

Vale S.A.
Form 6-K
February 26, 2015
[Table of Contents](#)

United States
Securities and Exchange Commission

Washington, D.C. 20549

FORM 6-K

Report of Foreign Private Issuer

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

of the

Securities Exchange Act of 1934

For the month of

February 2015

Vale S.A.

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

(Address of principal executive office)

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

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

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

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

(Check One) Yes No

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

(Check One) Yes No

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

(Check One) Yes No

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

Table of Contents

Table of Contents:

Press Release

Signature Page

Table of Contents

BM&F BOVESPA: VALE3, VALE5

NYSE: VALE, VALE.P

HKEx: 6210, 6230

EURONEXT PARIS: VALE3, VALE5

LATIBEX: XVALO, XVALP

www.vale.com

rio@vale.com

Investor Relations Department

Rogério T. Nogueira

André Figueiredo

Carla Albano Miller

Fernando Mascarenhas

Andrea Gutman

Bruno Siqueira

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

Claudia Rodrigues

Marcio Loures Penna

Mariano Szachtman

Tel: (55 21) 3814-4540

VALE S PERFORMANCE IN 2014

Rio de Janeiro, February 26, 2015 In 2014 Vale S.A. (Vale) achieved several production records, further reduced expenses by US\$ 1.218 billion(1), completed eight capital projects, reduced capital expenditures by another US\$ 2.254 billion(2), negotiated a key partnership for our coal operation in Mozambique and still paid US\$ 4.2 billion in dividends while preserving a healthy capital structure.

2014 was a year of sound performance despite the challenges brought by declining commodity prices

- Annual production records in iron ore, copper and gold and the highest annual production in nickel since 2008:
- Iron ore supply of 331.6 Mt(3), including Vale sourced production record of 319.2 Mt(4), mainly due to the record production in Carajás of 119.7 Mt.
- Nickel production of 275,000 t, the highest annual production since 2008.
- Copper production record of 379,700 t, with ramp-up in Salobo to 98,000 t of production.
- Gold production record of 321,000 oz.
- Record sales volumes of iron ore and pellets (313.6 Mt) and gold (351,000 oz), and the highest sales volume of nickel (272,000 t) since 2008.
- Reduction of US\$ 1.218(1) billion in expenses across all businesses in 2014.
- SG&A(5) decreased by US\$ 234 million (21.1%).
- Pre-operating and stoppage expenses(5) decreased significantly by US\$ 747 million (45.9% reduction) from US\$ 1.628 billion in 2013 down to US\$ 881 million in 2014.

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

- Adjusted EBITDA of US\$ 13.353 billion in 2014, a decrease of 40.8% from the US\$ 22.560 billion in 2013, mainly due to lower commodity prices which negatively impacted adjusted EBITDA by US\$ 10.580 billion in 2014.
- Base metals adjusted EBITDA totaled US\$ 2.521 billion in 2014, an increase of 53.8% when compared to 2013 with higher nickel prices and volumes of both copper and nickel more than offsetting the weaker price scenario for copper in 2014.
- Fertilizers adjusted EBITDA improved from -US\$ 54 million in 2013 to US\$ 278 million in 2014, despite lower sales volumes and prices.
- Underlying earnings of US\$ 4.419 billion in 2014 excluding one-time effects of (i) foreign exchange and monetary losses (-US\$ 2.200 billion), (ii) impairment of assets (-US\$ 1.152 billion), (iii) currency and interest rate swap losses (-US\$ 683 million), (iv) mark-to-market of shareholder debentures (-US\$ 315 million) and (v) relinquishment

(1) Excluding depreciation and amortization and the one-off effect of the goldstream transaction in 1Q13 of US\$ 244 million.

(2) Including US\$ 602 million in capex for VLI in 2013.

(3) Excluding Samarco's attributable production and including third party ores.

(4) Excluding Samarco's attributable production.

(5) Net of depreciation.

Table of Contents

of land associated with the renewal of PTVI's contract of work (CoW) in Indonesia (-US\$ 167 million), among others.

- Reduction of US\$ 2.254 billion in capex from US\$ 14.233 billion in 2013(6) to US\$ 11.979 billion in 2014, marking the fourth consecutive year of capex reductions.
- Improvement in Health and Safety indicators with Total Recordable Injury Frequency Rate (TRIFR) falling from 2.6 to 2.3(7).

4Q14 was a quarter marked by production records, low prices and non-recurring effects on EBITDA and earnings

- Quarterly production records in:
 - Iron ore output in Carajás of 34.9 Mt.
 - Total iron ore production of 83.0 Mt, a record for a fourth quarter.
 - Pellet production of 11.6 Mt, a record for a fourth quarter.
 - Nickel production of 73,600 t.
 - Copper production of 105,400 t, with ramp-up in Salobo to 31,600 t.
 - Gold production of 93,600 oz.
- Adjusted EBITDA of US\$ 2.187 billion in 4Q14 was negatively impacted by one-off costs and expenses of (i) US\$ 98 million related to the write-down of thermal coal inventory, (ii) US\$ 90 million due to the write-down of ICMS tax credits, (iii) US\$ 107 million due to provision for current and long term environmental obligations and (iv) US\$ 48 million of inventory adjustments and the opening of N4WS at Carajás. Excluding these one-off effects, the adjusted EBITDA would have been US\$ 2.530 billion in 4Q14.

2014 was also a year of important accomplishments for paving the road towards strong free cash flow generation

- Granting of the operating license to expand the N4WS mine pit located in Carajás, supporting our iron ore production plan for 2015 and 2016.

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

- Completion of eight projects on time and on budget (Tubarão VIII, Serra Leste, the distribution center in Malaysia, Vargem Grande, the 5th line of Brucutu, Salobo II, Nacala and Long Harbour).
- Investment Agreement with Mitsui, whereby Mitsui will own 15% of Vale's stake in Vale Moçambique and 50% of Vale's stake in Nacala with an expected impact of US\$ 3.7 billion in terms of capex avoidance and cash inflow.
- Renegotiation of an extension of PTVI's CoW and mining concession until 2045.

For 2015 we have optimized and revised down our capex plan and are intensifying our corporate simplification and cost cutting efforts, while accelerating the divestment and partnership initiatives to unlock value and build the foundations for strong free cash flow generation by 2017 onwards.

(6) Including US\$ 602 million in capex for VLI in 2013.

(7) Per million hours worked.

Table of Contents**SELECTED FINANCIAL INDICATORS**

US\$ million	2014	2013(1)	2012	2011	2010
Gross operating revenues	38,236	47,486	48,753	62,345	46,481
Net operating revenues	37,539	46,767	47,694	60,946	45,293
Adjusted EBIT	8,497	17,576	14,430	28,748	21,695
Adjusted EBIT margin (%)	22.6	37.6	30.3	47.2	47.9
Adjusted EBITDA	13,353	22,560	19,178	33,730	26,116
Adjusted EBITDA margin (%)	35.6	48.2	40.2	55.3	57.7
Net income	657	584	5,197	22,652	17,453
Underlying earnings	4,419	12,269	10,365	23,015	17,289
Underlying earnings per share on a fully diluted basis (US\$ / share)	0.86	2.38	2.03	4.39	3.26
Total gross debt	28,807	29,655	30,546	23,143	25,343
Cash and cash equivalent	4,122	5,324	6,078	3,531	9,377
Total Net Debt	24,685	24,331	24,468	19,612	15,966
Total gross debt / adjusted EBITDA (x)	2.2	1.3	1.6	0.7	1.0
Capital expenditures (excluding R&D and acquisitions)	11,979	14,233	16,196	16,252	11,569

(1) Throughout this report, 2013 figures were adjusted to the sale of VLI, with the exception of capital expenditures.

US\$ million	4Q14	3Q14	4Q13
Gross operating revenues	9,226	9,249	13,273
Net operating revenues	9,072	9,062	13,125
Adjusted EBIT	856	1,625	5,046
Adjusted EBIT margin (%)	9.4	17.9	38.4
Adjusted EBITDA	2,187	3,004	6,639
Adjusted EBITDA margin (%)	24.1	33.1	50.6
Net income (loss)	(1,849)	(1,437)	(6,451)
Underlying earnings	(251)	666	3,218
Underlying earnings per share on a fully diluted basis (US\$ / share)	(0.05)	0.13	0.62

Except where otherwise indicated the operational and financial information in this release is based on the consolidated figures in accordance with IFRS and, with the exception of information on investments and behavior of markets, quarterly financial statements are reviewed by the company's independent auditors. The main subsidiaries that are consolidated are the following: Compañía Minera Miski Mayo S.A.C., Mineração Corumbaense Reunida S.A., PT Vale Indonesia Tbk (formerly International Nickel Indonesia Tbk), Salobo Metais S.A, Vale Australia Pty Ltd., Vale International Holdings GMBH, Vale Canada Limited (formely Vale Inco Limited), Vale Fertilizantes S.A., Vale International S.A., Vale Manganês S.A., Vale Moçambique S.A., Vale Nouvelle-Calédonie SAS, Vale Oman Pelletizing Company LLC and Vale Shipping Holding PTE Ltd..

Table of Contents

OPERATING REVENUES

Annual performance

In 2014, gross operating revenues totaled US\$ 38.236 billion, a decrease of 19.5% when compared with 2013. The decrease was primarily a result of lower iron ore sales prices (US\$ 9.210 billion) and lower pellets sales prices (US\$ 1.139 billion), which were partly offset for the most part by higher iron ore sales volumes (US\$ 543 million) and higher pellets sales volumes (US\$ 405 million).

The share of our ferrous minerals business – iron ore, pellets, manganese ore and ferroalloys – in gross operating revenues decreased from 74.3% in 2013 to 68.4%. Base metals increased its share in gross revenues from 15.4% in 2013 to 20.1% in 2014, mainly due to the improvement in nickel sales volumes and prices, while fertilizers grew its share from 6.3% in 2013 to 6.8% in 2014. Coal decreased to 1.9%, from 2.1% in 2013, mainly as a result of lower sales prices.

Asia represented 51.2% of total gross revenues in 2014 and China alone represented 33.1%. The Americas share increased to 26.3%, due to higher sales volumes in Brazil, which represented 17.3% of sales. Europe's share decreased slightly to 17.5%. Gross revenues from sales to the Middle East were 3.3% in 2014. The rest of the world contributed with 1.6% in 2014.

Quarterly performance

Gross operating revenues in 4Q14 were US\$ 9.226 billion, slightly below 3Q14. The decrease in sales prices was mainly due to iron ore (US\$ 493 million), pellets (US\$ 187 million) and nickel prices (US\$ 166 million), which was partly offset by higher sales volumes of iron ore (US\$ 787 million) and pellets (US\$ 139 million).

The share of our ferrous minerals business in gross operating revenues increased to 67.3% from 64.2% in 3Q14, mainly due to the improvement in iron ore and pellets sales volumes. Base metals decreased its share in gross revenues from 23.0% in 3Q14 to 21.1% in 4Q14 and fertilizers decreased its share from 8.1% in 3Q14 to 6.6% in 4Q14, while coal maintained its share at 2.2%.

