110 million in 1Q13).

If the programs had been in place during 2013, our pro-forma results would be as detailed below:

| US\$ million  | Reported     | 2Q13             |                |              | 1Q13             |                |           | Pro-forma    |
|---|--------------|------------------|----------------|--------------|------------------|----------------|-----------|--------------|
|   |              | Hedge Accounting | Currency swaps | Pro-forma    | Hedge Accounting | Currency swaps | Pro-forma |              |
| Net operating revenue                                     | 11,032       |                  |                | 11,032       | 10,935           |                |           | 10,935       |
| Cost of goods sold  | (6,223)      |                  |                | (6,223)      | (5,720)          |                |           | (5,720)      |
| Operating expenses (net)                                  | (1,207)      |                  |                | (1,207)      | (1,059)          |                |           | (1,059)      |
| <b>Operating Income</b>                                   | <b>3,602</b> |                  |                | <b>3,602</b> | <b>4,156</b>     |                |           | <b>4,156</b> |
| Financial income (expenses), net                          | (379)        |                  |                | (379)        | (533)            |                |           | (533)        |
| Foreign exchange rate and Monetary variations, net        | (1,965)      | 2,006            |                | 41           | 82               | (272)          |           | (190)        |
| Derivatives   | (983)        |                  | 814            | (169)        | 106              |                | (110)     | (4)          |
| Equity results  | 53           |                  |                | 53           | 172              |                |           | 172          |
| <b>Income before taxes</b>                                | <b>328</b>   |                  |                | <b>3,148</b> | <b>3,983</b>     |                |           | <b>3,601</b> |
| Income taxes  | 62           |                  |                | 62           | (931)            |                |           | (931)        |
| Loss attributable to non- controlling interest            | 34           |                  |                | 34           | 57               |                |           | 57           |
| <b>Net income attributable to the Vale s shareholders</b> | <b>424</b>   |                  |                | <b>3,244</b> | <b>3,109</b>     |                |           | <b>2,727</b> |

**OPERATING INCOME AND CASH GENERATION**

Operating income, as measured by adjusted EBIT, was US\$ 3.602 billion, decreasing 13.3% against 1Q13, while the adjusted EBIT margin was 32.7%, down from 38.0% in the previous quarter.

Cash generation, as measured by adjusted EBITDA, was US\$ 4.957 billion, down from US\$ 5.202 billion in 1Q13. The negative impact of lower prices (US\$ 1.036 billion) was the main factor underlying the decrease in cash generation, as it was only partly mitigated by the positive effects of higher volumes (US\$ 506 million) and dividends received from non-consolidated affiliated companies (US\$ 273 million), lower COGS (US\$ 58 million) and SG&A (US\$ 36 million) and exchange rate variations (US\$ 114 million).



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Before R&D expenditures, the share of bulk materials in cash generation increased to 89.4%, up from 84.3% in the previous quarter, while base metals decreased to 8.7% from 14.2%. The share of logistics increased to 1.1% from -0.2%, while fertilizers decreased to 0.7% from 1.7%.

Table of Contents**Table 5 - ADJUSTED EBITDA**

| US\$ million                            | 2Q13         | 1Q13         | 2Q12         |
|---|--------------|--------------|--------------|
| Net operating revenues                  | 11,032       | 10,935       | 12,469       |
| COGS                                    | (6,223)      | (5,720)      | (6,552)      |
| SG&A                                    | (324)        | (374)        | (615)        |
| Research and development                | (158)        | (176)        | (359)        |
| Other operational expenses              | (725)        | (509)        | (604)        |
| <b>Adjusted EBIT(1)</b>                 | <b>3,602</b> | <b>4,156</b> | <b>4,339</b> |
| Depreciation, amortization & exhaustion | 1,082        | 1,046        | 1,046        |
| Dividends received                      | 273          |              | 112          |
| <b>Adjusted EBITDA(1)</b>               | <b>4,957</b> | <b>5,202</b> | <b>5,497</b> |

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(1) Excluding non-recurring effects

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

| US\$ million                | 2Q13         | 1Q13         | 2Q12         |
|-----------------------------|--------------|--------------|--------------|
| <b>Bulk materials</b>       | <b>4,630</b> | <b>4,485</b> | <b>5,490</b> |
| Ferrous minerals            | 4,699        | 4,701        | 5,597        |
| Coal                        | (69)         | (216)        | (107)        |
| <b>Base metals</b>          | <b>451</b>   | <b>757</b>   | <b>210</b>   |
| <b>Fertilizer nutrients</b> | <b>38</b>    | <b>90</b>    | <b>183</b>   |
| <b>Logistics</b>            | <b>59</b>    | <b>(10)</b>  | <b>14</b>    |
| <b>Others</b>               | <b>(221)</b> | <b>(120)</b> | <b>(400)</b> |
| <b>Total</b>                | <b>4,957</b> | <b>5,202</b> | <b>5,497</b> |

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(1) Excluding non-recurring effects

## CAPITAL AND R&amp;D EXPENDITURES

Vale is strongly committed to discipline in capital allocation and project execution. In addition to approve and grant funds to new projects only with mature design and engineering, the undergoing transformation includes higher focus on construction and contractor management in order to minimize deviations to plans.

Investments excluding acquisitions in 1H13 reached US\$ 7.584 billion, a decrease of US\$ 380 million compared to the US\$ 7.964 billion invested in the same period of 2012. R&D expenditures showed a significant reduction, 38.9%, compared with the first half of 2012, as a result of the decision to focus on a smaller and more selected pipeline of projects, which will translate into a higher rate of return on the asset portfolio and which is consistent with the greater focus on discipline in capital allocation.

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Vale invested(11) US\$ 3.597 billion in 2Q13. US\$ 2.340 billion was spent on project execution, US\$ 155 million on R&D, and US\$ 1.102 billion on the maintenance of existing operations. The allocation of capex by business areas in 2Q13 was: US\$ 2.088 billion for bulk materials, US\$ 830 million for base metals, US\$ 337 million for fertilizers, US\$ 128 million for logistics services for general cargo, US\$ 89 million for steel projects, US\$ 55 million for power generation and US\$ 69 million for corporate activities and other business segments.

Capex dedicated to projects was concentrated on our main programs, especially the expansion of our Carajás integrated iron ore operations including the Carajás Serra Sul S11D/CLN S11D, Additional 40 Mtpy, CLN 150 and Serra Leste projects with US\$ 701 million, Moatize II/Nacala, US\$ 268 million, Long Harbour integrated nickel smelting and refining plant, US\$ 266 million and Itabirito projects, US\$ 247 million.

It is worth considering that the depreciation of the BRL also generates significant savings in capital expenditures, once more than half of them are BRL-denominated. For example, BRL expenditures represent around 90% of the

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

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budget for the S11D program, which is our largest project. Such savings are not yet reflected in the expected capex for the approved projects under construction.

An important step for our future growth was achieved in July, with the granting of the LI for the S11D project. S11D is the highest grade and lowest cash-cost world-class project in the iron ore industry, with a nominal capacity of 90 million metric tons per year of iron ore. It is seated in a deposit with proven and probable reserves of 4.240 billion metric tons with an average ferrous content of 66.7% and low impurities while its estimated operational cash cost (mine, plant, railway and port after royalties) is US\$ 15.00 per metric ton (at a BRL 2.00 per USD exchange rate). S11D is expected to start up in 2H16 and to deliver full capacity production in the 2018 calendar year.

With the issuance of the LI, Vale's Board of Directors approved the CLN S11D project that provides for the expansion of the logistics infrastructure existing in the Northern System to support the 90 Mtpy iron ore capacity increase to be delivered by S11D. The total capex budget for S11D is US\$ 19.671 billion, estimated at a 2.00 BRL/USD exchange rate, encompassing the development of mine and processing plant (US\$ 8.089 billion) and logistics (US\$ 11.582 billion).

CLN S11D will increase our logistics capacity to 230 Mtpy and involves the construction of a rail spur, new railway sections with dual tracks, rail terminals and onshore and offshore port infrastructure. The capex for CLN S11D comprises investments in logistics of US\$ 10.363 billion, US\$ 1.036 billion for rolling stock and US\$ 183 million transferred from CLN 150 to CLN S11D.

As an example of the capital discipline, the detailed engineering for the whole program of S11D (S11D and CLN S11D) is almost fully completed and the equipment and services packages are 23% contracted and 45% to be hired with firm proposals. As a result of such maturity, the probability of capex overruns was minimized and savings of contracted services over budget which have been already achieved have a better a chance of being secured until the completion of the project.

Three important projects in the iron ore business are reaching conclusion in 2H13: (a) Additional 40 Mtpy, that will increase dry iron ore processing capacity at Carajás by 40 Mtpy; (b) CLN 150, which provides rail and port capacity expansion for the Northern System; (c) Conceição Itabiritos, that adds 12 Mtpy of capacity, and contributes to extend mine life and improve quality. In the nickel business Long Harbour and Totten are coming on stream as well.

In 2Q13, sustaining capital expenditures of US\$ 1.102 billion were concentrated in iron ore and base metals. The maintenance investments in iron ore included: (i) replacement and acquisition of new equipment (US\$ 196 million), (ii) expansion of tailing dams (US\$ 58 million), (iii) infrastructure enhancement (US\$ 32 million) and (iv) initiatives to improve the current standards of health and safety and environmental protection (US\$ 17 million). Maintenance of railways and ports serving our mining operations in Brazil totaled US\$ 146 million.

Sustaining capex in the base metals operations was mainly dedicated to rebuilding the Onça Puma furnace #1 (US\$ 56 million), the AER (atmospheric emission reduction) project (US\$ 39 million), the development of ore bodies and increase in recovery rates and grades in the nickel mines (US\$ 35 million), and projects related to the improvement of production processes in the copper mines (US\$ 13 million).

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In 2Q13, R&D investments comprised expenditures of US\$ 50 million in mineral exploration, US\$ 101 million in conceptual, pre-feasibility and feasibility studies for projects and US\$ 4 million to develop new processes, technological innovations and adaptation of technologies. R&D investments dropped 60.9% when compared to 2Q12 and 42.2% against 1Q13, as a result of our continuous effort to slash R&D expenditures.

Investments in corporate social responsibility reached US\$ 262 million in the quarter, US\$ 214 million of which was destined for environmental protection and conservation and US\$ 48 million for social projects.

