Vale S.A. Form 6-K April 28, 2016 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

March, 2016

Vale S.A.

Avenida das Américas, No. 700 22640-100 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 x Form 40-F o
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 o No x
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)
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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.
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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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Table of Contents		
Interim Financial Statements		
March 31, 2016		
IFRS		

Filed with the CVM, SEC and HKEx on

April 28, 2016

Vale S.A. Interim Financial Statements

Contents

		Page
Report of independent registered pub	olic accounting firm	3
Condensed Consolidated Income Sta		4
Condensed Consolidated Statement of	of Comprehensive Income	5
Condensed Consolidated Cash Flow	Statement	6
Condensed Consolidated Balance Sh	<u>eet</u>	7
Condensed Consolidated Statement of	of Changes in Equity	8
Selected Notes to the Interim Finance	ial Statements	9
<u>1.</u>	Corporate information	9
1. 2. 3.	Basis for the preparation of the interim financial statements	9
<u>3.</u>	Information by business segment and by geographic area	10
<u>4.</u>	Relevant event	14
4. 5. 6. 7. 8. 9.	Assets held for sale	15
<u>6.</u>	Acquisitions and divestitures	15
<u>7.</u>	Cash and cash equivalents	15
<u>8.</u>	Accounts receivable	16
<u>9.</u>	<u>Inventories</u>	16
<u>10.</u>	<u>Investments in associates and joint ventures</u>	16
<u>11.</u>	<u>Intangibles</u>	17
11. 12. 13. 14. 15. 16. 17. 18. 19. 20.	Property, plant and equipment	17
<u>13.</u>	Loans and borrowings	18
<u>14.</u>	<u>Litigation</u>	19
<u>15.</u>	Income taxes	21
<u>16.</u>	Employee benefits obligations	22
<u>17.</u>	Financial instruments classification	22
<u>18.</u>	Fair value estimate	23
<u>19.</u>	<u>Derivative financial instruments</u>	23
<u>20.</u>	Stockholders equity	32
21. 22. 23.	Costs and expenses by nature	33
<u>22.</u>	Financial results	34
<u>23.</u>	<u>Deferred revenue - Gold stream</u>	34
<u>24.</u>	Commitments	34
<u>25.</u>	Related parties	35
Members of the Board of Directors,	Fiscal Council, Advisory Committees and Executive Officers	37

Table of Contents

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Report of independent registered public accounting firm

To the Board of Directors and Stockholders of

Vale S.A.

Rio de Janeiro - RJ

We have reviewed the accompanying condensed consolidated balance sheet of Vale S.A. (the Company) and its subsidiaries as of March 31, 2016 and the related condensed consolidated statements of income (loss), comprehensive income (loss), cash flows and the condensed consolidated statements of changes in stockholders equity for the three-month period ended on March 31, 2016 and 2015. These condensed consolidated financial statements are the responsibility of the Company s management.

We conducted our review in accordance with the standards of the Public Company Accounting Oversight Board (United States). A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an audit opinion.

Based on our review, we are not aware of any material modification that should be made to the condensed consolidated financial statements referred to above for them to be in conformity with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

We have previously audited, in accordance with standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of Vale S.A. and its subsidiaries as of December 31, 2015 and the related consolidated statements of income, comprehensive income, stockholders—equity and cash flows for the year then ended, and in our report dated February 24, 2016, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying condensed consolidated balance sheet as of December 31, 2015, is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived.

KPMG Auditores Independentes

Rio de Janeiro, Brazil

April 27, 2016

3

Condensed Consolidated Income Statement

In millions of United States dollars, except as otherwise stated

	Three-mo	nth period ended March 31	
	Notes	2016	2015
Net operating revenue	3(c)	5,719	6,240
Cost of goods sold and services rendered	21(a)	(4,249)	(5,168)
Gross profit		1,470	1,072
Operating (expenses) income			
Selling and administrative expenses	21(b)	(119)	(195)
Research and evaluation expenses		(60)	(119)
Pre operating and operational stoppage		(102)	(264)
Other operating income (expenses), net	21(c)	(35)	46
		(316)	(532)
Results on measurement or sale of non-current assets	6		193
Operating income		1,154	733
Financial income	22	3,283	2,350
Financial expenses	22	(1,858)	(6,860)
Equity results in associates and joint ventures	10	156	(271)
Results on sale or disposal of investments in associates and joint			
ventures	6		18
Net income (loss) before income taxes		2,735	(4,030)
Income taxes	15		
Current tax		(345)	(70)
Deferred tax		(610)	930
		(955)	860
Net income (loss)		1,780	(3,170)
Income (loss) attributable to noncontrolling interests		4	(52)
Net income (loss) attributable to Vale s stockholders		1,776	(3,118)
Earnings per share attributable to Vale s stockholders:			
Basic and diluted earnings per share:	20(b)		
Preferred share (US\$)		0.34	(0.61)
Common share (US\$)		0.34	(0.61)

The accompanying notes are an integral part of these interim financial statements.