In 4Q14, sales to Asia over total sales increased to 52.0%, from 49.2% in 3Q14, while the shares of sales to the Americas, Europe and the Middle East decreased. Sales to the Americas represented 26.1% of total sales, to Europe 16.9%, the Middle East 3.1%, while the rest of the world contributed with 1.9%.

Sales to China represented 33.5% of total gross revenues in 4Q14, Brazil 17.8%, Japan 9.2%, Germany 4.8%, Canada 3.9%, South Korea 3.3% and United States 3.1%.

GROSS OPERATING REVENUE BY DESTINATION

US\$ million	4Q14	3Q14	4Q13	2014	%	2013	%
North America	642	746	610	2,771	7.2	2,383	5.0
South America	1,769	1,903	1,731	7,308	19.1	7,685	16.2
Brazil	1,645	1,744	1,571	6,624	17.3	6,909	14.5
Others	124	159	160	684	1.8	776	1.6
Asia	4,798	4,551	7,868	19,590	51.2	26,558	55.9
China	3,091	2,799	5,687	12,657	33.1	18,920	39.8
Japan	848	904	1,163	3,627	9.5	4,035	8.5
Others	859	849	1,018	3,306	8.6	3,602	7.6
Europe	1,556	1,582	2,432	6,697	17.5	8,762	18.5
Germany	442	516	920	2,111	5.5	3,285	6.9
Italy	130	226	271	849	2.2	1,055	2.2
Others	985	841	1,241	3,737	9.8	4,422	9.3
Middle East	288	359	458	1,266	3.3	1,494	3.1
Rest of the World	173	108	174	605	1.6	605	1.3
Total	9,226	9,249	13,273	38,236	100.0	47,486	100.0

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

US\$ million	4Q14	3Q14	4Q13	2014	%	2013	%
Ferrous minerals	6,213	5,935	10,177	26,140	68.4	35,271	74.3
Iron ore fines	4,593	4,287	8,237	19,439	50.8	28,129	59.2
ROM	42	54	77	233	0.6	300	0.6
Pellets	1,308	1,356	1,677	5,424	14.2	6,158	13.0
Manganese ore	92	50	99	226	0.6	333	0.7
Ferroalloys	51	47	62	218	0.6	239	0.5
Others	127	141	25	600	1.6	113	0.2
Coal	201	201	333	739	1.9	1,010	2.1
Metallurgical coal	181	184	304	661	1.7	951	2.0
Thermal coal	20	17	29	78	0.2	59	0.1
Base metals	1,948	2,129	1,897	7,694	20.1	7,299	15.4
Nickel	1,064	1,288	957	4,468	11.7	3,889	8.2
Copper	556	579	647	2,122	5.5	2,367	5.0
PGMs	152	141	132	564	1.5	477	1.0
Gold	115	116	118	418	1.1	398	0.8
Silver	11	4	11	37	0.1	43	0.1
Others	50	1	32	85	0.2	125	0.3
Fertilizer nutrients	607	747	591	2,585	6.8	2,977	6.3
Potash	45	47	50	169	0.4	222	0.5
Phosphates	432	560	423	1,904	5.0	2,120	4.5
Nitrogen	108	109	95	411	1.1	543	1.1
Others	22	31	23	101	0.3	92	0.2
Others	257	237	275	1,078	2.8	925	1.9
Total	9,226	9,249	13,273	38,236	100.0	47,486	100.0

COSTS AND EXPENSES

Cost of Goods Sold (COGS)**Annual performance**

COGS amounted to US\$ 25.064 billion in 2014, recording an increase of US\$ 819 million when compared to the US\$ 24.245 billion in 2013, mainly as a result of higher volumes. Ferrous minerals costs increased by US\$ 1.371 billion (10.2%), mainly as a result of increased sales volumes (7.9%), while base metals decreased by US\$ 35 million, coal by US\$ 130 million and fertilizers by US\$ 304 million.

Cost performance will be analyzed in further detail in the [Performance of the Business Segments](#) section.

Quarterly performance

COGS(8) totaled US\$ 6.892 billion in 4Q14, an increase of US\$ 391 million when compared to the US\$ 6.501 billion recorded in 3Q14. Ferrous minerals costs increased by US\$ 508 million and base metals increased by US\$ 95 million, while coal decreased by US\$ 30 million and fertilizers decreased by US\$ 170 million.

As with the yearly performance, increased costs in 4Q14 were also influenced by higher sales volumes sold in the period. Further details on cost performance are provided in the "Performance of the Business Segments" section.

(8) COGS currency exposure in 4Q14 was made up as follows: 52% Brazilian Reais, 34% US dollar, 11% Canadian dollar, 1% Australian dollar and 2% other currencies.

Table of Contents**COGS BY BUSINESS**

US\$ million	4Q14	3Q14	4Q13	2014	%	2013	%
Ferrous minerals	4,278	3,770	3,866	14,800	59.0	13,429	55.4
Base metals	1,718	1,623	1,583	6,181	24.7	6,215	25.6
Coal	285	315	416	1,191	4.8	1,321	5.4
Fertilizers	492	662	559	2,273	9.1	2,577	10.6
Other products	119	130	234	619	2.5	701	2.9
Total COGS	6,892	6,501	6,658	25,064	100.0	24,245	100.0
Depreciation	1,122	992	995	3,857		3,725	
COGS ex-depreciation	5,770	5,509	5,663	21,207		20,520	

Expenses**Annual performance**

Expenses decreased by US\$ 968 million in 2014, to US\$ 3.978 billion from US\$ 4.946 billion in 2013, mainly due to lower pre-operating and stoppage, SG&A and research and development expenditures (R&D), which were partially offset by higher expenses in other areas. Excluding depreciation (US\$ 431 million), total expenses amounted to US\$ 3.547 billion in 2014, a decrease of US\$ 1.218 billion when compared to the US\$ 4.765 billion in 2013, after excluding the one-off impact of the goldstream transaction in 1Q13 (US\$ 244 million).

SG&A decreased by 15.6%, down to US\$ 1.099 billion in 2014, from US\$ 1.302 billion in 2013. After excluding the effect of depreciation, SG&A decreased by 21.1%, to US\$ 876 million in 2014, from US\$ 1.110 billion in 2013. This decrease was mainly due to the revision of contracted services and simplification of our organizational structure, which led to reduced third-party services (-US\$ 137 million) and personnel expenses (-US\$ 64 million).

R&D expenditures decreased by 8.4%, down to US\$ 734 million in 2014, from US\$ 801 million in 2013, as our research focus shifted from greenfield to brownfield exploration and productivity-focused research. The large majority of R&D expenses were focused on iron ore and pellets (US\$ 329 million) and base metals (US\$ 143 million).

Pre-operating and stoppage expenses decreased by a total of 41.5%, down to US\$ 1.088 billion in 2014, from US\$ 1.859 billion in 2013. Pre-operating expenses decreased by 18.5%, down to US\$ 1.003 billion in 2014, from US\$ 1.231 billion in 2013. Stoppage expenses decreased by 86.5%, down to US\$ 85 million in 2014 from US\$ 628 million in 2013, as a result of lower expenses associated with the Rio Colorado Project (PRC) (-US\$ 359 million) and Onça Puma (-US\$ 120 million) in 2014 when compared to 2013.

Other expenses, excluding the one-off impact of the goldstream transaction in 1Q13 (US\$ 244 million), decreased by 13.9%, to US\$ 1.057 billion in 2014, from US\$ 1.228 billion in 2013.

Quarterly performance

Total expenses increased by 41.5% quarter-on-quarter, to US\$ 1.324 billion in 4Q14 from US\$ 936 million in 3Q14, and decreased by 6.8% year-on-year, from US\$ 1.421 billion in 4Q13. This quarter was particularly affected by higher than usual expenses related to the write-down of thermal coal inventory, the write-down of ICMS tax credits and provisions for environmental obligations.

SG&A increased by 11.7% quarter-on-quarter, to US\$ 306 million in 4Q14 from US\$ 274 million in 3Q14, and decreased by 9.7% year-on-year, from US\$ 339 million in 4Q13. Increases in SG&A expenses compared to the 3Q14 were driven by higher personnel costs (US\$ 10 million), rents and taxes (US\$ 7 million) and selling expenses (US\$ 6 million). SG&A in the fourth quarter is usually higher mainly as a result of salary adjustments based on the labor agreements settled with our Brazilian employees during this time of the year.

R&D expenses increased by 21.1% quarter-on-quarter, to US\$ 235 million in 4Q14 from US\$ 194 million in 3Q14, and decreased by 13.6% year-on-year, from US\$ 272 million in 4Q13. R&D expenses were mostly focused on iron ore and

Table of Contents

pellets (US\$ 117 million) and base metals (US\$ 45 million). The peak in R&D expenses in 4Q14 is not an upward trend, being in accordance with the usual seasonality for these expenses.

Pre-operating and stoppage expenses increased by 2.8% quarter-on-quarter, to US\$ 292 million in 4Q14 from US\$ 284 million in 3Q14, and decreased by 38.3% year-on-year, from US\$ 473 million in 4Q13.

(i) Pre-operating expenses decreased by 5.5% quarter-on-quarter, down to US\$ 258 million in 4Q14 from US\$ 273 million in 3Q14, as a result of lower pre-operating expenses in Malaysia (-US\$ 16 million) and S11D (-US\$ 7 million).

(ii) Stoppage expenses increased by US\$ 23 million in 4Q14, to US\$ 34 million in 4Q14 from US\$ 11 million in 3Q14, mainly driven by higher expenses with Rio Colorado Project. These increased expenses stem from the effects of asset sales in 3Q14 along with the closing of the civil constructor contract and assets write-off.

Other operating expenses increased quarter-on-quarter to US\$ 491 million in 4Q14, from US\$ 184 million in 3Q14 and US\$ 337 million in 4Q13, mainly as a result of the one-off expenses concentrated in 4Q14:

(i) US\$ 107 million related to provisions for current and long term environmental obligations;

(ii) US\$ 98 million for one-off expenses related to the write-down of thermal coal inventory; and,

(iii) US\$ 90 million due to the write-down of ICMS tax credits.

EXPENSES

US\$ million	4Q14	3Q14	4Q13	2014	%	2013	%
SG&A ex-depreciation	247	206	289	876		1,110	
SG&A	306	274	339	1,099	27.6	1,302	26.3
Administrative	292	266	328	1,019	25.6	1,203	24.3
Personnel	118	108	112	436	11.0	500	10.1
Services	53	51	109	196	4.9	333	6.7
Depreciation	59	68	50	223	5.6	192	3.9
Others	62	39	46	164	4.1	167	3.4
Selling	14	8	11	80	2.0	99	2.0

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

R&D	235	194	272	734	18.5	801	16.2
Pre-operating and stoppage expenses(1)	292	284	473	1,088	27.4	1,859	37.6
VNC	141	137	167	549	13.8	606	12.3
Rio Colorado	17	(5)	102	22	0.6	398	8.0
Long Harbour	42	36	65	125	3.1	209	4.2
Onça Puma			22			120	2.4
Others	92	116	117	392	9.9	526	10.6
Other operating expenses	491	184	337	1,057	26.6	984	19.9
Total Expenses(2)	1,324	936	1,421	3,978		4,946	
Depreciation	120	127	99	431		425	
Expenses ex-depreciation(2)	1,204	809	1,322	3,547		4,521	

(1) Includes US\$ 61 million of depreciation charges in 4Q14, US\$ 59 million in 3Q14 and US\$ 49 million in 4Q13, totaling US\$ 207 million in 2014 and US\$ 231 million in 2013.