In 2Q13, our Board of Directors approved a budget increase for Vargem Grande Itabiritos to US\$ 1.910 billion from US\$ 1.645 billion. The Vargem Grande Itabiritos project has been facing cost pressures since late 2012 due to the poor performance of contractors, engulfed in financial stress that ultimately led to their replacement.

Market tightness in Brazil during the construction boom of 2010, forced the hiring of second-tier service suppliers, since most first-tier construction companies were not available. This has changed and the market environment for engineering services now allows us to hire more efficient and financially sound contractors reducing the risks of overruns.

Table of Contents**Table 7 - CAPITAL AND R&D EXPENDITURES BY CATEGORY**

| US\$ million            | 2Q13         | %            | 1Q13         | %            | 2Q12         | %            |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Organic growth</b>   | <b>2,494</b> | <b>69.3</b>  | <b>2,993</b> | <b>75.1</b>  | <b>3,260</b> | <b>76.0</b>  |
| Projects                | 2,340        | 65.0         | 2,725        | 68.4         | 2,864        | 66.8         |
| R&D                     | 155          | 4.3          | 268          | 6.7          | 396          | 9.2          |
| <b>Stay-in-business</b> | <b>1,102</b> | <b>30.7</b>  | <b>994</b>   | <b>24.9</b>  | <b>1,027</b> | <b>24.0</b>  |
| <b>Total</b>            | <b>3,597</b> | <b>100.0</b> | <b>3,987</b> | <b>100.0</b> | <b>4,287</b> | <b>100.0</b> |

**Table 8 - CAPITAL AND R&D EXPENDITURES BY BUSINESS AREA**

| US\$ million                | 2Q13         | %            | 1Q13         | %            | 2Q12         | %            |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Bulk materials</b>       | <b>2,088</b> | <b>58.0</b>  | <b>2,082</b> | <b>52.2</b>  | <b>2,390</b> | <b>55.8</b>  |
| Ferrous minerals            | 1,779        | 49.4         | 1,869        | 46.9         | 2,041        | 47.6         |
| Coal                        | 309          | 8.6          | 213          | 5.3          | 349          | 8.1          |
| <b>Base metals</b>          | <b>830</b>   | <b>23.1</b>  | <b>982</b>   | <b>24.6</b>  | <b>1,038</b> | <b>24.2</b>  |
| <b>Fertilizer nutrients</b> | <b>337</b>   | <b>9.4</b>   | <b>382</b>   | <b>9.6</b>   | <b>516</b>   | <b>12.0</b>  |
| <b>Logistics services</b>   | <b>128</b>   | <b>3.6</b>   | <b>216</b>   | <b>5.4</b>   | <b>130</b>   | <b>3.0</b>   |
| <b>Power generation</b>     | <b>55</b>    | <b>1.5</b>   | <b>107</b>   | <b>2.7</b>   | <b>71</b>    | <b>1.6</b>   |
| <b>Steel</b>                | <b>89</b>    | <b>2.5</b>   | <b>150</b>   | <b>3.8</b>   | <b>37</b>    | <b>0.9</b>   |
| <b>Others</b>               | <b>69</b>    | <b>1.9</b>   | <b>68</b>    | <b>1.7</b>   | <b>105</b>   | <b>2.4</b>   |
| <b>Total</b>                | <b>3,597</b> | <b>100.0</b> | <b>3,987</b> | <b>100.0</b> | <b>4,287</b> | <b>100.0</b> |

**CAPITAL AND R&D EXPENDITURES BY BUSINESS AREA - 2Q13**

|                             | Projects     |              | R&D          |              | Stay-in-business |              | Total        |              |
|-----------------------------|--------------|--------------|--------------|--------------|------------------|--------------|--------------|--------------|
|                             | US\$ million | %            | US\$ million | %            | US\$ million     | %            | US\$ million | %            |
| <b>Bulk materials</b>       | <b>1,462</b> | <b>62.5</b>  | <b>68</b>    | <b>43.8</b>  | <b>558</b>       | <b>50.6</b>  | <b>2,088</b> | <b>58.0</b>  |
| Ferrous minerals            | 1,195        | 51.1         | 59           | 37.9         | 525              | 47.6         | 1,779        | 49.4         |
| Coal                        | 267          | 11.4         | 9            | 5.9          | 33               | 3.0          | 309          | 8.6          |
| <b>Base metals</b>          | <b>451</b>   | <b>19.3</b>  | <b>48</b>    | <b>31.2</b>  | <b>331</b>       | <b>30.0</b>  | <b>830</b>   | <b>23.1</b>  |
| <b>Fertilizer nutrients</b> | <b>238</b>   | <b>10.2</b>  | <b>16</b>    | <b>10.6</b>  | <b>83</b>        | <b>7.5</b>   | <b>337</b>   | <b>9.4</b>   |
| <b>Logistics services</b>   | <b>54</b>    | <b>2.3</b>   | <b>3</b>     | <b>1.8</b>   | <b>71</b>        | <b>6.4</b>   | <b>128</b>   | <b>3.6</b>   |
| <b>Power generation</b>     | <b>45</b>    | <b>1.9</b>   | <b>8</b>     | <b>5.5</b>   | <b>1</b>         | <b>0.1</b>   | <b>55</b>    | <b>1.5</b>   |
| <b>Steel</b>                | <b>89</b>    | <b>3.8</b>   |              | <b>0.3</b>   |                  |              | <b>89</b>    | <b>2.5</b>   |
| <b>Others</b>               |              |              | <b>11</b>    | <b>6.8</b>   | <b>59</b>        | <b>5.3</b>   | <b>69</b>    | <b>1.9</b>   |
| <b>Total</b>                | <b>2,340</b> | <b>100.0</b> | <b>155</b>   | <b>100.0</b> | <b>1,102</b>     | <b>100.0</b> | <b>3,597</b> | <b>100.0</b> |

- Main approved projects under construction**

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



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| Project  | Estimated start-up | Executed capex US\$ million |       | Expected capex US\$ million |        | Status(1)   |
|--|--------------------|-----------------------------|-------|-----------------------------|--------|---|
|  |                    | 2013                        | Total | 2013                        | Total  |   |
| <b>IRON ORE MINING AND LOGISTICS</b>   |                    |                             |       |                             |        |   |
| <b>Carajás Additional 40 Mtpy</b>  | 2H13               | 351                         | 2,824 | 548                         | 3,475  | Plant commissioning with ore is in progress. Issuance of operation license expected for 2H13. 95% of physical progress.   |
| Construction of an iron ore dry processing plant, located in Carajás, Pará, Brazil.  |                    |                             |       |                             |        |   |
| Estimated nominal capacity of 40 Mtpy.   |                    |                             |       |                             |        |   |
| <b>CLN 150 Mtpy</b>  | 1H13 to 2H13       | 365                         | 3,625 | 498                         | 3,931  | The railway part of the project is concluded, encompassing 63 km of rail duplication, and offshore and onshore port facilities. Operating license for the port, onshore and offshore, issued. |
| Increase Northern system railway and port capacity, including the construction of a fourth pier at the Ponta da Madeira maritime terminal, located in Maranhão, Brazil with 60 Mtpy of capacity. |                    |                             |       |                             |        |   |
| 98% of physical progress.  |                    |                             |       |                             |        |   |
| Increase EFC's estimated nominal logistics capacity to approximately 130 Mtpy.   |                    |                             |       |                             |        |   |
| <b>Carajás Serra Sul \$11D</b>   | 2H16               | 368                         | 2,182 | 658                         | 8,089  | High-voltage substation and transmission lines are in final stages of construction. Initiated off-site electromechanical assembly of modules.   |
| Development of a mine and processing plant, located in the Southern range of Carajás, Pará, Brazil.  |                    |                             |       |                             |        |   |
| Installation license issued.   |                    |                             |       |                             |        |   |
| Estimated nominal capacity of 90 Mtpy.   |                    |                             |       |                             |        |   |
| 45% of physical progress.  |                    |                             |       |                             |        |   |
| <b>CLN \$11D</b>   | 1H15 to 2H18       | 220                         | 680   | 633                         | 11,582 | Civil engineering concluded for rail spur and port. Earthworks initiated for railway duplication.   |



Increase logistic capacity of Northern system to support \$11 D, including the duplication of approximately 570 km of railway, construction of a rail spur with 101 km, acquisition of wagons and locomotives and onshore and offshore expansions at Ponta da Madeira maritime terminal.

Installation license issued.

8% of physical progress.

Increase EFC s estimated nominal logistics capacity to approximately 230 Mtpy.

**Conceição Itabiritos**

2H13

146

927

208

1,174

Electromechanical assembly in final stage.

Construction of a concentration plant, in the Southeastern System, Minas Gerais, Brazil.

Commissioning of the plant.

Estimated additional nominal capacity of 12 Mtpy. 100% pellet feed, with 67.7% Fe content and 0.8% silica.

Operating license for the plant expected for 2H13.

97% of physical progress.