Condensed Consolidated Statement of Comprehensive Income

In millions of United States dollars

	Three-month period en	ded March 31
	2016	2015
Net income (loss)	1,780	(3,170)
Other comprehensive income (loss):		
Items that will not be reclassified subsequently to the income statement		
Cumulative translation adjustments	3,246	(9,494)
Retirement benefit obligations		
Gross balance for the period	(85)	(101)
Effect of taxes	27	50
	(58)	(51)
Total items that will not be reclassified subsequently to the income statement	3,188	(9,545)
Items that may be reclassified subsequently to the income statement		
Cumulative translation adjustments		
Gross balance for the period	(1,601)	4,593
Effect of taxes	(148)	
	(1,749)	4,593
Cash flow hedge		
Gross balance for the period	6	260
Effect of taxes	(1)	
Equity results in associates and joint ventures		(2)
Transfer of realized results to net income, net of taxes	(3)	(145)
	2	113
Total of items that may be reclassified subsequently to the income statement	(1,747)	4,706
Total comprehensive income (loss)	3,221	(8,009)
Comprehensive income (loss) attributable to noncontrolling interests	68	(58)
Comprehensive income (loss) attributable to Vale s stockholders	3,153	(7,951)

The accompanying notes are an integral part of these interim financial statements.

Condensed Consolidated Cash Flow Statement

In millions of United States dollars

	Three-month period e	nded March 31
	2016	2015
Cash flow from operating activities:		
Net income (loss) before income taxes	2,735	(4,030)
Adjustments for:		
Equity results from associates and joint ventures	(156)	271
Results on measurement or sale of non-current assets		(193)
Results on sale or disposal of investments in associates and joint ventures		(18)
Results on disposal of property, plant and equipment and intangibles	9	(215)
Depreciation, amortization and depletion	850	1,035
Financial results, net	(1,425)	4,510
Changes in assets and liabilities:		
Accounts receivable	(1,016)	817
Inventories	(62)	189
Suppliers and contractors	(383)	(387)
Payroll and related charges		(567)
Other taxes assets and liabilities, net	(47)	173
Deferred revenue - Gold stream (note 23)		532
Other assets and liabilities, net	191	(69)
Cash generated from operations	696	2,048
Interest on loans and borrowings paid	(460)	(471)
Derivatives received (paid), net (note 19)	(510)	(657)
Interest on participative stockholders debentures paid		(39)
Income taxes	(146)	(244)
Income taxes - Settlement program	(88)	(106)
Net cash provided by (used in) operating activities	(508)	531
Cash flow from investing activities:		
Financial investments redeemed (invested)	89	145
Loans and advances received (granted)	(3)	(5)
Guarantees and deposits received (granted)	(38)	(26)
Additions to investments	(90)	(10)
Acquisition of subsidiary, net of cash acquired	5	(90)
Additions to property, plant and equipment and intangible (note 3(b))	(1,366)	(2,200)
Dividends and interest on capital received from associates and joint ventures	1	27
Proceeds from disposal of assets and investments	12	107
Proceeds from gold stream transaction (note 23)		368
Net cash used in investing activities	(1,390)	(1,684)
Cash flow from financing activities:		
Loans and borrowings (i)		
Additions	3,200	1,342

Repayments	(1,158)	(301)
Transactions with stockholders:		Ì
Dividends and interest on capital paid to noncontrolling interest	(4)	(3)
Transactions with noncontrolling stockholders	(17)	
Net cash provided by financing activities	2,021	1,038
Increase (decrease) in cash and cash equivalents	123	(115)
Cash and cash equivalents in the beginning of the period	3,591	3,974
Effect of exchange rate changes on cash and cash equivalents	68	(175)
Cash and cash equivalents at end of the period	3,782	3,684
Non-cash transactions:		
Additions to property, plant and equipment - capitalized loans and borrowing costs	177	196

⁽i) Includes transactions with related parties: Banco Bradesco, Banco do Brasil e Banco Nacional do Desenvolvimento econômico e Social - BNDES.