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

COSTS AND EXPENSES

US\$ million	4Q14	3Q14	4Q13	2014	2013
Costs	6,892	6,501	6,658	25,064	24,245
Expenses	1,324	936	1,421	3,978	4,946
Total costs and expenses	8,216	7,437	8,079	29,042	29,191
Depreciation	1,242	1,119	1,094	4,288	4,150
Costs and expenses ex-depreciation	6,974	6,318	6,985	24,754	25,041

Table of Contents

ADJUSTED EARNINGS BEFORE INTEREST, TAXES, DEPRECIATION AND AMORTIZATION

Annual performance

Adjusted EBITDA reached US\$ 13.353 billion in 2014, showing a decrease of 40.8% from the US\$ 22.560 billion(9) in 2013. The decrease in adjusted EBITDA was mainly due to lower commodity prices (-US\$ 10.580 billion) and lower dividends received from non-consolidated affiliated companies (-US\$ 266 million), which were partially offset by lower costs(10) (US\$ 362 million) together with a reduction in administrative, sales and other expenses (US\$ 907 million) and higher sales volumes (US\$ 315 million).

Operating income, measured by adjusted EBIT, was US\$ 8.497 billion in 2014, 51.7% lower than the US\$ 17.576 billion in the previous year. Adjusted EBIT margin decreased to 22.6% in 2014 versus 37.6% in 2013.

Quarterly performance

Adjusted EBITDA was US\$ 2.187 billion in 4Q14, 27.2% lower than in 3Q14. The negative impact of lower prices (-US\$ 773 million) and lower dividends received from non-consolidated affiliated companies (-US\$ 171 million) in conjunction with higher administrative, sales and other expenses (-US\$ 354 million) and costs (-US\$ 127 million(11)) were the main factors underlying the decrease in adjusted EBITDA, which was partly mitigated by the positive effects of higher sales volumes (US\$ 329 million) and exchange rate variations (US\$ 320 million).

Adjusted EBITDA in 4Q14 was negatively impacted by one-off expenses of (i) US\$ 98 million related to the write-down of thermal coal inventory, (ii) US\$ 90 million due to the write-down of ICMS tax credits, (iii) US\$ 107 million due to provision for current and long term environmental obligations and (iv) US\$ 48 million of inventory adjustments and the opening of N4WS at Carajás. Excluding these one-off effects, the adjusted EBITDA would have been US\$ 2.530 billion in 4Q14.

Adjusted EBIT was US\$ 856 million in 4Q14, being US\$ 769 million lower than in 3Q14. Adjusted EBIT margin was 9.4% in 4Q14.

ADJUSTED EBITDA

US\$ million	4Q14	3Q14	4Q13	2014	2013
Gross operating revenues	9,226	9,249	13,273	38,236	47,486
Net operating revenues	9,072	9,062	13,125	37,539	46,767
COGS	(6,892)	(6,501)	(6,658)	(25,064)	(24,245)
SG&A	(306)	(274)	(339)	(1,099)	(1,302)
Research and development	(235)	(194)	(272)	(734)	(801)

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

Pre-operating and stoppage expenses	(292)	(284)	(473)	(1,088)	(1,859)
Other operational expenses	(491)	(184)	(337)	(1,057)	(984)
Adjusted EBIT	856	1,625	5,046	8,497	17,576
Depreciation, amortization & depletion	1,242	1,119	1,094	4,288	4,150
Dividends received	89	260	499	568	834
Adjusted EBITDA	2,187	3,004	6,639	13,353	22,560

(9) 2013 figures were adjusted to the sale of VLI.

(10) COGS without the effect of volume

(11) COGS without the effect of volume and exchange rates

Table of Contents**ADJUSTED EBITDA BY BUSINESS AREA**

US\$ million	4Q14	3Q14	4Q13	2014	2013
Ferrous minerals	1,702	2,411	6,654	11,321	21,543
Coal	(204)	(149)	(82)	(669)	(455)
Base metals	582	781	243	2,521	1,639
Fertilizer nutrients	75	96	(105)	278	(54)
Others	32	(135)	(71)	(98)	(113)
Total	2,187	3,004	6,639	13,353	22,560

NET INCOME

Annual performance

Net income was US\$ 657 million in 2014 against US\$ 584 million in 2013. Underlying earnings amounted to US\$ 4.419 billion after excluding the following one-off effects: (i) foreign exchange and monetary losses (-US\$ 2.200 billion)(12); (ii) impairment of assets (-US\$ 1.152 billion) and related tax credit impairment (-US\$ 57 million); (iii) currency and interest rate swap losses (-US\$ 683 million); (iv) mark-to-market of shareholder debentures (-US\$ 315 million); (v) relinquishment of land associated with the renewal of PTVI's CoW in Indonesia (-US\$ 167 million); (vi) foreign exchange losses on equity results (-US\$ 159 million); (vii) fair value on financial instruments (-US\$ 115 million); (viii) losses on sale of investments (-US\$ 61 million); and (ix) tax adjustments (US\$ 1.147 billion).

Net financial results were a loss of US\$ 6.069 billion in 2014, against a loss of US\$ 8.332 billion in 2013. The main components of net financial results include: (i) financial expenses (-US\$ 2.936 billion); (ii) financial revenues (US\$ 401 million); (iii) foreign exchange and monetary losses (-US\$ 2.200 billion); and (iv) losses on derivatives (-US\$ 1.334 billion), of which US\$ 683 million due to the currency swap losses and US\$ 614 million due to the bunker oil hedge (including the loss of US\$ 363 million related to the mark-to-market of the 2015 open hedge positions). Part of the bunker oil hedge qualifies for hedge accounting and therefore its mark-to-market variation is recognized in comprehensive income, not having an impact on our financial results, unless it is settled within the period. Further details on the impact of the bunker oil hedge can be found in the box [The impact of freight on Vale's financial performance](#).

Quarterly performance

In 4Q14, there was a loss of US\$ 1.849 billion against a loss of US\$ 1.437 billion in 3Q14. Underlying earnings accrued a loss of US\$ 251 million after excluding the following one-off effects: (i) foreign exchange and monetary losses (-US\$ 1.257 billion)(13); (ii) currency and interest rate swap losses (-US\$ 524 million); (iii) impairment of assets (-US\$ 378 million) and related tax credit impairment (US\$ 70 million); (iv) relinquishment of land associated with the renewal of PTVI's CoW in Indonesia (-US\$ 167 million); (v) fair value on financial instruments (US\$ 17 million); (vi) mark-to-market of shareholder debentures (US\$ 62 million); and (vii) tax adjustments (US\$ 579 million).

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

The impairments recognized in 4Q14 were: (i) US\$ 1.053 billion related to the overall fertilizers assets in Brazil due to worsened market conditions; (ii) US\$ 635 million in Simandou, complementing the impairment of US\$ 500 million booked in 2Q14, as the discussions with the Government of Guinea did not progress as expected and the uncertainties increased regarding the recognition of, and the compensation for, Vale's investments in the country; (iii) US\$ 238 million at VNC, as the ramp-up process has taken longer than expected; and (iv) US\$ 69 million related to Australian coal assets as a result of Isaac Plains and Integra Coal mines being put under care and maintenance. In 4Q14, we also booked an impairment reversal of US\$ 1.617 billion at Onça Puma, out of the original impairment of US\$ 2.849 billion recorded in 4Q12, as operations resumed production successfully.

(12) As result of the BRL depreciation of 13.4% against the USD in 2014 and its impact on Vale's net debt position in US dollars.

(13) As result of the BRL depreciation of 8.4% against the USD in 4Q14 and its impact on Vale's net debt position in US dollars. For more information please see the box "Effects of currency price volatility on Vale's financial performance" .

Table of Contents**ASSETS**

US\$ million	Book Value before impairments	Impairments in 4Q14	Total impairments in 2014	Book Value after impairments Dec 31, 2014
Fertilizers assets in Brazil(1)	4,514	1,053	1,053	3,461
Simandou	1,135	635	1,135	
VNC	5,674	238	238	5,436
Australian coal assets	480	69	343	137
Onça Puma	845	(1,617)	(1,617)	2,462
Total	12,648	378	1,152	11,496

(1) Including intangible assets.

Net financial results were a loss of US\$ 2.791 billion in 4Q14, compared to a loss of US\$ 3.368 billion in 3Q14. The main components of net financial results include: (i) financial expenses (-US\$ 502 million), (ii) financial revenues (US\$ 55 million), (iii) foreign exchange and monetary losses (-US\$ 1.257 billion) and (iv) losses on derivatives (-US\$ 1.087 billion), of which a loss of US\$ 524 million due to currency swap losses and US\$ 563 million due to the bunker oil hedge (including the loss of US\$ 363 million related to the mark-to-market of the 2015 open hedge positions). Further details on the impact of the bunker oil hedge can be found in the box *The impact of freight on Vale's financial performance*.

EFFECTS OF CURRENCY PRICE VOLATILITY ON VALE'S FINANCIAL PERFORMANCE

In 4Q14, the BRL depreciated 8.4% against the USD from BRL 2.45/ USD as of September 30th, 2014 to BRL 2.66/ USD as of December 31st, 2014. On a quarterly average, the depreciation of the BRL was 11.8%, from BRL 2.27/USD in 3Q14 to BRL 2.54/USD in 4Q14.

Although Vale reports its financial performance in USD, the BRL depreciation impacts its results since the functional currency of Vale's parent company, Vale S. A., is the BRL.

The depreciation of the BRL against the USD and other currencies produced mainly non-cash impacts on our earnings before taxes in 4Q14 driven by:

(i) The impact on net financial liabilities – USD denominated debt minus accounts receivable in USD – which amounted to a loss of US\$ 1.257 billion in 4Q14, recorded in the financial statements as Foreign exchange rate and monetary variations.

(ii) The impact on forward and swaps derivatives that are used to minimize the volatility of our cash flow in USD. In 4Q14, the fair value variations of the currency swaps from BRL and other currencies to USD caused one-off losses of US\$ 524 million.

Additionally, the BRL depreciation produces positive impacts on our cash flow, as in 4Q14 most of our revenues were USD-denominated, while our COGS were 52% in BRL, 34% in USD and 11% in Canadian dollars (CAD) and about 62% of our capital expenditures were in BRL. The depreciation of BRL and other currencies in 4Q14 reduced our COGS by US\$ 397 million.