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| Project  | Estimated start-up | Executed capex US\$ million |       | Expected capex US\$ million |       | Status(1)  |
|--|--------------------|-----------------------------|-------|-----------------------------|-------|--|
|  |                    | 2013                        | Total | 2013                        | Total |  |
| <b>Vargem Grande Itabiritos</b>  | 2H14               | 152                         | 1,068 | 518                         | 1,910 | Installation of steel structures for the screening building in progress.   |
| Construction of new iron ore processing plant, in the Southern System, Minas Gerais, Brazil.   |                    |                             |       |                             |       | Operating license expected for 1H14.   |
| Estimated additional nominal capacity of 10 Mtpy. 100% pellet feed, with 67.8% Fe content and 1.2% silica.   |                    |                             |       |                             |       | 79% of physical progress.  |
| <b>Conceição Itabiritos II</b>   | 2H14               | 89                          | 513   | 197                         | 1,189 | Ongoing civil engineering and steel structure assembly. Assembly of the crushing area substation concluded.  |
| Adaptation of the plant to process low-grade itabirites from Conceição, located in the Southeastern System, Minas Gerais, Brazil.  |                    |                             |       |                             |       | Installation licenses issued.  |
| Estimated nominal capacity of 19 Mtpy, without additional capacity. 31.6% sinter feed, with 66.5% Fe content and 3.8% of silica, and 68.4% pellet feed, with 68.8% Fe content and 0.9% silica. |                    |                             |       |                             |       | 67% of physical progress.  |
| <b>Serra Leste</b>   | 2H14               | 73                          | 365   | 166                         | 478   | Ongoing construction of the transmission lines and rail loop. Assembly of the main substation and the iron ore treatment facility are in progress. Installation licenses issued. |
| Construction of new processing plant, located in Carajás, Pará, Brazil.  |                    |                             |       |                             |       | 67% of physical progress.  |
| Estimated nominal capacity of 6 Mtpy.  |                    |                             |       |                             |       |  |
| <b>Cauê Itabiritos</b>   | 2H15               | 81                          | 200   | 206                         | 1,504 | Ongoing civil works. Main electromechanical equipment acquired.  |

|  |             |            |            |            |              |   |
|--|-------------|------------|------------|------------|--------------|---|
| <p>Adaptation of the plant to process low-grade itabirites from Minas do Meio, located in the Southeastern System, Minas Gerais, Brazil.</p>   |             |            |            |            |              | <p>Preliminary and installation licenses for new primary crusher expected for 1H14.</p>   |
| <p>Estimated nominal capacity of 24 Mtpy, with net additional capacity of 4 Mtpy in 2017. 29% sinter feed, with 65.3% Fe content and 4.4% of silica, and 71% pellet feed, with 67.8% Fe content and 2.8% silica.</p> |             |            |            |            |              | <p>28% of physical progress.</p>  |
| <p><b>Teluk Rubiah</b><br/><br/>Construction of a maritime terminal for the 400,000 dwt vessels and a stockyard. Located in Teluk Rubiah, Malaysia.</p>  | <p>2H14</p> | <p>236</p> | <p>750</p> | <p>443</p> | <p>1,371</p> | <p>Ongoing assembly of the yard machines on site. Earthworks and civil works of the unloading terminal are in final stage of completion.</p>  |
| <p>Stockyard capable of handling up to 30 Mtpy of iron ore products.</p>   |             |            |            |            |              | <p>Import berth to be concluded until December 2013. Conclusion of the export berth postponed to 2H14 to modify the berth to accommodate larger vessels to reduce freight costs.<br/><br/>79% of physical progress.</p> |

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| Project   | Estimated start-up | Executed capex US\$ million |       | Expected capex US\$ million |       | Status(1)  |
|---|--------------------|-----------------------------|-------|-----------------------------|-------|--|
|   |                    | 2013                        | Total | 2013                        | Total |  |
| <b>PELLET PLANTS</b>  |                    |                             |       |                             |       |  |
| <b>Tubarão VIII</b>   | 2H13               | 87                          | 976   | 158                         | 1,088 | Commissioning of the equipment in progress.  |
| Eighth pellet plant at our existing site at the Tubarão Port, Espírito Santo, Brazil.   |                    |                             |       |                             |       | Issuance of operating license expected for 2H13.   |
| Estimated nominal capacity of 7.5 Mtpy.   |                    |                             |       |                             |       | 95% of physical progress.  |
| <b>Samarco IV(2)</b>  | 1H14               |                             |       |                             | 1,693 | Electromechanical assembly of equipment in progress. Slurry pipeline and electromechanical assembly of the substation concluded. Started commissioning activities. |
| Construction of Samarco's fourth pellet plant, and expansion of mine, pipeline and maritime terminal infrastructure. Vale has a 50% stake in Samarco. |                    |                             |       |                             |       | 90% of physical progress of the pellet plant.  |
| Estimated nominal capacity of 8.3 Mtpy, increasing Samarco's capacity to 30.5 Mtpy.   |                    |                             |       |                             |       | Budget fully sourced by Samarco.   |
| <b>COAL MINING AND LOGISTICS</b>  |                    |                             |       |                             |       |  |
| <b>Moatize II</b>   | 2H15               | 144                         | 600   | 344                         | 2,068 | Ongoing earthworks and civil engineering work in the stockyards. Handling and processing equipment were delivered.   |
| New pit and duplication of the Moatize CHPP, as well as all related infrastructure, located in Tete, Mozambique.                                      |                    |                             |       |                             |       | 39% of physical progress.  |
| Nominal capacity of 11 Mtpy (mostly comprised of coking coal).  |                    |                             |       |                             |       |  |
| <b>Nacala corridor</b>  | 2H14               | 292                         | 701   | 1,079                       | 4,444 | Ongoing earthworks, drainage and civil works for the railway section in Malawi.  |
| Railway and port infrastructure connecting Moatize site to the Nacala-à-Velha maritime terminal, located in Nacala, Mozambique.                       |                    |                             |       |                             |       | Pile driving for the jetty and earthworks for the stockyard in progress.   |

Estimated nominal capacity of 18 Mtpy.

22% and 23% of physical progress in railway and port respectively.

**COPPER MINING**

|   |      |     |     |     |       |   |
|---|------|-----|-----|-----|-------|---|
| <b>Salobo II</b>  | 1H14 | 114 | 874 | 401 | 1,707 | Civil works and electromechanical assembly of equipment in the crushing, milling and flotation sections are in progress. Main electromechanical equipment acquired. |
| Salobo expansion, raising height of tailing dam and increase in mine capacity, located in Marabá, Pará, Brazil. |      |     |     |     |       |   |
| Additional estimated nominal capacity of 100,000 tpy of copper in concentrate.                                  |      |     |     |     |       | Issuance of plant operating license expected for 1H14.  |
|   |      |     |     |     |       | 80% of physical progress.   |

**NICKEL MINING AND REFINING**

|  |      |     |       |       |       |   |
|--|------|-----|-------|-------|-------|---|
| <b>Long Harbour</b>  | 2H13 | 754 | 3,910 | 1,094 | 4,250 | Final stage of electromechanical assembly and commissioning of the plant. |
| Hydrometallurgical facility. Located In Long Harbour, Newfoundland and Labrador, |      |     |       |       |       | 94% of physical progress.   |

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| Project   | Estimated start-up | Executed capex US\$ million |       | Expected capex US\$ million |       | Status(1)  |
|---|--------------------|-----------------------------|-------|-----------------------------|-------|--|
|   |                    | 2013                        | Total | 2013                        | Total |  |
| Canada.   |                    |                             |       |                             |       |  |
| Estimated nominal capacity for refining 50,000 tpy of finished nickel, and associated copper and cobalt, without additional capacity.   |                    |                             |       |                             |       |  |
| <b>Totten</b>   | 2H13               | 86                          | 626   | 171                         | 759   | The first ore production area is ready for extraction. Underground tunnel almost finalized.  |
| Nickel mine (re-opening) in Sudbury, Ontario, Canada. Estimated nominal capacity of 8,200 tpy.  |                    |                             |       |                             |       |  |
| 90% of physical progress.   |                    |                             |       |                             |       |  |
| <b>ENERGY</b>   |                    |                             |       |                             |       |  |
| <b>Biodiesel</b>  | 2H15               | 66                          | 493   | 75                          | 633   | Second palm oil plant under development. Construction of the biodiesel plant is in progress. |
| Project to produce biodiesel from palm oil. Plantation of 80,000 ha of palm trees. Located in Pará, Brazil.   |                    |                             |       |                             |       |  |
| Installation license for the biodiesel plant expected for 1H14.   |                    |                             |       |                             |       |  |
| Estimated nominal capacity of 360,000 tpy of biodiesel.   |                    |                             |       |                             |       |  |
| <b>STEELMAKING</b>  |                    |                             |       |                             |       |  |
| <b>CSP2</b>   | 2H15               | 235                         | 811   | 439                         | 2,648 | Ongoing pile driving for the plant foundations.  |
| Development of a steel slab plant in partnership with Dongkuk and Posco, located in Ceará, Brazil. Vale holds 50% of the joint venture. Estimated nominal capacity of 3.0 Mtpy. |                    |                             |       |                             |       |  |
| 29% of physical progress.   |                    |                             |       |                             |       |  |

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(1) as of June 2013.

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

DEBT INDICATORS

Total debt was US\$ 29.863 billion as of June 30, 2013, a decrease of US\$ 328 million from US\$ 30.191 billion as of March 31, 2013.

As of June 30, 2013, our cash position<sup>(12)</sup> was US\$ 6.255 billion and net debt was US\$ 23.608 billion. The cash position was strengthened by improvements in working capital which already delivered significant results in this quarter, especially measures to increase efficiency through the revision of processes and counterparties to shorten the number of days of sales outstanding (DSO). The number of days of receivables was reduced to 40.1 in 2Q13 against 50.6 in 1Q13. This has contributed to unlock US\$ 1.3 billion when compared to March 2013. Inventories also fell by US\$ 378 million in 2Q13 versus 1Q13.

On July, 2013, we entered into a contract for a five-year revolving credit line facility of US\$ 2 billion arranged by a bank syndicate comprised of 16 global commercial banks. With this facility the total amount of revolving credit lines is US\$ 5 billion, as we already have an existing US\$ 3 billion line, which will mature in 2016. The revolving credit lines work as a short term liquidity buffer that enhances our liquidity and allows more efficient cash management, consistent with Vale's strategic focus on cost of capital reduction.

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(12) Cash holdings include cash and cash equivalents, as well as short-term investments of US\$ 368 million as of June 30, 2013.

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Debt leverage, as measured by total debt/LTM adjusted EBITDA(d) ratio excluding non-recurring charges, remained stable at 1.6x while total debt/enterprise value(e) was 32.4% as of June 30, 2013.

The average debt maturity of 9.9 years as of June 30, 2013 was in line with our goal to maintain long debt maturity to minimize refinancing risks. The average cost of debt fell to 4.54% per annum, declining five basis points against the cost on March 31, 2013.

Interest coverage, measured by the LTM adjusted EBITDA excluding non-recurring charges/LTM interest payment ratio(f), was 13.2x compared to 13.7x on March 31, 2013.

Considering hedge positions, our total debt on June 30, 2013 was composed of 26% of floating interest rates and 74% fixed interest rates linked debt, while 98% was denominated in US dollars and the remainder in other currencies.