Equity income from affiliated companies

Equity income from affiliated companies totaled US\$ 31 million in 4Q14, lower than the US\$ 35 million in the previous quarter. The main contributors to equity income were MRS (US\$ 21 million), the leased pelletizing companies in Tubarão (US\$ 40 million), VLI (US\$ 16 million), CSP (US\$ 7 million) and Samarco (US\$ 7 million). In

Table of Contents

4Q14, the equity income from Samarco continued to decrease on a quarterly basis due to the impact of the BRL depreciation against the USD in its debt. Results from energy (-US\$ 52 million) and the base metals business (-US\$ 10 million) partially reduced the equity income.

UNDERLYING EARNINGS

US\$ million	4Q14	3Q14	4Q13	2014	2013
Underlying earnings	(251)	666	3,218	4,419	12,269
Items excluded from basic earnings					
Impairment on assets	(378)		(2,298)	(1,152)	(2,298)
Gain (loss) on sale of assets			(366)		(424)
COW agreement - Indonesia	(167)			(167)	
Shareholders debentures	62	(87)	(16)	(315)	(381)
Foreign exchange and monetary variation gains (losses), net	(1,257)	(1,943)	(944)	(2,200)	(2,940)
Currency and interest rate swaps	(524)	(740)	(226)	(683)	(861)
Fair value on financial instruments	17	(132)	214	(115)	214
Gain (loss) on sale of investments		(43)	41	(61)	41
Foreign exchange gain (loss) on equity results		(159)		(159)	
Financial expenses - REFIS			(2,637)		(2,637)
Income taxes - REFIS			(3,832)		(3,832)
Other			27		27
Tax effects of impairment	70			(57)	
Tax effects of others	579	1,001	368	1,147	1,406
Net Income (loss)	(1,849)	(1,437)	(6,451)	657	584

FINANCIAL RESULTS

US\$ million	4Q14	3Q14	4Q13	2014	2013
Gross interest(1)	(259)	(105)	(359)	(1,148)	(1,335)
Tax and labour contingencies	(22)	(27)	(15)	(91)	(109)
Others	(56)	(462)	(274)	(1,014)	(921)
Financial expenses (REFIS)	(165)	(175)	(2,637)	(683)	(2,637)
Financial expenses	(502)	(769)	(3,285)	(2,936)	(5,002)
Financial income	55	171	346	401	643
Derivatives	(1,087)	(827)	(273)	(1,334)	(1,033)
Currency and interest rate swaps	(524)	(740)	(225)	(683)	(860)
Others (bunker oil, commodities, etc.)	(563)	(87)	(48)	(651)	(173)
Exchange and monetary gain (losses), net	(1,257)	(1,943)	(944)	(2,200)	(2,940)
Financial result, net	(2,791)	(3,368)	(4,156)	(6,069)	(8,332)

(1) The decrease of the gross interest in 3Q14 to US\$ 105 million reflects the capitalization of interest over assets under construction, which was smaller in 2Q14 due to the start-up of the ERP system

INVESTMENTS

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

In 2014, Vale's capital expenditures totaled US\$ 11.979 billion, comprised of US\$ 7.920 billion in project execution and US\$ 4.059 billion in sustaining. This represents a decrease of US\$ 2.254 billion when compared to the US\$ 14.233 billion spent in 2013(14).

In 4Q14, Vale's capital expenditures amounted to US\$ 3.747 billion, of which US\$ 2.279 billion in project execution and US\$ 1.467 billion in sustaining.

(14) Including US\$ 602 million of capex for VLI in 2013.

Table of Contents**INVESTMENTS BY BUSINESS AREA - 4Q14**

US\$ million	Projects	%	Sustaining capex	%	Total	%
Ferrous minerals	1,523	66.8	802	54.7	2,325	62.1
Coal	510	22.4	46	3.1	555	14.8
Base metals	149	6.5	443	30.2	592	15.8
Fertilizer nutrients	27	1.2	95	6.5	122	3.3
Power generation	56	2.5	3	0.2	59	1.6
Steel	15	0.6			15	0.4
Others			78	5.3	78	2.1
Total	2,279	100.0	1,467	100.0	3,747	100.0

Project Execution

Vale's investments in project execution decreased from US\$ 9.648 billion in 2013(15) to US\$ 7.920 billion in 2014. This decrease of US\$ 1.728 billion in the period is a result of the completion of several projects. Additionally there were savings from scope optimization, efficient project execution and exchange rates.

Out of Vale's investment of US\$ 2.279 billion in 4Q14, ferrous minerals accounted for about 67% of the total and base metals and coal accounted for 29% of the total.

PROJECT EXECUTION BY BUSINESS AREA

US\$ million	4Q14	3Q14	4Q13	2014	%	2013	%
Ferrous minerals	1,523	1,424	1,367	4,836	61.1	4,926	51.1
Coal	510	677	514	2,184	27.6	1,346	14.0
Base metals	149	77	319	462	5.8	1,718	17.8
Fertilizer nutrients	27	14	86	63	0.8	780	8.1
Logistics services - general cargo			78			353	3.7
Power generation	56	40	72	155	2.0	209	2.2
Steel	15	11	11	222	2.8	315	3.3
Total	2,279	2,243	2,447	7,920	100.0	9,648	100.0

Ferrous minerals

About 92% of the US\$ 1.523 billion invested in ferrous minerals in 4Q14 relates to growth initiatives in iron ore, namely the: (i) Carajás and related infrastructure expansion (US\$ 1.054 billion); (ii) Itabirito projects (US\$ 258 million); and (iii) global distribution network (US\$ 94 million), mainly related to the distribution center in Malaysia.

S11D (including mine, plant and associated logistics – CLN S11D) is advancing as planned and reached 42% of combined physical progress in 4Q14. During the quarter, Vale initiated the electromechanical assembly of the mine and of the long distance conveyor belts and received all the electro-centers for the truckless system. In the logistics infrastructure, 9 out of the 48 duplication segments of the railway were completed in the year. The off-shore berth reached 43% physical progress and the railway spur which links the new S11D mine to the Estrada de Ferro Carajás (EFC) reached 45% completion. When completed, the rail spur with an extension of 101 km, will enable the transportation of all iron ore produced at S11D. The project start-up is scheduled for 2H16.

Capital expenditures for the Itabiritos projects in 4Q14 totaled US\$ 258 million. In the Cauê Itabiritos project, the civil works for the waste thickener were concluded and the grinding substation commissioned.

The Conceição Itabiritos II project achieved physical progress of 94%, initiated testing on the hematite circuit and concluded commissioning and energizing of the secondary and tertiary crushing substations of the hematite. Tie-ins are scheduled for 1Q15 and the start-up for 2Q15.

(15) Including US\$ 353 million of capex for VLI in 2013.

Table of Contents

The Vargem Grande project initiated the ramp-up of the iron ore processing plant in 4Q14 and will increase actual production by 10 Mtpy.

Coal

In 4Q14, Vale invested US\$ 115 million in the Moatize II project and US\$ 385 million in its associated logistics infra-structure, the Nacala Corridor.

Moatize II completed 79% physical progress, received the first train from the Nacala corridor in the rail loop and concluded the manufacture of the boiler and the structure of the conveyor belts.

In 4Q14 Vale completed the greenfield and the brownfield sections of the railway and successfully transported the first coal cargo all the way from Moatize to Nacala-à-Velha Port. Brownfield section 7, extending for about 500 kilometers, is operational but is still being upgraded. The upgrade of the brownfield sections is scheduled for completion by 3Q15.

All the major licenses required for the development of our projects below are in place.

DESCRIPTION AND STATUS OF MAIN PROJECTS

Project	Description	Capacity	Status
		Mtpy	
Ferrous minerals projects			
Carajás Serra Sul S11D	<ul style="list-style-type: none"> • Development of a mine and processing plant, located in the Southern range of Carajás, Pará, Brazil 	90	<ul style="list-style-type: none"> • All electro-centers of the truckless system received on site • Transportation of the modules for the plant area ongoing • Electromechanical assembly services of the mine and the long distance conveyor belts initiated
CLN S11D	<ul style="list-style-type: none"> • Duplication of 570 km railway, with construction of rail spur of 101 km • Acquisition of wagons, locomotives, and onshore and offshore expansions at PDM 	230 (80)(a)	<ul style="list-style-type: none"> • Foundation work on the port expansion ongoing pile driving in the off-shore north berth 43% completed

	maritime terminal		<ul style="list-style-type: none"> • Onshore expansion 9 of the 48 duplication segments of the railroad delivered in 2014 • Railway spur reached 45% physical progress
Conceição Itabiritos II	<ul style="list-style-type: none"> • Adaptation of the existing plant to process lower grade itabirites from the Conceição mine, located in the Southeastern System, Minas Gerais, Brazil 	19 (0)(a)	<ul style="list-style-type: none"> • Commissioning and energizing of the secondary and tertiary crushing substations of the hematite concluded • Testing on the hematite circuit initiated
Cauê Itabiritos	<ul style="list-style-type: none"> • Adaptation of the plant to process low-grade itabirites from the Minas do Meio, located in the Southeastern System, Minas Gerais, Brazil 	24 (4)(a)	<ul style="list-style-type: none"> • Civil construction works for the waste thickener concluded • Commissioning of the grinding substation concluded
CSP(b)	<ul style="list-style-type: none"> • Development of a steel slab plant in partnership with Dongkuk and Posco, located in Ceará, Brazil. 	1.5	<ul style="list-style-type: none"> • Ongoing steel structure assembly • Ongoing rail assembly

(a) Net additional capacity

(b) Relative to Vale's stake in the project

Table of Contents

Project	Description	Capacity Mtpy	Status
Coal projects			
Moatize II	<ul style="list-style-type: none"> New pit and duplication of the Moatize CHPP, as well as all related infrastructure, located in Tete, Mozambique 	11	<ul style="list-style-type: none"> First train from the Nacala corridor in the rail loop received Manufacture of the boiler and structure of the conveyor belts concluded
Nacala corridor	<ul style="list-style-type: none"> Railway and port infrastructure connecting the Moatize site to the Nacala-à-Velha maritime terminal, located in Nacala, Mozambique 	18	<ul style="list-style-type: none"> First train loaded with coal traveled through the corridor and was unloaded in the Nacala Port

PROGRESS INDICATORS(16)

Project	Capacity Mtpy	Estimated start-up	Executed capex US\$ million		Estimated capex US\$ million		Physical progress
			2014	Total	2015	Total	
Ferrous minerals projects							
Carajás Serra Sul S11D	90	2H16	973	3,492	1,321	6,878(a)	56%
CLN S11D	230(80)(c)	1H14 to 2H18	1,559	2,653	2,375	9,484(b)	32%
Conceição Itabiritos II	19(0)(c)	1H15	228	863	179	1,189	94%
Cauê Itabiritos	24(4)(c)	2H15	346	686	350	1,504	78%
CSP(d)	1.5	2H15	182	1,055	185	2,570	76%

(a) Original capex budget for S11D US\$ 8.089 billion

(b) Original capex budget for CLN S11D US\$ 11.582 billion

(c) Net additional capacity

(d) Relative to Vale's stake in the project

Project	Capacity Mtpy	Estimated start-up	Executed capex US\$ million		Estimated capex US\$ million		Physical progress
			2014	Total	2015	Total	
Coal projects							
Moatize II	11	2H15	570	1,384	629	2,068	79%
Nacala corridor(a)	18	2H14	1,584	2,892	648	4,444	82%

(a) The greenfield sections of the project started up but there are some brownfield sections still being upgraded.