**Table 9 - DEBT INDICATORS**

| US\$ million                                       | 2Q13   | 1Q13   | 2Q12   |
|--|--------|--------|--------|
| Total debt   | 29,863 | 30,191 | 25,518 |
| Net debt   | 23,608 | 23,582 | 21,436 |
| Total debt / adjusted LTM EBITDA(1) (x)            | 1.6    | 1.6    | 0.9    |
| Adjusted LTM EBITDA(1) / LTM interest expenses (x) | 13.2   | 13.7   | 24.8   |
| Total debt / EV (%)                                | 32.4   | 26.2   | 20.1   |

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(1) Excluding non-recurring effects

PERFORMANCE OF THE BUSINESS SEGMENTS

**Bulk materials**

*Ferrous minerals*

Vale produced 73.2 Mt of iron ore in 2Q13. Excluding the attributable production of Samarco, iron ore output reached 70.6 Mt, which was 8.8% higher than in 1Q13. Considering the first half of the year, production was 2.7 Mt short of the 138.1 Mt budgeted for the period. That target recognized the rainfall distribution across the year and the evolution of mining plans in Carajás, while taking into account the fact that the permits to open the N4WS mine and other pits have not yet been granted. However, the operational performance was affected by the extension



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of the rainy season through May in the North of Brazil and the lack of flexibility of deeper pits under rainy conditions.

With the dry season already under way, operating performance in Carajás is improving and we are still aiming to produce the budgeted volume for 2013. Iron ore production in July was 27.9 Mt against 27.6 Mt in July 2012, driven by the high performance from Carajás, where monthly output rose to 10.4 Mt from 9.5 Mt in the same month of last year.

At the same time, we are actively taking steps to avoid the production loss being translated into a decrease in shipments relative to our plans for the year. Despite the operational performance, 1H13 iron ore and pellets sales volumes of 137.1 Mt matched our budget. Shipments budgeted for 2H13 remain at 167.8 Mt.

In 2Q13, sales of iron ore and pellets were 72.123 Mt, 10.8% higher than the 65.104 Mt in 1Q13. Iron ore sales were 61.921 Mt, 11.2% higher than the previous quarter, while pellets totaled 10.203 Mt, increasing 8.3% quarter over quarter. Iron ore and pellets sales on a CFR basis reached 27.5 Mt in 2Q13, representing 38.2% of total shipments, versus 28.1 Mt in 1Q13.

Revenues from iron ore and pellets amounted to US\$ 7.641 billion – US\$ 6.143 billion originating from iron ore and US\$ 1.498 billion from pellets – versus US\$ 7.677 billion in 1Q13. The effect of stronger sales volumes, US\$ 864 million, counteracted almost entirely the influence of the price decrease of US\$ 900 million.

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Our iron ore sales in 2Q13 were priced through three basic systems: (i) 34% based on the spot price after delivery, involving provisional pricing and an adjustment invoice following delivery; (ii) 47% based on the current quarter, monthly and daily spot prices; (iii) 19% linked to a three-month average with a one-month lag (VRP).

Average realized price was US\$ 99.21 against US\$ 111.69 in 1Q13 as a result of the drop of US\$ 22.45 per metric ton in the average Platt's IODEX 62%. The price fall was softened mainly by higher VRP prices, whereby contracts are priced in 2Q13 with reference to the three-month average IODEX 62% for last Dec-Feb of US\$ 145.30, against US\$ 113.00 in 1Q13 (average for Sep-Nov of 2012). Other factors, such as lower humidity, provisional prices, carry-over effects, quality and higher FOB sales, had a smaller impact and basically offset each other.(13)

The average sales price of pellets was US\$ 146.83 per metric ton, US\$ 7.84 lower than the US\$ 154.67 per metric ton of the previous quarter. Similarly to iron ore, the price variation for pellets was smoothed out mainly by the effects of VRP pricing.

Iron ore operating costs remained under control at a low level. Iron ore cash cost (mine, plant, railroad and port) after royalties in 2Q13 was estimated at US\$ 24 per metric ton(14), in line with 1Q13. Excluding the products acquired from third parties, cash cost per metric ton was close to US\$ 23.

In absolute terms, the costs for iron ore, net of depreciation charges, were US\$ 2.113 billion. After adjusting for the effects of higher volumes (US\$ 137 million) and currency prices (-US\$ 44 million), COGS were up US\$ 58 million against 1Q13. Pre-operating expenses for iron ore were US\$ 76 million, reflecting new projects that are coming on stream in the near future, such as: S11 D, Conceição Itabirito, Additional 40 Mtpy and CLN 150.

China's share in the sales of iron ore and pellets was 43.8%, against 48.2% in 1Q13. Japan's share increased to 12.6%, after the one-off carry-over of some 1Q13 volumes reduced Japan's share in the first quarter to 7.2%. The share of sales to Brazil fell slightly, to 11.2% from 13.2% in 1Q13, while Europe increased to 19.1% from 18.8% from the previous quarter.

Expectations of a strong rebound of the Chinese economy early this year led to a change in the steel cycle in China. As those expectations were frustrated by the actual performance of China's economy, steel stocks accumulation in the first quarter reached above normal seasonal patterns entailing a larger consumption of these inventories in the second quarter and a downward pressure on iron ore prices. As iron ore stocks at the ports and mills were already at low levels when compared to the past, prices did not drop below US\$ 110 per metric ton, thus exhibiting different behavior from last year's downcycle, when they reached a low of US\$ 88.

Moving forward, the combination of very low iron ore inventories, the need for steel mills to restock in advance of the winter season, signals of a recovery in housing starts and the recent launching by the Chinese government of a slum renovation program(15) is very likely to offset the effect of the entry of the new Australian supply in 2H13, contributing to maintain prices hovering around the current level, which is very profitable for a low-cost producer such as Vale.

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The demand for blast furnace pellets increased in Europe, while demand for direct reduction (DR) pellets continued steady in the Middle East, North Africa and North America.

In 2Q13, manganese output showed good operational figures at 617,000 t against 501,000 in 1Q13 and 584,000 t in 2Q12. Sales volumes were 310,000 t vis-à-vis 417,000 t in 1Q13 due to inventory-building close to clients during the quarter. Revenues of manganese ore were US\$ 52 million in 2Q13, down from US\$ 64 million in the first quarter, mainly due to lower sales volumes of US\$ 16 million. Higher sales prices contributed US\$ 4 million to revenues.

In 2Q13, ferroalloy production was 41,700 t, 26.3% higher than 1Q13 due to the recovery after a maintenance stoppage. Shipments of ferroalloys totaled 43,000 t, compared to 48,000 t in 1Q13. Revenues from ferroalloys were US\$ 56 million, 15.2% lower than the US\$ 66 million in the previous quarter.

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(13) Given the use of several pricing formulas, the relationship of our realized prices to iron ore price indices is non-linear and tends to vary over time. Thus, comparisons to average price indices in the short term have a high potential for misleading investors.

(14) As per segment reporting notes to the financial statements: US\$ 2.113 billion in costs net of depreciation and amortization, less US\$ 618 million in iron ore freight, over iron ore sales of 61.9 Mt.

(15) Estimated to represent about 25% of housing starts in 1H13 in terms of floor space.

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Sales of ferrous minerals products – iron ore, pellets, manganese and ferroalloys – produced total revenues of US\$ 7.749 billion, in line with the US\$ 7.807 billion in 1Q13.

The adjusted EBIT margin for the ferrous minerals business was 52.8% against 56.4% in 1Q13, which was primarily determined by the lower prices for iron ore and pellets, but partially offset by the increase in sales volumes.

Adjusted EBITDA for ferrous minerals was US\$ 4.699 billion, in line with the US\$ 4.701 billion in 1Q13. The negative impact of lower sales prices (US\$ 853 million) and higher costs and expenses (US\$ 10 million) was almost completely offset by the positive effects of higher volumes sold (US\$ 581 million), higher dividends received from non-consolidated affiliated companies (US\$ 217 million) and the positive impacts of exchange rate variations (US\$ 63 million).

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

| 000 metric tons                    | 2Q13          | %            | 1Q13          | %            | 2Q12          | %            |
|------------------------------------|---------------|--------------|---------------|--------------|---------------|--------------|
| <b>Americas</b>                    | <b>9,611</b>  | <b>13.3</b>  | <b>9,797</b>  | <b>15.0</b>  | <b>11,060</b> | <b>14.7</b>  |
| Brazil                             | 8,098         | 11.2         | 8,575         | 13.2         | 9,151         | 12.2         |
| Steel mills and pig iron producers | 8,098         | 11.2         | 8,575         | 13.2         | 7,953         | 10.6         |
| JVs pellets                        |               |              |               |              | 1,198         | 1.6          |
| USA                                |               |              |               |              | 486           | 0.6          |
| Others                             | 1,513         | 2.1          | 1,222         | 1.9          | 1,423         | 1.9          |
| <b>Asia</b>                        | <b>45,966</b> | <b>63.7</b>  | <b>41,130</b> | <b>63.2</b>  | <b>47,181</b> | <b>62.7</b>  |
| China                              | 31,567        | 43.8         | 31,405        | 48.2         | 32,896        | 43.7         |
| Japan                              | 9,082         | 12.6         | 4,719         | 7.2          | 7,180         | 9.5          |
| South Korea                        | 3,699         | 5.1          | 3,287         | 5.0          | 4,772         | 6.3          |
| Others                             | 1,618         | 2.2          | 1,718         | 2.6          | 2,333         | 3.1          |
| <b>Europe</b>                      | <b>13,773</b> | <b>19.1</b>  | <b>12,220</b> | <b>18.8</b>  | <b>14,742</b> | <b>19.6</b>  |
| Germany                            | 5,577         | 7.7          | 4,260         | 6.5          | 5,839         | 7.8          |
| United Kingdom                     | 1,246         | 1.7          | 345           | 0.5          | 530           | 0.7          |
| France                             | 1,632         | 2.3          | 2,494         | 3.8          | 1,199         | 1.6          |
| Italy                              | 2,370         | 3.3          | 1,989         | 3.1          | 3,451         | 4.6          |
| Turkey                             | 486           | 0.7          | 508           | 0.8          | 1,025         | 1.4          |
| Spain                              | 648           | 0.9          | 616           | 0.9          | 847           | 1.1          |
| Netherlands                        | 663           | 0.9          | 597           | 0.9          | 447           | 0.6          |
| Others                             | 1,151         | 1.6          | 1,413         | 2.2          | 1,404         | 1.9          |
| <b>Middle East</b>                 | <b>1,955</b>  | <b>2.7</b>   | <b>1,423</b>  | <b>2.2</b>   | <b>1,563</b>  | <b>2.1</b>   |
| <b>Rest of the World</b>           | <b>818</b>    | <b>1.1</b>   | <b>534</b>    | <b>0.8</b>   | <b>709</b>    | <b>0.9</b>   |
| <b>Total</b>                       | <b>72,123</b> | <b>100.0</b> | <b>65,104</b> | <b>100.0</b> | <b>75,255</b> | <b>100.0</b> |