SUSTAINING CAPEX

Sustaining capital expenditures amounted to US\$ 4.059 billion in 2014, 11% lower than in 2013(17). On a quarter to quarter basis, Vale's investment increased due to seasonality, however the decrease year over year is representative

(16) In this table we do not include pre-operating expenses in the estimated capex for the year, although these expenses are included in the total estimated capex column, in line with our Board of Directors approval process. Moreover, our estimated capex for the year is only revised once a year.

(17) Including US\$ 249 million of capex for VLI in 2013

Table of Contents

of our focus on maintaining discipline on capital allocation. Vale invested US\$ 1.467 billion in 4Q14, of which ferrous minerals accounted for 60% and base metals 30% of the total.

Sustaining capital expenditures for ferrous minerals included: (i) replacement and acquisition of new equipment (US\$ 153 million), (ii) expansion of tailing dams (US\$ 125 million), (iii) operational enhancement (US\$ 63 million) and (iv) improvement in the current standards of health and safety and environmental protection (US\$ 93 million). Maintenance of railways and ports serving our mining operations in Brazil totaled US\$ 203 million.

Sustaining capex in the base metals operations was mainly dedicated to: (i) operations (US\$ 342 million), (ii) expansion of tailing dams (US\$ 31 million) and (iii) improvement in the current standards of health and safety and environmental protection (US\$ 41 million).

In 4Q14, investments in corporate social responsibility reached US\$ 71 million, US\$ 58 million destined for environmental protection and conservation and US\$ 13 million for social projects.

SUSTAINING CAPEX BY TYPE - 4Q14

US\$ million	Ferrous Minerals	Coal	Base Metals	Fertilizer	TOTAL
Operations	431	29	342	66	869
Waste dumps and tailing dams	125		31	3	160
Health and Safety	136		17	17	170
CSR - Corporate Social Responsibility	41	3	25	2	71
Administrative & Others	151	14	28	5	197
Total	883	46	443	95	1,467

SUSTAINING CAPEX BY BUSINESS AREA

US\$ million	4Q14	3Q14	4Q13	2014	%	2013	%
Ferrous minerals	802	511	630	2,248	55.4	2,224	48.5
Coal	46	36	68	153	3.8	165	3.6
Base metals	443	241	451	1,128	27.8	1,309	28.5
Fertilizer nutrients	95	80	120	258	6.4	378	8.2
Logistics services - general cargo			45			249	5.4
Power generation	3	1	4	5	0.1	6	0.1
Others	78	66	75	267	6.6	255	5.6
Total	1,467	933	1,393	4,059	100.0	4,585	100.0

PORTFOLIO MANAGEMENT

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

In 4Q14, Vale's board of directors approved the merger of Vale's wholly-owned subsidiaries Sociedade de Mineração Constelação de Apolo S.A. and Vale Mina do Azul S.A. with the purpose of simplifying its corporate structure.

Vale concluded the transaction of 44.25% of Fosbrasil's total capital, a producer of purified phosphoric acid in Cajati, São Paulo to ICL Brasil Ltda (ICL) after the completion of precedent conditions, including the approval of the operation by the *Conselho Administrativo de Defesa Econômica* (CADE).

In December 2014, we entered into an investment agreement with Mitsui, through which we will reduce our participation in the Moatize mine to 81% from 95%, and in the Nacala Logistic Corridor to approximately 35%, upon completion of the transaction. The deal will allow us to reduce our direct investment needs in both projects and receive cash back from our investments amounting to US\$ 3.7 billion. The final amount is subject to the size of a project finance under discussion.

DEBT INDICATORS

Vale maintained a healthy balance sheet with low leverage, high interest coverage, long average maturity and low cost.

Table of Contents

Gross debt was US\$ 28.807 billion as of December 31, 2014, with a decrease of US\$ 559 million from the US\$ 29.366 billion as of September 30, 2014, and a decrease of US\$ 848 million from the US\$ 29.655 billion as of December 31, 2013. Our cash position was US\$ 4.122 billion and net debt US\$ 24.685 billion as of December 31, 2014.

After interest and currency swaps, Vale's gross debt on December 31, 2014, was composed of 35% of floating interest rates and 65% of fixed interest rate-linked debt, and 96% of our debt was denominated in US dollars.

In 2014 we repurchased US\$ 300 million of Vale Inco's bonds due in 2015. Moreover, as of January 2015, we have over US\$ 9 billion in available and committed credit lines while only US\$ 982 million will be maturing throughout the year.

Average debt maturity remained practically stable at 9.1 years. The average cost of debt, after the above mentioned hedge transactions, increased slightly to 4.54% per annum, against 4.50% on September 30, 2014.

Interest coverage, measured by LTM(18) adjusted EBITDA/LTM interest payment ratio, was 8.6x against 11.1x on September 30, 2014.

Debt leverage, measured by gross debt/LTM adjusted EBITDA, was 2.2x as of December 31, 2014. The gross debt/enterprise value (EV) increased to 43.8% on December 31, 2014, against 38.6% in the previous quarter, due to the fall in Vale's market capitalization(19).

DEBT INDICATORS

US\$ million	4Q14	3Q14	4Q13
Total debt	28,807	29,366	29,655
Net debt	24,685	21,034	24,331
Total debt / LTM adjusted EBITDA (x)	2.2	1.6	1.3
LTM adjusted EBITDA / LTM interest expenses (x)	8.6	11.1	14.7
Total debt / EV (%)	43.8	38.6	28.6

PERFORMANCE OF THE BUSINESS SEGMENTS

In 2014, the share of ferrous minerals business in adjusted EBITDA decreased to 84.8% from 95.5% in 2013, while base metals business improved to 18.9% from 7.3% in the previous year and fertilizers business improved to 2.1% from a negative contribution of -0.2% in 2013. Coal business's contribution went from -2.0% in 2013 to -5.0% in 2014.

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

In 4Q14, the ferrous minerals business contributed with 77.8% to total adjusted EBITDA, followed by the base metals business which contributed with 26.6% to total adjusted EBITDA. The fertilizer business's adjusted EBITDA represented 3.4% of the total, while the coal business contributed negatively, with -9.3% of total adjusted EBITDA.

(18) LTM = last twelve months

(19) Market capitalization information based on data from Bloomberg on December 31st, 2014.

Table of Contents**SEGMENT INFORMATION 2014, as per footnote of financial statements**

US\$ million	Gross operating revenues	Net operating revenues	Cost(1)	SG&A and other expenses(1)	R&D(1)	Pre operating & stoppage(1)	Dividends	Adj. EBITDA(2)
Ferrous minerals	26,140	25,697	(13,063)	(1,289)	(329)	(221)	526	11,321
Iron ore fines	19,439	19,301	(9,532)	(1,258)	(319)	(160)	44	8,076
ROM	233	215	(70)					145
Pellets	5,424	5,263	(2,705)	(21)		(38)	482	2,981
Ferrous alloys and manganese	444	392	(261)	(13)		(23)		95
Others ferrous	600	526	(495)	3	(10)			24
Coal	739	739	(1,071)	(309)	(18)	(38)	28	(669)
Base metals operations	7,694	7,692	(4,587)	89	(143)	(530)		2,521
Nickel(3)	6,242	6,241	(3,710)	101	(138)	(514)		1,980
Copper(4)	1,452	1,451	(877)	(12)	(5)	(16)		541
Fertilizer nutrients	2,585	2,415	(1,885)	(95)	(72)	(85)		278
Others	1,078	996	(601)	(329)	(172)	(6)	14	(98)
Total	38,236	37,539	(21,207)	(1,933)	(734)	(880)	568	13,353

(1) Excluding depreciation and amortization

(2) Excluding non-recurring effects

(3) Including copper and by products from our nickel operations

(4) Including by products from our copper operations

SEGMENT INFORMATION 4Q14, as per footnote of financial statements

US\$ million	Gross operating revenues	Net operating revenues	Cost(1)	SG&A and other expenses(1)	R&D(1)	Pre operating & stoppage(1)	Dividends	Adj. EBITDA(2)
Ferrous minerals	6,213	6,116	(3,792)	(504)	(117)	(48)	47	1,702
Iron ore fines	4,593	4,568	(2,831)	(510)	(112)	(40)	20	1,095
ROM	42	42	(20)					22
Pellets	1,308	1,270	(775)	7		(3)	27	526
Ferrous alloys and manganese	143	131	(77)	1		(5)		50
Others ferrous	127	105	(89)	(2)	(5)			9
Coal	201	201	(249)	(164)	(10)	(10)	28	(204)
Base metals operations	1,948	1,953	(1,205)	15	(45)	(136)		582
Nickel(3)	1,540	1,540	(943)	32	(43)	(133)		453
Copper(4)	407	413	(262)	(17)	(2)	(3)		129
Fertilizer nutrients	607	569	(411)	(29)	(20)	(34)		75
Others	257	233	(113)	(56)	(43)	(3)	14	32
Total	9,226	9,072	(5,770)	(738)	(235)	(231)	89	2,187

-
- (1) Excluding depreciation and amortization
 - (2) Excluding non-recurring effects
 - (3) Including copper and by products from our nickel operations
 - (4) Including by products from our copper operations

Table of Contents

Ferrous minerals

Iron ore

Annual performance

EBITDA

Adjusted EBITDA of iron ore fines in 2014 was US\$ 8.076 billion, 52.6% lower than in 2013, mainly as a result of lower sales prices which negatively impacted adjusted EBITDA by US\$ 9.210 billion.

Sales Revenues and Volume

Gross sales revenues of iron ore fines, excluding pellets and Run of Mine (ROM), decreased to US\$ 19.439 billion in 2014, 30.9% lower than in 2013. The decrease was a result of lower iron ore sales prices (US\$ 9.210 billion), which were only partially offset by the sales volume increase, which contributed with US\$ 542 million to sales revenues when compared to 2013.

The main factors that contributed to the increase in sales volumes of iron ore fines from the 251.0 Mt in 2013 to 255.9 Mt in 2014 were the annual record production of iron ore (319.2 Mt) and the higher acquisition of iron ore from third parties of 12.2 Mt. ROM sales totaled 14.1 Mt in 2014.

The average realized price of iron ore was US\$ 75.97 per metric ton in 2014, significantly lower than the US\$ 112.05 in 2013.

Cost and expenses

Iron ore fines costs totaled US\$ 10.867 billion (or US\$ 9.532 billion net of depreciation) in 2014 against US\$ 10.309 billion in 2013, mostly as a result of higher volumes (US\$ 483 million).

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

Total cash cost at the port (mine, plant, railroad and port, after royalties) was US\$ 5.716 billion. Cash cost was calculated after deducting from COGS iron ore freight costs of US\$ 3.325 billion, depreciation of US\$ 1.334 billion, iron ore acquired from third parties of US\$ 443 million and one-off effects of US\$ 48 million. Cash cost per metric ton in 2014 was US\$ 23.5/t, slightly higher than the US\$ 23.3/t in 2013.

SG&A(20) and other expenses decreased to US\$ 1.258 billion, 0.2% lower than in 2013, despite the one-off effects of US\$ 197 million in other expenses.

Pre-operational expenses(20) decreased to US\$ 160 million, 34.4% lower than in 2013 as a result of the start-up of the Plant 2 and CLN projects in Carajás in 2013.

Despite challenging market conditions our adjusted EBITDA margin for iron ore fines (excluding ROM and third party ores) was US\$ 31.8 /t in 2014.

Quarterly performance

EBITDA

Adjusted EBITDA for iron ore fines in 4Q14 was US\$ 1.095 billion, US\$ 433 million lower than the US\$ 1.528 billion achieved in 3Q14, mainly due to the decrease in sales prices (US\$ 478 million) and the impact of one-off charges on costs (US\$ 48 million) and on expenses (US\$ 197 million).

These one-off effects for costs refer to: (i) iron ore inventory adjustments (US\$ 22 million), (ii) loss on iron ore inventory at Vale International resulting from foreign exchange variation (US\$ 20 million), and (iii) anticipation of overburden removal in preparation for production volume increases at the N4WS mine in Carajás (US\$ 6 million).

(20) Net of depreciation.

Table of Contents

These one-off effects for expenses refer to: (i) the write-down of ICMS tax credits (US\$ 90 million) and (ii) the provisions for current and long term environmental obligations (US\$ 107 million).

Sales Revenues and Volume

Gross sales revenues of iron ore fines in 4Q14 were US\$ 4.593 billion, 7.1% higher than in 3Q14 due to higher sales volumes. ROM sales revenues in 4Q14 were US\$ 42 million.

Sales volume of iron ore fines reached 74.6 Mt in 4Q14, 18% higher than in 3Q14 and the highest since 3Q08. ROM sales accounted for a total of 3.6 Mt in 4Q14.

Iron ore own production, excluding Samarco's attributable production and third party ore in 4Q14, was 83.0 Mt, a quarterly production record for a fourth quarter and 1.7 Mt higher than in 4Q13. The good operational performance was supported by the ramp-ups of Plant 2 in Carajás and of Conceição Itabiritos in the Southeastern System.

Total iron ore available for sale was 78.2 Mt after adjusting the 83.0Mt quarterly production for the (i) acquisition of 3.3 Mt of iron ore from third parties, (ii) use of 4.8 Mt of inventories and (iii) the deduction of 12.9 Mt of iron ore fines used for the production of pellets. After deducting sales of ROM of 3.6 Mt, total iron ore fines sales amounted to 74.6 Mt.

On a CFR basis, sales of iron ore fines increased from 36.3 Mt in 3Q14 to 47.9 Mt in 4Q14, representing 64% of all iron ore fines sales in 4Q14. The increase was mainly due to higher sales to China, which are mostly negotiated on a CFR basis.

Realized Prices

Iron ore sales in 4Q14 were distributed across three pricing systems: (i) 50% based on the current quarter, monthly and daily spot prices, including provisional price sales that were settled within the quarter; (ii) 37% based on provisional prices with price settlement based on the market price defined on the delivery date, in which case prices had not yet been settled at the end of the quarter; and (iii) 13% linked to past prices (quarter lagged).

Vale's average realized price for iron ore fines (ex-ROM) decreased by US\$ 6.4/t from US\$ 68.0 per metric ton in 3Q14 to US\$ 61.6 in 4Q14. This US\$ 6.4/t decrease was lower than the US\$ 15.9/t decrease in the average Platts IODEX 62% which came from US\$ 90.2 per dry metric ton (CFR China) in 3Q14 down to US\$ 74.3 in 4Q14.

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

The main reasons for the relatively better performance in Vale's realized price versus the average Platts IODEX in 4Q14 was the lower impact of the provisional pricing system compared to 3Q14 and the increase in CFR sales in the mix.

In 4Q14, iron ore sales of 27.4 Mt, or 37% of Vale's sales mix, were recorded under the provisional pricing system, which was set at the end of 4Q14 at US\$ 72.0/t(21). The final prices of these sales and the required adjustment to sales revenues will be determined and recorded in 1Q15.

Price realization was impacted in 4Q14 as follows:

(i) Provisional prices set at the end of 3Q14 at US\$ 77.8/t, which were later adjusted based on the price of delivery in 4Q14, negatively impacted prices in 4Q14 by US\$ 0.5/t compared to a negative of US\$ 1.4/t in 3Q14.

(ii) Provisional prices set at the end of 4Q14 at US\$ 72.0/t vs. the IODEX average of US\$ 74.3/t in 4Q14, negatively impacted prices in 4Q14 by US\$ 0.8/t compared to a negative impact of US\$ 3.8/t in 3Q14.

(iii) Quarter-lagged contracts priced at US\$ 93.6/t based on the average prices for Jun-Jul-Aug, positively impacted prices in 4Q14 by US\$ 2.3/t compared to a positive impact of US\$ 2.4/t in 3Q14.

Higher CFR sales and the reduction of bunker oil prices positively impacted prices in 4Q14 by US\$ 2.4/t compared to a positive impact of US\$ 0.7/t in 3Q14.

(21) The reference for determining the provisional price is SBB Steel Markets Daily forward curve IODEX 62% Fe CFR North China OTC, December 30th, 2014 page 5.

Table of Contents

Bunker oil prices impacted FOB sales prices as the decrease in bunker oil prices contributed to a lower freight deduction to the IODEX CFR reference price used to determine the FOB price.

Costs and Expenses

In 4Q14 iron ore fines costs were US\$ 3.194 billion (or US\$ 2.831 billion net of depreciation). After adjusting for the effects of higher volumes (US\$ 552 million) and exchange rates variations (-US\$ 187 million), costs increased by US\$ 54 million when compared to 3Q14. The increase was mainly due to higher maintenance costs(22) (US\$ 106 million) and personnel (US\$ 70 million) which were partly offset by a reduction in the cost of acquisition of third party ores (-US\$ 37 million), lower depreciation (-US\$ 35 million) and lower costs with outsourced services and materials (-US\$ 24 million). One-off effects of: (i) iron ore inventory adjustments, (ii) loss on iron ore inventory at Vale International resulting from foreign exchange variation and (iii) anticipation of overburden removal in preparation for production volume increases at the N4WS mine in Carajás impacted our costs by US\$ 48 million.

The increase in maintenance costs was primarily due to anticipation of maintenance services and elimination of maintenance backlogs to ensure that assets can be fully utilized in preparation for production and transportation volume increases in our systems, especially at the N4WS mine in Carajás. This increase in maintenance costs has already been reversed in January 2015 figures. The increase in personnel costs is associated with the two-year labor agreement settled with our employees in Brazil.

Oil costs in the form of diesel for our operations amounted to US\$ 141 million in 4Q14 against US\$ 123 million in 3Q14. After adjusting for higher volumes (US\$ 20 million) and exchange rates variations (-US\$ 13 million), costs increased by US\$ 11 million when compared to 3Q14. Falling oil prices had a limited positive impact on our fuel costs, since prices of diesel in Brazil are not directly correlated to international oil prices.

Maritime freight costs, which are fully accrued as cost of goods sold, totaled US\$ 1.037 billion in 4Q14, an increase of US\$ 226 million when compared to 3Q14 as a result of (i) the higher share of CFR shipments and (ii) the higher use of indirect routes via FTS and Teluk Rubiah. The reduction in bunker oil prices partially offset the cost increases mentioned above. Vale's iron ore unit freight cost per metric ton was US\$ 21.7/t in 4Q14 when compared to US\$ 22.3/t in 3Q14. For further details, please refer to *The Impact of Freight on Vale's Financial Performance* box on page 24.

The cost of ore acquired from third parties amounted to US\$ 89 million against US\$ 107 million in 3Q14. Purchases of iron ore totaled 3.2 Mt, 0.4 Mt higher than in 3Q14. On a per-ton basis, cost of ore acquired reduced from US\$ 36.5/t in 3Q14 to US\$ 27.7/t in 4Q14.

Other operational costs amounted to US\$ 371 million, decreasing from the US\$ 379 million in 3Q14. In 4Q14, the TFRM(23) was US\$ 55 million compared to US\$ 54 million in 3Q14 and CFEM, Brazil's federal mining royalty, was US\$ 68 million compared to US\$ 77 million in 3Q14.

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

Total cash cost at the port (mine, plant, railroad and port, after royalties) was US\$ 1.657 billion after deducting depreciation of US\$ 363 million, iron ore acquired from third parties of US\$ 89 million, iron ore freight costs of US\$ 1.037 billion and one-off effects of US\$ 48 million. These one-off effects refer to: (i) iron ore inventory adjustments, (ii) loss on iron ore inventory at Vale International resulting from foreign exchange variation, and (iii) anticipation of overburden removal in preparation for production volume increases at the N4WS mine in Carajás.

Cash cost⁽²⁴⁾ per metric ton of iron ore fines was US\$ 23.2 ⁽²⁵⁾ in 4Q14 vs. US\$ 24.7 in 3Q14, a reduction of US\$ 1.5 /t. In addition, January 2015 figures already show a reversal of the backlog maintenance services and costs fell further by more than US\$ 1/t, even before the effects of the January 2015 depreciation of the Brazilian Real.

(22) As of the third quarter of 2014 maintenance costs have been reported encompassing outsourced services, materials and personnel costs related to maintenance works.

(23) TRFM - State of Minas Gerais and state of Pará tariff for control, monitoring, and supervision of activities of research, exploration, production, profiting from mineral resources

(24) Excluding ROM and iron ore from third parties.

(25) As per segment reporting notes to the financial statements: US\$ 2.831 billion in costs net of depreciation and amortization, less US\$ 1.037 billion in iron ore freight, US\$ 89 million in iron ore acquired from third parties, and US\$ 48 million in negative one-off effects, over iron ore sales of 78.2 Mt less volume acquired from third parties, 3.2 Mt, and ROM volume sold of 3.6 Mt.

Table of Contents

Iron ore expenses, net of depreciation, amounted to US\$ 662 million in 4Q14, increasing from the US\$ 353 million in 3Q14. SG&A and other expenses increased to US\$ 510 million vs. US\$ 212 million in 3Q14 mainly due to the one-off effects of: (i) provisions for current and long term environmental obligations (US\$ 107 million) and (ii) write-down of ICMS tax credits (US\$ 90 million).

Pre-operating expenses and idle capacity for iron ore amounted to US\$ 40 million, against US\$ 63 million in 3Q14. The reduction is mainly due to the ramp up of the Malaysian operations.

Iron ore pellets

Annual performance

Adjusted EBITDA for pellets in 2014 was US\$ 2.981 billion, 27.3% lower than in 2013. The decrease of US\$ 1.118 billion was mainly a result of lower sales prices (US\$ 1.142 billion) and higher costs (US\$ 382 million) which were partially offset by higher sales volumes (US\$ 227 million) and lower expenses (US\$ 193 million).