**OPERATING REVENUE BY PRODUCT**

| US\$ million                    | 2Q13  | 1Q13  | 2Q12  |
|---------------------------------|-------|-------|-------|
| Iron ore                        | 6,143 | 6,219 | 7,081 |
| Pellet plant operation services |       |       | 9     |

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|               |              |              |              |
|---------------|--------------|--------------|--------------|
| Pellets       | 1,498        | 1,458        | 1,952        |
| Manganese ore | 52           | 64           | 63           |
| Ferroalloys   | 56           | 66           | 129          |
| Others        | 28           | 24           |              |
| <b>Total</b>  | <b>7,777</b> | <b>7,831</b> | <b>9,234</b> |

**AVERAGE SALE PRICE**

| US\$/ metric ton | 2Q13     | 1Q13     | 2Q12     |
|------------------|----------|----------|----------|
| Iron ore         | 99.21    | 111.69   | 112.44   |
| Pellets          | 146.83   | 154.67   | 159.00   |
| Manganese ore    | 167.74   | 153.10   | 123.53   |
| Ferroalloys      | 1,302.33 | 1,383.69 | 1,303.03 |

Table of Contents**VOLUME SOLD**

| <b>000 metric tons</b> | <b>2Q13</b> | <b>1Q13</b> | <b>2Q12</b> |
|------------------------|-------------|-------------|-------------|
| Iron ore               | 61,921      | 55,679      | 62,978      |
| Pellets                | 10,203      | 9,425       | 12,277      |
| Manganese ore          | 310         | 417         | 510         |
| Ferroalloys            | 43          | 48          | 99          |

**Coal**

Production of coal in 2Q13 reached a new historic record at 2.4 Mt, from 1.8 Mt in 1Q13, mostly influenced by the ramp-up of Moatize and the performance of Carborough Downs. The ramp-up of Moatize I, in Mozambique, is progressing well with a production of 1.3 Mt in 2Q13. However, the value creation potential of Moatize will continue to be constrained by the rail and port capacity of the existing logistics infrastructure (the Linha do Sena railway and the Beira port) until the Nacala corridor starts operations, which is expected for 2H14. In Australia, our Carborough Downs 100% metallurgical coal underground mining operation reached a record volume of 670,000 t, continuing its high performance after the longwall move in January and more than compensating for issues at Integra.

Coal shipments totaled 1.856 Mt in 2Q13, increasing 23.2% from 1.507 Mt in the previous quarter. Metallurgical coal shipments reached another record figure of 1.720 Mt as a result of the reasons previously mentioned. Thermal coal volumes reached 136,000 t from 60,000 t in 1Q13.

Sales of coal products generated revenues of US\$ 254 million, 20.3% higher than the US\$ 211 million in 1Q13, mainly due to higher sales volumes of both metallurgical and thermal coal.

Revenues from metallurgical coal sales were 16.5% up compared to the previous quarter, reaching US\$ 240 million in 2Q13 against US\$ 206 million in 1Q13. The increase was mainly due to the higher sales volumes, partially offset by a slightly lower average realized price of US\$ 139.62 per metric ton, versus US\$ 142.09 in 1Q13. Thermal coal revenues were US\$ 14 million, up 133.3% against the previous quarter, at US\$ 6 million, because of improved sales volumes.

Both thermal and met coal prices dropped significantly when compared with levels prevailing last year, which can be explained by oversupply.

In the case of met coal, the focus of our operations, prices are oscillating at levels around 35% lower than last year. Oversupply is primarily caused by existing capacity that returned to the seaborne market and not new supply: the normalization of Australian exports after the Queensland floods of 2011 and the surge in US exports, a by-product of the shale gas revolution. The high-cost US exports arose to take advantage of the high prices caused by the Queensland floods but now they are a major cause of the excess supply.

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Chinese demand is growing strongly but the rest of the world is stagnant. Thus, the reliance on one market, despite its magnitude, is leading to the downward pressure on prices. As a consequence, in the short-term, price recovery requires the shutdown of high cost operations.

In 2Q13, coal costs were US\$ 257 million, net of depreciation charges, with US\$ 49 million of savings when compared to 1Q13, after excluding effects of higher volumes (US\$ 55 million) and exchange rates (- US\$ 10 million). Coal expenses were US\$ 57 million in 2Q13 decreasing from US\$ 155 million in the previous quarter.

Adjusted EBITDA for the coal business was minus US\$ 69 million in 2Q13 against minus US\$ 216 million in the previous quarter.

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

| US\$ million       | 2Q13       | 1Q13       | 2Q12       |
|--------------------|------------|------------|------------|
| Thermal coal       | 14         | 6          | 79         |
| Metallurgical coal | 240        | 206        | 197        |
| <b>Total</b>       | <b>254</b> | <b>211</b> | <b>276</b> |

Table of Contents**AVERAGE SALE PRICE**

| US\$/ metric ton   | 2Q13   | 1Q13   | 2Q12   |
|--------------------|--------|--------|--------|
| Thermal coal       | 103.49 | 94.30  | 70.97  |
| Metallurgical coal | 139.62 | 142.09 | 171.13 |

**VOLUME SOLD**

| 000 metric tons    | 2Q13  | 1Q13  | 2Q12  |
|--------------------|-------|-------|-------|
| Thermal coal       | 136   | 60    | 1,107 |
| Metallurgical coal | 1,720 | 1,447 | 1,152 |

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

| US\$ million                                  | 2Q13           | 1Q13           | 2Q12           |
|---|----------------|----------------|----------------|
| <b>Costs(1)</b>                               | <b>(3,058)</b> | <b>(2,808)</b> | <b>(3,436)</b> |
| Ferrous minerals                              | (2,801)        | (2,547)        | (3,162)        |
| Coal  | (257)          | (261)          | (274)          |
| <b>Expenses(1)</b>                            | <b>(336)</b>   | <b>(505)</b>   | <b>(468)</b>   |
| Ferrous minerals                              | (279)          | (350)          | (365)          |
| Coal  | (57)           | (155)          | (103)          |
| <b>Pre-operating and stoppage expenses(1)</b> | <b>(119)</b>   | <b>(97)</b>    | <b>(54)</b>    |
| Ferrous minerals                              | (110)          | (86)           | (48)           |
| Coal  | (9)            | (11)           | (6)            |
| <b>Adjusted EBIT margin(2) (%)</b>            |                |                |                |
| Ferrous minerals                              | 52.8           | 56.4           | 56.0           |
| Coal  | (46.1)         | (122.3)        | (53.6)         |
| <b>Adjusted EBIT(2)</b>                       | <b>3,930</b>   | <b>4,072</b>   | <b>4,955</b>   |
| Ferrous minerals                              | 4,047          | 4,330          | 5,103          |
| Coal  | (117)          | (258)          | (148)          |
| <b>Adjusted EBITDA(2)</b>                     | <b>4,630</b>   | <b>4,485</b>   | <b>5,490</b>   |
| Ferrous minerals                              | 4,699          | 4,701          | 5,597          |
| Coal  | (69)           | (216)          | (107)          |

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(1) Net of depreciation and amortization

(2) Excluding non-recurring items

**Base metals**



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Nickel had its best second quarter production since 2Q08. Total finished nickel production in 2Q13 was 65,000 t, in line with 1Q13 and 7.0% above 2Q12. The ramp-up of VNC and the performance of Sorowako more than offset the effect of the slight output decreases at Voisey's Bay and Thompson.

In terms of finished production, VNC reached an all-time high figure of 6,600 t of nickel in 2Q13, including output from our Asian refineries, primarily at Dalian, in China. However, the performance of VNC output was weaker than in 1Q13 - 3,400 t of nickel contained in NHC and NiO in 2Q13 versus 5,100 t due to the anticipated maintenance stoppage of the acid plant, originally intended for August 2013. VNC ramp-up resumed in June as planned, operating with two of the three autoclaves simultaneously and reliably.

Nickel sales volumes increased to 65,000 t from 63,000 t in 1Q13, while average sales prices fell 12.1% to US\$ 15,123 per metric ton in 2Q13 from US\$ 17,206 per metric ton in the previous quarter. Revenues were US\$ 983 million, 9.3% inferior to US\$ 1.084 billion in 1Q13. Even though there was an improvement in sales volumes (US\$ 34 million), the negative impact of lower sales prices (US\$ 135 million) led to lower revenues.

Nickel prices have been trending downward since 2Q11, primarily as a consequence of oversupply, which led to the accumulation of more than 100,000 metric tons of inventories at the LME warehouses in the last 18 months. Reported stocks are estimated to represent about nine weeks of consumption.

At current prices, which similarly to other commodities were also negatively affected by the expectations regarding US monetary policy, a significant part of the global industry capacity is cash negative, a situation requiring large

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shutdowns. No significant production cuts among high-cost producers have taken place outside China. While high-cost Chinese nickel in pig iron (NPI) producers have been cutting output, this is being partly offset by the entry of new lower cost rotary kiln electric furnace (RKEF) producers.

The shift to RKEF production is causing a structural downward move of the cost curve of NPI, thus reducing support for nickel prices.

Global nickel demand has increased rapidly in the first half of this year, at a pace close to 6%, mainly due to booming Chinese stainless steel production, given that with the exception of Southeast Asia other regions of the world are showing a contraction in nickel use.

In addition to high-cost mine production cutbacks, a rebound in demand from developed economies is another potential lever for the recovery of nickel prices. At the moment, only in Japan are we seeing the first signals of an improvement in demand. We expect economic growth of advanced nations to gain more traction in the last quarter of the year, producing a positive impact on global nickel demand.

The production of copper reached an all-time high, at 91,300 metric tons in 2Q13. This was supported mainly by the ramp-up of Salobo I, which produced 15,300 t of copper in concentrates - approximately 60% of its nominal capacity - and 25,000 troy ounces (oz) of gold as a by-product in the second quarter.

Shipment volumes improved to 77,000 t from 72,000 t in 1Q13, being the highest level for a second quarter in Vale's history. Copper revenues were US\$ 472 million, showing a decrease of 8.2% from 1Q13, since the negative impact of lower average sales prices (US\$ 77 million) was only partly mitigated by the increase in volumes (US\$ 35 million). The average realized price of US\$ 6,141 per metric ton was 13.6% lower than the US\$ 7,105 per metric ton in 1Q13.

Copper fundamentals remain relatively tight compared with the other base metals. However, the increase in mine output, despite the disruptions in some important operations, and negative expectations about the global macroeconomy, caused copper prices to fall below US\$ 7,000 per metric ton. Global demand concerns along with the ongoing ramp-up at new mines had turned market attention to the long-awaited period of medium-term copper market surplus, putting downward pressure on copper prices.

Platinum output was 33,000 oz and palladium was 81,000 oz, 4.2% and 9.2% below 1Q13, respectively. PGMs (platinum group metals) sales volumes decreased to 115,000 troy ounces (oz) from 125,000 oz in the previous quarter. Revenues totaled US\$ 105 million versus US\$ 125 million in 1Q13, as a consequence of both lower prices and lower volumes.

Gold production achieved all-time high figure of 63,000 oz in 2Q13, 9.0% higher than 1Q13, mainly due to the increase in gold output as a by-product of our copper operations at Salobo. Sales volumes showed significant improvement reaching 70,000 oz from 47,000 oz in 1Q13. Revenues from gold sales recovered to US\$ 96 million from US\$ 77 million in 1Q13, with the positive contribution from higher sales volumes (US\$ 38 million), partly offset by lower realized prices (US\$ 19 million).

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In 2Q13, revenues from base metals and their by-products were US\$ 1.699 billion, 7.8% lower than the previous quarter. The reason for the decrease was lower prices (US\$ 244 million), while shipment volumes were higher in the quarter (US\$ 101 million).

Base metals costs excluding depreciation and amortization - were US\$ 1.126 billion this quarter. After adjusting for the effects of higher volumes (US\$ 67 million) and currency prices (-US\$ 14 million), costs were up US\$ 15 million against 1Q13, mostly due to the effects of higher costs with outsourced services (US\$ 13 million).

In 2Q13, base metals posted expenses that included Vale Canada revenues of US\$ 160 million as insurance payment from Vale's reinsurance company for last year's incident in the acid plant at VNC. While this is accounted for as revenue for the base metals business, it is an expense for Vale's reinsurance company, thus not affecting Vale's consolidated financial performance. Total expenses excluding the effect of the insurance premium totaled US\$ 79 million in 2Q13.

The adjusted EBIT margin of the base metals operations was 0.3% in 2Q13. After excluding pre-operating expenses at Long Harbour (US\$ 43 million) and VNC (US\$ 168 million), and stoppage expenses at Onça Puma (US\$ 35 million), the operating income margin reached 14.9%.

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Adjusted EBITDA decreased to US\$ 451 million in 2Q13 from US\$ 757 million in the last quarter. After excluding the above-mentioned pre-operating and stoppage expenses, adjusted EBITDA reached US\$ 697 million. The main reason for the decline of adjusted EBITDA was the impact of falling sales prices. Salobo posted its first monthly positive EBITDA in June, and should start to contribute meaningfully to results given the dilution of fixed costs over higher volumes.

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

| US\$ million | 2Q13         | 1Q13         | 2Q12         |
|--------------|--------------|--------------|--------------|
| Nickel       | 983          | 1,084        | 1,119        |
| Copper       | 472          | 514          | 458          |
| PGMs         | 105          | 125          | 115          |
| Gold         | 96           | 77           | 58           |
| Silver       | 11           | 11           | 15           |
| Cobalt       | 19           | 18           | 16           |
| Others       | 14           | 14           |              |
| <b>Total</b> | <b>1,699</b> | <b>1,842</b> | <b>1,781</b> |

**AVERAGE SALE PRICE**

| US\$/ metric ton   | 2Q13      | 1Q13      | 2Q12      |
|--------------------|-----------|-----------|-----------|
| Nickel             | 15,123.08 | 17,205.76 | 17,761.90 |
| Copper             | 6,140.89  | 7,104.54  | 7,566.00  |
| Platinum (US\$/oz) | 1,438.72  | 1,626.29  | 1,493.65  |
| Gold (US\$/oz)     | 1,362.75  | 1,626.13  | 1,794.01  |
| Silver (US\$/oz)   | 16.93     | 26.09     | 29.74     |
| Cobalt (US\$/lb)   | 11.15     | 10.11     | 12.73     |

**VOLUME SOLD**

| 000 metric tons     | 2Q13 | 1Q13 | 2Q12 |
|---------------------|------|------|------|
| Nickel              | 65   | 63   | 63   |
| Copper              | 77   | 72   | 61   |
| Gold ( 000 oz)      | 70   | 47   | 32   |
| Silver ( 000 oz)    | 639  | 408  | 528  |
| PGMs ( 000 oz)      | 115  | 125  | 114  |
| Cobalt (metric ton) | 773  | 805  | 570  |

**SELECTED FINANCIAL INDICATORS**

| US\$ million | 2Q13    | 1Q13    | 2Q12    |
|--------------|---------|---------|---------|
| Costs(1)     | (1,126) | (1,059) | (1,208) |

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|  |       |       |        |
|--|-------|-------|--------|
| Expenses(1)                            | 81    | 166   | (152)  |
| Pre-operating and stoppage expenses(1) | (192) | (192) | (209)  |
| Adjusted EBIT margin(2) (%)            | 0.3   | 16.0  | (10.8) |
| Adjusted EBIT(2)                       | 5     | 294   | (192)  |
| Adjusted EBITDA(2)                     | 451   | 757   | 210    |

---

(1) Net of depreciation and amortization

(2) Excluding non-recurring items

### Fertilizer nutrients

Our sales of fertilizer nutrients are primarily destined for the Brazilian market, where the demand for nutrients is normally more concentrated in the second half of the year, so our production tends to be weaker in the first half of the year due to programmed maintenance.

Production of potash was 113,000 t in 2Q13, decreasing 5.4% quarter-over-quarter and 11.7% lower than 2Q12, due to a non-scheduled maintenance stoppage. Production of phosphate rock - which is used to produce phosphates - was 1.896 Mt, in line with the 1.991 Mt in the previous quarter despite a non-scheduled maintenance stoppage at Bayóvar.

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Potash revenues were down to US\$ 52 million from US\$ 57 million in 1Q13, as sales volumes showed a slight decrease to 117,000 t in 2Q13 from 120,000 t in 1Q13. Average sales prices were 5.8% lower, decreasing to US\$ 444.44 per metric ton from US\$ 471.66 in 1Q13. The price reduction was a result of the weaker demand in China and India that affected global prices.

Sales of phosphate rock increased 20.5% in the quarter, to 711,000 t from 590,000 t in 1Q13. Total shipments of MAP were 240,000 t, TSP 199,000 t, SSP 618,000 t, and DCP 127,000 t.

Revenues from sales of phosphate products reached US\$ 580 million in 2Q13, 16.9% higher quarter-on-quarter, due to the increase of sales volumes for almost all phosphate products (US\$ 112 million), partially offset by lower prices (US\$ 28 million) resulting from a weaker global demand.

Sales of nitrogen fertilizers were US\$ 148 million in 2Q13, 24.7% lower than the previous quarter. The decrease in revenue was related to lower sales volumes as the sale of the Araucária refinery was finalized on June 1st, 2013. As a consequence, we will no longer produce urea, while ammonia will be produced exclusively in Cubatão. Sales of other related products amounted to US\$ 25 million in 2Q13.

Overall, sales revenues from fertilizer nutrients increased to US\$ 805 million in 2Q13, 4.7% above the US\$ 769 million in the previous quarter.

In 2Q13, fertilizer costs were US\$ 594 million, net of depreciation charges, which were in line with 1Q13 after excluding the effects of higher volumes (US\$ 59 million) and exchange rate variations (-US\$ 18 million). Fertilizer nutrients expenses reduced quarterly, US\$ 43 million in 2Q13 against US\$ 55 million in the previous quarter. Pre- operating and stoppage expenses were US\$ 85 million, due to the effects of the stoppage of the Rio Colorado project, US\$ 76 million.

The adjusted EBIT margin of the fertilizer business was -8.8% in 2Q13, lower than the -4.0% on the previous quarter, negatively impacted by price declines and expenses associated with the stoppage of Rio Colorado.

Adjusted EBITDA for the fertilizers business totaled US\$ 38 million in 2Q13, compared to US\$ 90 million in 1Q13. Excluding the effects of the Rio Colorado project stoppage, adjusted EBITDA generated by the existing operations of the fertilizer business was US\$ 114 million in 2Q13, thus showing an improvement against the US\$ 90 million of 1Q13 in spite of lower prices.

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

| US\$ million | 2Q13 | 1Q13 | 2Q12 |
|--------------|------|------|------|
| Potash       | 52   | 57   | 81   |
| Phosphates   | 580  | 496  | 630  |

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|              |            |            |            |
|--------------|------------|------------|------------|
| Nitrogen     | 148        | 196        | 193        |
| Others       | 25         | 20         | 19         |
| <b>Total</b> | <b>805</b> | <b>769</b> | <b>923</b> |

**AVERAGE SALE PRICE**

| US\$/ metric ton | 2Q13   | 1Q13   | 2Q12   |
|------------------|--------|--------|--------|
| Potash           | 444.44 | 471.66 | 493.90 |
| Phosphates       |        |        |        |
| MAP              | 595.38 | 605.18 | 583.61 |
| TSP              | 492.57 | 505.59 | 505.23 |
| SSP              | 296.58 | 285.99 | 238.76 |
| DCP              | 610.58 | 642.68 | 622.39 |
| Phosphate rock   | 87.20  | 122.03 | 135.39 |
| Nitrogen         | 644.95 | 644.04 | 599.97 |

**VOLUME SOLD**

| 000 metric tons | 2Q13 | 1Q13 | 2Q12 |
|-----------------|------|------|------|
| Potash          | 117  | 120  | 164  |
| Phosphates      |      |      |      |

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|                   |     |     |     |
|-------------------|-----|-----|-----|
| MAP               | 240 | 298 | 268 |
| TSP               | 199 | 94  | 239 |
| SSP               | 618 | 430 | 693 |
| DCP               | 127 | 100 | 123 |
| Phosphate rock    | 711 | 590 | 746 |
| Others phosphates | 63  | 32  | 36  |
| Nitrogen          | 229 | 305 | 322 |

**SELECTED FINANCIAL INDICATORS**

| US\$ million                           | 2Q13  | 1Q13  | 2Q12  |
|--|-------|-------|-------|
| Costs(1)                               | (594) | (554) | (620) |
| Expenses(1)                            | (43)  | (55)  | (53)  |
| Pre-operating and stoppage expenses(1) | (85)  | (22)  | (13)  |
| Adjusted EBIT margin(2) (%)            | (8.8) | (4.0) | 7.9   |
| Adjusted EBIT(2)                       | (67)  | (29)  | 69    |
| Adjusted EBITDA(2)                     | 38    | 90    | 183   |

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(1) Net of depreciation and amortization

(2) Excluding non-recurring items

**Logistics services**

Revenues from logistics services for general cargo, that fall under VLI's concessions and contracts, totaled US\$ 430 million, an increase of 27.6% from US\$ 337 million in 1Q13, due to higher volumes transported and higher prices.