Gross sales revenues for pellets were US\$ 5.424 billion in 2014, 11.9% lower than in 2013, mainly due to the decrease in sales prices, from US\$ 150.22 per metric ton in 2013 to US\$ 124.17 per metric ton in 2014. Sales prices negatively impacted sales revenues by US\$ 1.139 billion in 2014 in comparison with 2013. Sales volumes increased to 43.682 Mt versus 40.991 Mt in 2013 as a result of the start-up of the Tubarão VIII and the ramp-up of the Oman pellet plants.

Costs for pellets totaled US\$ 2.972 billion in 2014 (or US\$ 2.705 billion net of depreciation). After adjusting for the effects of volumes (US\$ 189 million), costs increased by US\$ 310 million against 2013. This increase is mainly due to higher depreciation cost (US\$ 90 million), higher costs of purchased ore (US\$ 83 million), ramp up of Tubarão VIII pelletizing plant (US\$ 51 million), and due to higher leasing costs (US\$ 199 million), as contracts for the leased pellet plants have price-adjusted fees based on the pellet premiums and production, which both increased in 2014.

Quarterly performance

Adjusted EBITDA for pellets in 4Q14 was US\$ 526 million, compared to the US\$ 832 million in 3Q14. The decrease in dividends received from our non-consolidated affiliated companies (-US\$ 209 million), sales prices (-US\$ 177 million) and higher costs (-US\$ 62 million) were partly offset by higher volumes (US\$ 61 million), exchange rate variations (US\$ 60 million) and lower expenses (US\$ 21 million).

Gross sales revenues for pellets in 4Q14 were US\$ 1.308 billion, slightly lower than the US\$ 1.356 billion in 3Q14. The decrease against the previous quarter was due to lower sales prices of US\$ 103.11 per ton vs. US\$ 117.85/t in 3Q14. Sales revenues were offset by higher sales

volumes of 12.686 Mt vs. 11.506 Mt in 3Q14.

In 4Q14, production reached 11.6 Mt, a new record for a fourth quarter, being 1.7% and 11.8% higher than in 3Q14 and in 4Q13, respectively.

Pellet prices decreased by US\$ 14.75/t, from US\$ 117.85 in 3Q14 to US\$ 103.11 per metric ton in 4Q14, whereas the Platt's IODEX iron ore reference price (CFR China) decreased by US\$ 15.9/t in the quarter. The smoother decline in price realization is a result of changes in the sales mix (blast furnace vs. direct reduction pellets) and lower bunker oil prices, which contributed to a lower freight deduction to the IODEX reference price to determine the FOB pellets price.

CFR sales increased from 3.4 Mt in 3Q14 to 3.8 Mt in 4Q14, representing 30% of pellets sales. On a FOB basis, sales of pellets increased from 8.2 Mt in 3Q14 to 8.9 Mt in 4Q14, representing 70% of all pellets sales.

Pellet costs totaled US\$ 867 million (or US\$ 775 million net of depreciation) in 4Q14. Costs increased by US\$ 80 million when compared to 3Q14 after adjusting for the effects of higher volumes (US\$ 85 million) and exchange rates variations (-US\$ 66 million). This increase is mainly due to higher maintenance costs (US\$ 26 million) and higher depreciation costs (US\$ 19 million). Pre-operating and stoppage expenses for pellets were US\$ 3 million in 4Q14 compared to the US\$ 7 million in the previous quarter.

Table of Contents

EBITDA margins for pellets was US\$ 59.0/t in 2014 and US\$ 41.4/t in 4Q14. EBITDA in 4Q14 was based on a realized price of US\$ 100.1/t and included dividends received from the leased pelletizing plants (US\$ 80 million) in Tubarão. Cash costs include costs of iron ore, transformation costs (energy, labour, etc), lease fees for the pelletizing plants and freight.

PELLETS EBITDA ex-Samarco

	4Q14		2014	
	US\$ million	US\$ / wmt	US\$ million	US\$ / wmt
Gross revenues / realized price	1,308	103.1	5,424	124.2
Net revenues / realized price	1,270	100.1	5,263	120.5
Dividends received (Leased pelletizing plants) ex-Samarco	27	2.1	80.0	1.8
Cash costs (includes Iron ore, leasing, freight, overhead, energy and other)	(775)	(61.1)	(2,705)	(61.9)
Expenses (SG&A, R&D and other)	4	0.3	(59.0)	(1.4)
EBITDA, ex-Samarco	526	41.4	2,579	59.0

Manganese and ferroalloys**Annual performance**

Adjusted EBITDA of manganese and ferroalloys in 2014 was US\$ 95 million, US\$ 64 million lower than in 2013, mainly due to lower prices (US\$ 52 million) and lower volumes (US\$ 39 million) which were partially offset by exchange rates variations (US\$ 26 million) and expenses reductions (US\$ 11 million).

Gross sales revenues for manganese decreased to US\$ 226 million in 2014, down from US\$ 333 million in 2013, due to the effect of lower prices (US\$ 70 million) and lower sales volumes (US\$ 37 million). In 2014, manganese ore production amounted to 2.352 Mt, in line with 2013.

Gross sales revenues for ferroalloys decreased in 2014 to US\$ 218 million from US\$ 239 million in 2013, mainly due to the effect of lower sales volumes (US\$ 42 million) which were partly offset by higher prices (US\$ 21 million). In 2014, the output of ferroalloys was 171,000 t, slightly lower than in 2013.

Quarterly performance

Adjusted EBITDA of manganese ore and ferroalloys in 4Q14 was US\$ 50 million, US\$ 38 million higher than the US\$ 12 million in 3Q14, mainly due to higher sales volumes (US\$ 21 million) and lower costs and expenses (US\$ 14 million).

Gross sales revenues for manganese increased to US\$ 92 million from US\$ 50 million in 3Q14 due to higher sales volumes. In 4Q14, production of manganese ore reached 723,000 t, as against 654,000 t in 3Q14 and 638,000 t in 4Q13.

Gross sales revenues for ferroalloys were US\$ 51 million, increasing from US\$ 47 million in 3Q14, due to higher sales volumes. Ferroalloys production of 41,000 t in 4Q14 was in line with 3Q14.

Market outlook – Iron Ore and Pellets

In 2014, global economic growth was lower than initially expected despite the strengthening of the US economy. World GDP growth continued to be negatively impacted by a weak economic activity in the euro zone and Japan, and by a deceleration in China.

Table of Contents

GDP growth of 7.4% year-on-year in China was only slightly below the Chinese government's growth target. The slowdown in credit growth heavily impacted investment-driven sectors, especially the real estate one, whereas investments in infrastructure partially compensated this drop. Nonetheless the slowdown in the economy negatively impacted commodities demand, particularly demand for iron ore.

Iron ore price dropped by 47% in 2014 as a result of a strong supply in the seaborne market, when demand from China's steel mills was subdued. Lower iron ore prices drove higher cost producers in China and overseas to gradually exit the market. This trend may continue in the short-term and medium-term if the currently challenging market conditions persist leading to a new market equilibrium in the medium to long-term.

China is the world's largest pellet producer with more than 155 Mtpy, of which approximately 80% is owned by integrated steel mills. After mine closures in China, Chinese steel makers started to use more lump as substitute for domestic pellets. As prices of lump increase, demand for local and seaborne pellets is expected to increase as well, supporting high pellet premiums. An increase in Chinese demand and a restrict environmental policy may increase the demand for blast furnace direct charge and significantly impact the current pellets seaborne market of about 125 Mtpy.

Table of Contents

THE IMPACT OF FREIGHT ON VALE'S FINANCIAL PERFORMANCE

Freight rates are impacted by three main variables: (i) supply and demand of vessels, (ii) bunker oil costs and (iii) port disbursements, as explained below:

(i) The short-term supply/demand balance in the shipping market impacts mostly the daily spot hire for vessels (related to spot freight rates), whereas long term chartering contracts are mostly impacted by long-term supply/demand fundamentals as well as the price of building ships and the cost of financing and operating them.

(ii) Bunker oil costs are driven by bunker oil prices, vessels' consumption and transportation routes. Generally, fluctuations in oil prices are the most relevant drivers of bunker oil cost, given the relatively stable mixes of transportation routes and vessel types.

For medium and long term chartering contracts, bunker oil costs are always considered a pass through and, therefore, all these contracts contain a freight rate adjustment based on the variation of the bunker oil prices. In the specific route Tubarão - Qingdao, for instance, each US\$ 100 variation in bunker oil prices results in a variation of about US\$ 2.3/t in the freight costs of a standard Capesize vessel and less for larger vessels such as the Valemaxes, which are more energy efficient.

(iii) Port disbursements are a function of pilots' services costs, tug boats costs, port utilization taxes, anchorage dues, navigation taxes and others, thus being directly impacted by the size of the vessel.

Port disbursements are relatively stable, representing about US\$ 1.1/t for a Capesize vessel on the route Tubarão - Qingdao in 2014.

In Vale's case, the freight costs are not 100% correlated to spot market given that:

(i) Vale has a freight portfolio composed of short term, medium term and long term chartering contracts and its own fleet;

(ii) Freight cost is impacted by changes in route mixes (sales to different geographical areas, direct sales versus sales through distribution centers, etc.);

(iii) Freight cost is also impacted by the time-lag between the fixing date of the spot contract and the recognition of the expenditure in the cost, which is booked at the recording of the sale of the iron ore cargo.

In addition, the cost impact on Vale's freight from bunker oil reductions has an average delay of not less than 30 days, resulting from the time lag between the bunkering date for its own fleet⁽²⁶⁾ or the date established in the chartering contract⁽²⁷⁾ and the recognition of the expenditure in the cost which is booked at the recording of the sale of the iron ore cargo.

Considering all the above mentioned facts and as the most significant reduction in spot freight and bunker oil prices occurred in December 2014, the impact on Vale's freight costs shall be reflected in the coming quarters.

Vale's iron ore revenue is also positively impacted by the reduction in bunker oil prices, according to the same formula referred to in item (ii) of the first paragraph, since the FOB and the domestic sales prices are calculated by deducting the long term freight rate from the IODEX price.

Last but not least, in Vale's specific situation, the total effect of bunker oil prices is further dependent upon the bunker oil hedge taken out by Vale as follows:

(i) The portion of the 2015 hedge related to the bunker oil exposure in the FOB and domestic sales is accounted as financial expenses and is marked-to-market every quarter.

(ii) The hedge for the owned fleet and the chartering contracts' bunker oil exposure is registered as hedge accounting and, therefore, will affect COGS during 2015, according to the actual settlement dates.

(26) In the route Brazil-China, vessels are bunkered in Singapore on their way to Brazil (ballast leg) about 30-35 days prior to loading.

(27) The Singapore bunker oil price, published by Platts, is the standard reference for pricing the bunker oil adjustment in the Brazil-China route. The day of determining the bunker oil price reference varies from contract to contract and, for instance, can be based on the Bill of Lading date, or the sailing date from the discharging port, or the date of the actual bunkering operation, or other.