Revenue from rail transportation of general cargo was US\$ 350 million against US\$ 281 million in 1Q13, due to higher volumes of grains transported with the beginning of the crop season.

The railroads under VLI's concessions and contracts with Vale – Carajás (EFC), Vitória a Minas (EFVM), Norte-Sul (FNS) and Centro-Atlântica (FCA) – transported 7.793 billion ntk(17) of general cargo for clients in 2Q13, 18.1% greater than the 6.599 billion ntk in 1Q13.

The main cargoes carried by our railroads in 2Q13 were agricultural products (55.9%), steel industry inputs and products (25.7%), building materials and forestry products (11.6%), fuels (6.3%) and others (0.4%).



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The volume of agricultural products transported increased in 2Q13 driven by growth in the amount of grains carried. Steel industry products continued to face challenges due to weak market demand.

Port services revenues totaled US\$ 80 million, 42.9% above the US\$ 56 million in 1Q13. Our ports and maritime terminals handled 6.532 Mt of general cargo, 57.5% higher than the 4.149 Mt in 1Q13. The reason for the increase against last quarter was the start of the crop season in 2Q13 which was stronger for soybean and corn.

In 2Q13, costs of logistic services excluding depreciation and amortization were US\$ 267 million against US\$ 254 million in 1Q13. After adjusting for the effects of higher volumes (US\$63 million) and currency prices (-US\$ 9 million), costs were down US\$ 41 million, mostly due to the effects of lower personnel costs of US\$ 22 million.

Adjusted EBIT margin improved to 5.4% in 2Q13, compared to -17.4% in the previous quarter.

Logistics services had a positive cash generation, measured by adjusted EBITDA, of US\$ 59 million, against a negative US\$ 10 million in 1Q13. The main reasons for the improvement were the decrease in COGS (US\$ 41 million) and higher sales volumes (US\$ 20 million).

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(16) Vale's wholly-owned subsidiary, which consolidates the general cargo business.

(17) Ntk=net ton kilometer

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**Table 15 - LOGISTICS BUSINESS PERFORMANCE OPERATING REVENUE BY PRODUCT**

| US\$ million | 2Q13 | 1Q13 | 2Q12 |
|--------------|------|------|------|
| Railroads    | 350  | 281  | 294  |
| Ports        | 80   | 56   | 114  |
| Total        | 430  | 337  | 408  |

**VOLUME SOLD**

| 000 metric tons         | 2Q13  | 1Q13  | 2Q12  |
|-------------------------|-------|-------|-------|
| Railroads (million ntk) | 7,793 | 6,599 | 5,787 |
| Ports                   | 6,532 | 4,148 | 6,421 |

**SELECTED FINANCIAL INDICATORS**

| US\$ million             | 2Q13  | 1Q13   | 2Q12   |
|--------------------------|-------|--------|--------|
| Costs(1)                 | (267) | (254)  | (277)  |
| Expenses(1)              | (43)  | (44)   | (63)   |
| Adjusted EBIT margin (%) | 5.4   | (17.4) | (12.1) |
| Adjusted EBIT            | 20    | (50)   | (43)   |
| Adjusted EBITDA          | 59    | (10)   | 14     |

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(1) Net of depreciation and amortization

**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, August 8th. 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, 11:00 a.m. US Eastern Standard Time, 4:00 p.m. British Standard Time, and 11:00 p.m. Hong Kong time.

Dial in to conference calls/webcasts:

In Portuguese:

Participants from Brazil: (55 11) 4688-6341

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

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 August 8th, 2013.

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## ANNEX 1 FINANCIAL STATEMENTS

**Table 16 - INCOME STATEMENT**

| US\$ million                                 | 2Q13          | 1Q13          | 2Q12          |
|--|---------------|---------------|---------------|
| <b>Gross operating revenues</b>              | <b>11,277</b> | <b>11,201</b> | <b>12,726</b> |
| Taxes  | (245)         | (266)         | (257)         |
| <b>Net operating revenue</b>                 | <b>11,032</b> | <b>10,935</b> | <b>12,469</b> |
| Cost of goods sold                           | (6,223)       | (5,720)       | (6,552)       |
| <b>Gross profit</b>                          | <b>4,809</b>  | <b>5,215</b>  | <b>5,917</b>  |
| Gross margin (%)                             | 43.6          | 47.7          | 47.5          |
| Selling, general and administrative expenses | (324)         | (374)         | (615)         |
| Research and development expenses            | (158)         | (176)         | (359)         |
| Gain (loss) from sale of assets              |               |               | (377)         |
| Others                                       | (725)         | (509)         | (604)         |
| <b>Operating profit</b>                      | <b>3,602</b>  | <b>4,156</b>  | <b>3,962</b>  |
| Financial revenues                           | 158           | 71            | 120           |
| Financial expenses                           | (537)         | (604)         | (555)         |
| Gains (losses) on derivatives, net           | (983)         | 106           | (416)         |
| Monetary and exchange variation              | (1,965)       | 82            | (1,770)       |
| Tax and social contribution (Current)        | (263)         | (1,100)       | (25)          |
| Tax and social contribution (Deferred)       | 325           | 169           | (140)         |
| Reversal of deferred income tax              |               |               | 1,236         |
| Equity income and provision for losses       | 53            | 172           | 159           |
| Minority shareholding participation          | 34            | 57            | 69            |
| <b>Net earnings</b>                          | <b>424</b>    | <b>3,109</b>  | <b>2,640</b>  |
| <b>Earnings per share (US\$)</b>             | <b>0.08</b>   | <b>0.60</b>   | <b>0.52</b>   |

**Table 17 - FINANCIAL RESULTS**

| US\$ million                                    | 2Q13           | 1Q13         | 2Q12           |
|---|----------------|--------------|----------------|
| Gross interest                                  | (334)          | (333)        | (325)          |
| Debt with third parties                         | (334)          | (333)        | (325)          |
| Tax and labor contingencies                     | (45)           | (17)         | (12)           |
| Others  | (158)          | (254)        | (218)          |
| <b>Financial expenses</b>                       | <b>(537)</b>   | <b>(604)</b> | <b>(555)</b>   |
| <b>Financial income</b>                         | <b>158</b>     | <b>71</b>    | <b>120</b>     |
| <b>Derivatives</b>                              | <b>(983)</b>   | <b>106</b>   | <b>(416)</b>   |
| <b>Exchange and monetary gain (losses), net</b> | <b>(1,965)</b> | <b>82</b>    | <b>(1,770)</b> |
| <b>Financial result, net</b>                    | <b>(3,327)</b> | <b>(345)</b> | <b>(2,621)</b> |

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

| US\$ million | 2Q13 | % | 1Q13 | % | 2Q12 | % |
|--------------|------|---|------|---|------|---|
|--------------|------|---|------|---|------|---|

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|                  |           |              |            |              |            |              |
|------------------|-----------|--------------|------------|--------------|------------|--------------|
| Ferrous minerals | 76        | 143.4        | 162        | 94.2         | 174        | 109.4        |
| Coal             | 7         | 13.2         | 5          | 2.9          | 13         | 8.2          |
| Base metals      | (2)       | (3.8)        | (2)        | (1.2)        | 3          | 1.9          |
| Logistics        | 23        | 43.4         | 17         | 9.9          | 15         | 9.4          |
| Steel            | (44)      | (83.0)       | (2)        | (1.2)        | (38)       | (23.9)       |
| Others           | (7)       | (13.2)       | (8)        | (4.7)        | (8)        | (5.0)        |
| <b>Total</b>     | <b>53</b> | <b>100.0</b> | <b>172</b> | <b>100.0</b> | <b>159</b> | <b>100.0</b> |

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

| US\$ million             | 30/06/2013     | 31/03/2013     | 30/06/2012     |
|--------------------------|----------------|----------------|----------------|
| <b>Assets</b>            |                |                |                |
| Current                  | 21,051         | 22,876         | 20,792         |
| Long-term                | 9,477          | 7,948          | 5,487          |
| Fixed                    | 96,003         | 102,330        | 101,173        |
| <b>Total</b>             | <b>126,531</b> | <b>133,154</b> | <b>127,452</b> |
| <b>Liabilities</b>       |                |                |                |
| Current                  | 11,109         | 11,393         | 9,239          |
| Long term                | 43,717         | 44,225         | 37,473         |
| Shareholders' equity     | 71,705         | 77,536         | 80,740         |
| Paid-up capital          | 56,101         | 56,101         | 56,101         |
| Reserves                 | 14,160         | 19,901         | 23,073         |
| Non controlling interest | 1,444          | 1,534          | 1,566          |
| <b>Total</b>             | <b>126,531</b> | <b>133,154</b> | <b>127,452</b> |

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

| US\$ million  | 2Q13           | 1Q13           | 2Q12           |
|---|----------------|----------------|----------------|
| <b>Cash flows from operating activities:</b>  |                |                |                |
| Net income  | 390            | 3,052          | 2,571          |
| Adjustments to reconcile net income with cash provided by operating activities:                             |                |                |                |
| Depreciation, depletion and amortization  | 1,082          | 1,046          | 1,046          |
| Equity in results of affiliates and joint ventures and change in provision for losses on equity investments | (53)           | (172)          | (159)          |
| Deferred income taxes   | (325)          | (169)          | (1,096)        |
| Loss on sale of property, plant and equipment   | 87             | 78             | 207            |
| Gain on sale of investment  |                |                | 377            |
| Gain on sale of assets  |                | (244)          |                |
| Exchange and monetary losses  | 827            | (77)           | 159            |
| Net unrealized derivative losses  | 1,054          | (9)            | 642            |
| Debtentures   | 82             | 167            | (276)          |
| Others  | 55             | (51)           | (107)          |
| Accounts receivable   | 1,025          | 377            | 425            |
| Inventories   | 378            | (338)          | 292            |
| Recoverable taxes   | (198)          | 12             | (287)          |
| Others  | (66)           | 184            | (42)           |
| Suppliers   | 249            | (366)          | 92             |
| Payroll and related charges   | 203            | (658)          | 284            |
| Income tax  | 94             | (25)           | (166)          |
| Goldstream transaction  |                | 1,319          |                |
| Others  | 53             | (258)          | 305            |
| <b>Net cash provided by operating activities</b>  | <b>4,937</b>   | <b>3,868</b>   | <b>4,267</b>   |
| Cash flows from investing activities:   |                |                |                |
| Short term investments  | 155            | (321)          |                |
| Loans and advances receivable   | (85)           | 24             | 8              |
| Guarantees and deposits   | (18)           | (24)           | (76)           |
| Additions to investments  | (23)           | (182)          | (53)           |
| Additions to property, plant and equipment  | (3,392)        | (3,547)        | (3,228)        |
| Dividends received  | 272            |                | 112            |
| Proceeds from disposals of investment   |                | 95             | 366            |
| Proceeds from Goldstream transaction  |                | 581            |                |
| <b>Net cash used in investing activities</b>  | <b>(3,091)</b> | <b>(3,374)</b> | <b>(2,871)</b> |
| Cash flows from financing activities:   |                |                |                |
| Short-term debt, net issuances (repayments)   | 14             | (14)           | 21             |
| Long-term debt  | 526            | 129            | 1,809          |
| Repayment of long-term debt   | (102)          | (410)          | (502)          |
| Transactions of noncontrolling interest   |                |                | (427)          |
| Interest attributed to shareholders   | (2,250)        |                | (3,000)        |
| Dividends to minority interest  | (10)           |                | (35)           |
| <b>Net cash used in financing activities</b>  | <b>(1,822)</b> | <b>(295)</b>   | <b>(2,134)</b> |
| Increase (decrease) in cash and cash equivalents  | 24             | 199            | (738)          |
| Effect of exchange rate changes on cash and cash equivalents  | (179)          | 11             | (101)          |
| Cash and cash equivalents, beginning of period  | 6,042          | 5,832          | 4,922          |
| <b>Cash and cash equivalents, end of period</b>   | <b>5,887</b>   | <b>6,042</b>   | <b>4,083</b>   |
| Interest on long-term debt  | (361)          | (434)          | (350)          |
| Income tax  | (354)          | (824)          | (282)          |
| Interest capitalized  | 40             | 117            | 70             |





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

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

| 000 metric tons         | 2Q13   | 1Q13   | 2Q12   |
|-------------------------|--------|--------|--------|
| Iron ore                | 61,921 | 55,679 | 62,978 |
| Pellets                 | 10,203 | 9,425  | 12,277 |
| Manganese ore           | 310    | 417    | 510    |
| Ferroalloys             | 43     | 48     | 99     |
| Thermal coal            | 136    | 60     | 1,107  |
| Metallurgical coal      | 1,720  | 1,447  | 1,152  |
| Nickel                  | 65     | 63     | 63     |
| Copper                  | 77     | 72     | 61     |
| Gold ( 000 oz)          | 70     | 47     | 32     |
| Silver ( 000 oz)        | 639    | 408    | 528    |
| PGMs ( 000 oz)          | 115    | 125    | 114    |
| Cobalt (metric ton)     | 773    | 805    | 570    |
| Potash                  | 117    | 120    | 164    |
| Phosphates              |        |        |        |
| MAP                     | 240    | 298    | 268    |
| TSP                     | 199    | 94     | 239    |
| SSP                     | 618    | 430    | 693    |
| DCP                     | 127    | 100    | 123    |
| Phosphate rock          | 711    | 590    | 746    |
| Others phosphates       | 63     | 32     | 36     |
| Nitrogen                | 229    | 305    | 322    |
| Railroads (million ntk) | 7,793  | 6,599  | 5,787  |
| Ports                   | 6,532  | 4,148  | 6,421  |

**Table 22 - AVERAGE SALE PRICES**

| US\$/ton           | 2Q13      | 1Q13      | 2Q12      |
|--------------------|-----------|-----------|-----------|
| Iron ore           | 99.21     | 111.69    | 112.44    |
| Pellets            | 146.83    | 154.67    | 159.00    |
| Manganese ore      | 167.74    | 153.10    | 123.53    |
| Ferroalloys        | 1,302.33  | 1,383.69  | 1,303.03  |
| Thermal coal       | 103.49    | 94.30     | 70.97     |
| Metallurgical coal | 139.62    | 142.09    | 171.13    |
| Nickel             | 15,123.08 | 17,205.76 | 17,761.90 |
| Copper             | 6,140.89  | 7,104.54  | 7,566.00  |
| Platinum (US\$/oz) | 1,438.72  | 1,626.29  | 1,493.65  |
| Gold (US\$/oz)     | 1,362.75  | 1,626.13  | 1,794.01  |
| Silver (US\$/oz)   | 16.93     | 26.09     | 29.74     |
| Cobalt (US\$/lb)   | 11.15     | 10.11     | 12.73     |
| Potash             | 444.44    | 471.66    | 493.90    |
| Phosphates         |           |           |           |
| MAP                | 595.38    | 605.18    | 583.61    |
| TSP                | 492.57    | 505.59    | 505.23    |

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|                |        |        |        |
|----------------|--------|--------|--------|
| SSP            | 296.58 | 285.99 | 238.76 |
| DCP            | 610.58 | 642.68 | 622.39 |
| Phosphate rock | 87.20  | 122.03 | 135.39 |
| Nitrogen       | 644.95 | 644.04 | 599.97 |

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

| %                           | 2Q13         | 1Q13          | 2Q12          |
|-----------------------------|--------------|---------------|---------------|
| <b>Bulk materials(1)</b>    | <b>49.6</b>  | <b>51.6</b>   | <b>52.8</b>   |
| Ferrous minerals            | 52.8         | 56.4          | 56.0          |
| Coal                        | (46.1)       | (122.3)       | (53.6)        |
| <b>Base metals</b>          | <b>0.3</b>   | <b>16.0</b>   | <b>(10.8)</b> |
| <b>Fertilizer nutrients</b> | <b>(8.8)</b> | <b>(4.0)</b>  | <b>7.9</b>    |
| <b>Logistics</b>            | <b>5.4</b>   | <b>(17.4)</b> | <b>(12.1)</b> |
| <b>Total(1)</b>             | <b>32.7</b>  | <b>38.0</b>   | <b>34.8</b>   |

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(1) excluding non-recurring effects

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

**(a) Adjusted EBIT**

| US\$ million               | 2Q13         | 1Q13         | 2Q12         |
|----------------------------|--------------|--------------|--------------|
| Net operating revenues     | 11,032       | 10,935       | 12,469       |
| COGS                       | (6,223)      | (5,720)      | (6,552)      |
| SG&A                       | (324)        | (374)        | (615)        |
| Research and development   | (158)        | (176)        | (359)        |
| Other operational expenses | (725)        | (509)        | (604)        |
| <b>Adjusted EBIT(1)</b>    | <b>3,602</b> | <b>4,156</b> | <b>4,339</b> |

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(1) Excluding non-recurring effects

**(b) Adjusted EBITDA**

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

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

| US\$ million           | 2Q13         | 1Q13         | 2Q12         |
|------------------------|--------------|--------------|--------------|
| Operational cash flow  | 4,937        | 3,868        | 4,267        |
| Income tax             | 263          | 1,100        | 25           |
| FX and monetary losses | (827)        | 77           | 1,607        |
| Financial expenses     | 3,346        | 349          | 884          |
| Net working capital    | (1,738)      | (515)        | (903)        |
| Dividends received     | 272          |              | 112          |
| Other                  | (1,296)      | 323          | (495)        |
| <b>Adjusted EBITDA</b> | <b>4,957</b> | <b>5,202</b> | <b>5,497</b> |

**(c) Net debt**

| US\$ million              | 2Q13   | 1Q13   | 2Q12   |
|---------------------------|--------|--------|--------|
| Total debt                | 29,863 | 30,191 | 25,518 |
| Cash and cash equivalents | 6,255  | 6,609  | 4,082  |
| Net debt                  | 23,608 | 23,582 | 21,436 |

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

| US\$ million                               | 2Q13 | 1Q13 | 2Q12 |
|--|------|------|------|
| Total debt / LTM Adjusted EBITDA(1) (x)    | 1.6  | 1.6  | 0.9  |
| Total debt / LTM operational cash flow (x) | 1.7  | 1.8  | 1.3  |

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(1) excluding non-recurring items

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

| US\$ million  | 2Q13 | 1Q13 | 2Q12 |
|---|------|------|------|
| Total debt / EV (%)                                 | 32.4 | 26.2 | 20.1 |
| Total debt / total assets (%)                       | 23.6 | 22.7 | 20.0 |
| Enterprise value = Market capitalization + Net debt |      |      |      |

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

| US\$ million                                       | 2Q13 | 1Q13 | 2Q12 |
|--|------|------|------|
| LTM adjusted EBITDA(1) / LTM interest payments (x) | 13.2 | 13.7 | 24.8 |
| LTM operational profit / LTM interest payments (x) | 6.4  | 6.7  | 20.1 |

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(1) excluding non-recurring items

Table of Contents**(g) UNDERLYING EARNINGS**

| US\$ million                          | 2Q13         | 1Q13         | 2Q12         |
|---------------------------------------|--------------|--------------|--------------|
| <b>Underlying earnings</b>            | <b>3,287</b> | <b>3,089</b> | <b>4,081</b> |
| Gain(loss) on sale of assets          |              |              | (377)        |
| Reversal of Deferred Income tax       |              |              | 1,236        |
| Shareholders Debentures               | (84)         | (172)        | (71)         |
| Foreign exchange gains (losses) , net | (1,961)      | 107          | (1,824)      |
| Indexation gains (losses), net        | (4)          | (25)         | 54           |
| Currency and interest rate swaps      | (814)        | 110          | (459)        |
| <b>Net Income</b>                     | <b>424</b>   | <b>3,109</b> | <b>2,640</b> |

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

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**Signatures**

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

Vale S.A.  
(Registrant)

Date: August 7, 2013

By:

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

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