Table of Contents

IMPACT OF BUNKER OIL PRICES AND HEDGE IN VALE S FINANCIAL PERFORMANCE

Freight Type	Bunker Oil Price Impact	Hedge Accounting	2015 Bunker oil derivative execution (million tons)	Average Strike Price (US\$/t)	Impact of open derivative positions(28) in 2014 P/L statement	Impact of open derivative positions in 2015 P/L statement
Owned Fleet & Long term charter	Impact with time lag	Yes	1.950 (50% of the total exposure)	509	Nil	COGS will be stable and defined at the strike price(29).
Spot Charter	Already captured in the spot freight rate	Yes(30)				
FOB	According to the applicable pricing rule(31)	No	2.205 (60% of the total exposure)	483	-US\$ 363 million (marked-to-market at US\$ 318/t in Financial Expenses)	Financial Expenses will vary according to subsequent mark-to-market

More specifically, the impact of the outstanding hedge positions(28) in Vale s results can be summarized as follows:

(i) Impact on the financial statements related to the trades under Vale s hedge accounting program:

a. In 2014: open hedge positions(28) had no impact in 2014 P&L statement

b. In 2015: hedging results (US\$) will be recognized in costs on a monthly basis according to the settlement of the derivative contract and can be estimated by the following proxy(32): 1,950,000 t * (Actual bunker oil price - US\$ 509 / t) / 12

(ii) Impact on the financial statements related to the trades that are not under Vale s hedge accounting program:

a. In 2014: a negative impact of US\$ 363 million already recognized in 2014 financial expenses by the mark-to-market of the outstanding derivative positions(28), according to the following formula: 2,205,000 t * (US\$ 318 / t(33) - US\$ 483 / t)

b. In 2015: financial expenses will be impacted by the variations in the mark-to-market of the outstanding derivative positions by the end of each quarter, according to the following formula: derivative tonnage * (average of the forward curve price for the quarter - US\$ 318 / t for 1Q15(34))

(28) At December 31st, 2014

(29) Variations in the actual bunker oil prices will be offset by the hedge

(30) Vale hedges only the portion of spot freight costs associated with bunker oil consumption. If supply and demand yield a variation in spot freight rates beyond the effect of bunker oil prices, Vale is 100% exposed to such a variation in its spot charters.

(31) The bunker oil price reference used in the pricing formulas for the FOB contracts follows the same time period as the pricing systems associated with the respective sales.

(32) The actual settlement is based on the specific conditions (executed volumes and prices) of each derivative instrument. The above referred proxy assumes the average price of these instruments and evenly spread bunker tonnage throughout the year.

(33) Average of the monthly forward curve as stated in Vale's Financial Statement, under note 24 - Additional information about derivatives financial instruments .

(34) In 4Q14, the average reference price used for marking-to-market was US\$ 318/t, which will be the new reference for marking-to-market the open hedge positions at the end of 1Q15. For calculating the mark-to-market from 2Q15 onwards it shall be considered the price used as a reference in the previous quarter.

Table of Contents**IRON ORE COGS - 2013 x 2014**

US\$ million	Variance drivers				Total Variation 2013 x 2014	2014
	2013	Volume	Exchange Rate	Others		
Personnel	972	17	(79)	(2)	(64)	908
Outsourced services and materials	1,800	32	(140)	(24)	(133)	1,667
Energy (electricity, fuel & gas)	521	9	(42)	89	56	578
Acquisition of products	405	8		30	38	443
Maintenance(1)	886	16	(74)	439	380	1,267
Freight	2,974	351			351	3,325
Others	1,509	27	(106)	(86)	(165)	1,345
Total costs before depreciation and amortization	9,067	461	(441)	446	465	9,532
Depreciation	1,242	23	(74)	144	93	1,334
Total	10,309	483	(516)	590	558	10,867

(1) As of the third quarter 2014, we are reporting a new COGS item, maintenance costs, due to the introduction of the ERP system. Maintenance costs encompass part of outsourced services, materials and personnel costs related to maintenance work. The comparison of 2013 and 2014 COGS items, especially maintenance and personnel, may not offer appropriate conclusions.

IRON ORE COGS - 3Q14 x 4Q14

US\$ million	Variance drivers				Total Variation 3Q14 x 4Q14	4Q14
	3Q14	Volume	Exchange Rate	Others		
Personnel	201	33	(21)	70	82	283
Outsourced services and materials	420	70	(38)	(24)	8	428
Energy (electricity, fuel & gas)	150	25	(16)	9	18	167
Acquisition of products	107	20		(37)	(18)	89
Maintenance	335	54	(40)	106	120	455
Freight	811	225			225	1,037
Others	379	63	(36)	(34)	(8)	371
Total costs before depreciation and amortization	2,403	490	(152)	89	427	2,831
Depreciation	372	62	(36)	(35)	(9)	363
Total	2,775	552	(187)	54	418	3,194

Table of Contents**IRON ORE CASH COST**

	4Q14	3Q14	4Q13	2014	2013
Costs (US\$ million)					
COGS, less depreciation and amortization	2,831	2,403	2,614	9,532	9,067
Costs of ore acquired from third parties	89	107	128	443	405
Maritime freight costs	1,037	811	974	3,325	2,974
One-off items	48		79	48	79
FOB at port costs (ex-ROM and ex-third party ores)	1,657	1,485	1,433	5,716	5,609
Royalties	123	131	185	638	667
FOB at port costs (ex-ROM, ex-third party ores and ex-royalties)	1,534	1,355	1,248	5,079	4,942
Volumes (Mt)					
Total iron ore volume sold	78.2	66.6	73.6	270.0	264.6
Volume acquired from third parties	3.2	2.9	3.8	12.2	10.6
Total ROM volume sold	3.6	3.5	4.2	14.1	13.6
Volume sold of Vale's own ore (ex-ROM)	71.4	60.1	65.6	243.7	240.4
Volume CFR (Mt)	47.9	36.3	37.9	146.9	127.7
Vale's iron ore cash cost (ex-ROM, ex-royalties), FOB (US\$/t)	21.5	22.5	19.0	20.8	20.6
Vale's iron ore cash cost (Ex-ROM), FOB (US\$/t)	23.2	24.7	21.9	23.5	23.3
Vale's iron ore unit freight cost (US\$/t)	21.7	22.3	25.7	22.6	23.3

FERROUS MINERALS BUSINESS PERFORMANCE**GROSS OPERATING REVENUE BY PRODUCT**

US\$ million	4Q14	3Q14	4Q13	2014	2013
Iron ore fines	4,593	4,287	8,237	19,439	28,129
ROM	42	54	77	233	300
Pellets	1,308	1,356	1,677	5,424	6,158
Manganese ore	92	50	99	226	333
Ferroalloys	51	47	62	218	239
Others	127	141	25	600	113
Total	6,213	5,935	10,177	26,140	35,271

AVERAGE SALE PRICE

US\$/metric ton	4Q14	3Q14	4Q13	2014	2013
Iron ore - Platts's 62% IODEX(1)	74.28	90.21	134.60	96.87	135.19
Iron ore - Metal Bulletin 65% index	82.90	99.29	n/a	105.82	n/a
Iron ore fines	61.57	68.02	118.77	75.97	112.05
ROM	11.82	15.24	18.25	16.55	22.06

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

Pellets	103.11	117.85	150.17	124.17	150.22
Manganese ore	111.11	116.01	152.54	120.28	157.37
Ferrous alloys	1,416.67	1,424.24	1,265.31	1,453.33	1,303.92

VOLUME SOLD

000 metric tons	4Q14	3Q14	4Q13	2014	2013
Iron ore fines	74,603	63,025	69,352	255,877	251,029
ROM	3,552	3,544	4,245	14,075	13,602
Pellets	12,686	11,506	11,167	43,682	40,991
Manganese ore	828	431	649	1,879	2,115
Ferrous alloys	36	33	49	150	183

Table of Contents**VOLUME SOLD BY DESTINATION IRON ORE AND PELLETS**

000 metric tons	4Q14	3Q14	4Q13	2014	%	2013	%
Americas	11,590	11,559	11,058	44,071	14.1	41,715	13.6
Brazil	10,078	9,929	9,764	37,623	12.0	36,084	11.8
Others	1,512	1,630	1,294	6,448	2.1	5,631	1.8
Asia	62,563	51,093	55,687	208,536	66.5	198,406	64.9
China	46,411	38,764	40,874	156,692	50.0	145,847	47.7
Japan	7,505	6,556	8,772	27,229	8.7	31,191	10.2
Others	8,648	5,773	6,041	24,615	7.8	21,368	7.0
Europe	13,209	12,353	14,872	49,042	15.6	55,012	18.0
Germany	4,660	4,909	6,128	19,075	6.1	22,239	7.3
France	2,103	1,337	2,121	6,242	2.0	8,542	2.8
Others	6,446	6,106	6,623	23,725	7.6	24,232	7.9
Middle East	2,337	2,523	2,327	8,694	2.8	7,527	2.5
Rest of the World	1,141	548	820	3,291	1.0	2,962	1.0
Total	90,841	78,075	84,764	313,634	100.0	305,623	100.0

SELECTED FINANCIAL INDICATORS

US\$ million	4Q14	3Q14	4Q13	2014	2013
Net Revenues	6,116	5,823	10,079	25,697	34,792
Costs(2)	(3,792)	(3,288)	(3,416)	(13,063)	(11,849)
Expenses(2)	(504)	(226)	(291)	(1,289)	(1,402)
Pre-operating and stoppage expenses(2)	(48)	(75)	(82)	(221)	(387)
R&D expenses	(117)	(83)	(112)	(329)	(326)
Dividends received	47	260	476	526	715
Adjusted EBITDA	1,702	2,411	6,654	11,321	21,543
Adjusted EBITDA margin for iron ore (US\$/t)	14.84	24.14	75.90	31.85	68.18
Depreciation and amortization	(548)	(534)	(495)	(1,930)	(1,746)
Adjusted EBIT	1,107	1,617	5,683	8,865	19,082
Adjusted EBIT margin (%)	18.1	27.8	56.4	34.5	54.8

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

(2) Net of depreciation and amortization

Base Metals**Annual performance***EBITDA*

Base metals adjusted EBITDA totaled US\$ 2.521 billion in 2014, representing an increase of US\$ 882 million, i.e. 53.8% higher than in 2013. Higher nickel prices and volumes of both nickel and copper more than offset the weaker price scenario for copper in 2014.

Sales revenues and volume

Gross sales from base metals and their by-products totaled US\$ 7.694 billion in 2014 against US\$ 7.299 billion in 2013. The increase in revenues was mainly driven by higher shipments of nickel (US\$ 190 million) and copper concentrate from our Brazilian operations (US\$ 135 million) along with higher nickel prices (US\$ 393 million), which were partially offset by lower copper prices (-US\$ 311 million).

Nickel production reached 275,000 t, the highest annual production mark since 2008, driven by record site production at PTVI and the excellent ramp-up of Onça Puma. Copper production supported by Salobras ramp-up reached 379,700 t, 9,700 t higher than in 2013 and a new annual record, despite the sale of Tres Valles which

Table of Contents

accounted for 11,000 t in 2013. Gold production reached the record output of 321,000 troy ounces in 2014, with Salobo contributing 49.8% of this total output.