The accompanying notes are an integral part of these interim financial statements.

Condensed Consolidated Balance Sheet

In millions of United States dollars

	Notes	March 31, 2016	December 31, 2015
Assets	Notes	March 31, 2010	December 31, 2013
Current assets			
Cash and cash equivalents	7	3,782	3,591
Financial investments		27	28
Derivative financial instruments	19	141	121
Accounts receivable	8	2,553	1,476
Inventories	9	3,801	3,528
Prepaid income taxes		625	900
Recoverable taxes		1,523	1,404
Related parties	25	100	70
Others		582	311
		13,134	11,429
Assets held for sale	5	4,091	4,044
		17,225	15,473
Non-current assets			
Derivative financial instruments	19	170	93
Loans		194	188
Prepaid income taxes		517	471
Recoverable taxes		544	501
Deferred income taxes	15(a)	7,675	7,904
Judicial deposits	14(c)	984	882
Related parties	25	<	1
Others		623	613
		10,707	10,653
Investments in associates and joint ventures	10	3,397	2,940
Intangibles	11	6,018	5,324
Property, plant and equipment	12	57,925	54,102
		78,047	73,019
Total assets		95,272	88,492
Liabilities			
Current liabilities			
Suppliers and contractors		3,147	3.365
Payroll and related charges		413	375
Derivative financial instruments	19	1,629	2,076
Loans and borrowings	13	3,255	2,506
Related parties	25	732	475
Income taxes - Settlement program	15(c)	389	345
Taxes payable	13(0)	223	250
Talles paymore		223	230

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Provision for income taxes		167	241
Employee postretirement obligations	16	71	68
Asset retirement obligations		88	89
Others		1,191	648
		11,305	10,438
Liabilities associated with assets held for sale	5	94	107
		11,399	10,545
Non-current liabilities			
Derivative financial instruments	19	1,225	1,429
Loans and borrowings	13	28,215	26,347
Related parties	25	123	213
Employee postretirement obligations	16	1,957	1,750
Provisions for litigation	14(a)	851	822
Income taxes - Settlement program	15(c)	4,502	4,085
Deferred income taxes	15(a)	1,817	1,670
Asset retirement obligations		2,622	2,385
Participative stockholders debentures	24(b)	502	342
Deferred revenue - Gold stream	23	1,715	1,749
Others		1,572	1,451
		45,101	42,243
Total liabilities		56,500	52,788
Stockholders equity			
Equity attributable to Vale s stockholders	20	36,742	33,589
Equity attributable to noncontrolling interests		2,030	2,115
Total stockholders equity		38,772	35,704
Total liabilities and stockholders equity		95,272	88,492

The accompanying notes are an integral part of these interim financial statements.

Condensed Consolidated Statement of Changes in Equity

In millions of United States dollars

	Share capital	conversion	Results from operation with noncontrolling interest	Profit reserves	Treasury stocks	Unrealized fair value gain (losses)	translation	Retained earnings	Equity attributable to Vale s stockholders	Equity attributable to noncontrolling interests	Total stockholder equity
Balance at December 31, 2015 Net income	61,614	(152)	(702)	985	(1,477)) (992)	(25,687)) 1,776	33,589 1,776	2,115 4	,
Other comprehensive income:											
Retirement benefit obligations Cash flow hedge						(58) 2			(58) 2		(58 2
Translation adjustments Transactions with				96		(43)	1,383	(3)	1,433	64	1,497
stockholders: Dividends of noncontrolling										(150)	(15)
interest Capitalization of noncontrolling interest										(159)	
advances Balance at March 31, 2016	61,614	(152)	(702)	1,081	(1,477)	(1,091)	(24,304)	1,773	36,742	2,030	
	Share capital	conversion	Results from operation with noncontrolling interest	Profit reserves	Treasury stocks	Unrealized fair value gain (losses)	translation	Retained earnings	Equity attributable to Vale s stockholders	Equity attributable to noncontrolling interests	Total stockholder equity
Balance at December 31, 2014 Loss	61,614	(152)	(449)	19,985	(1,477)) (1,713)	(22,686)) (3,118)	55,122 (3,118)		
Other comprehensive income:											

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Retirement benefit									
obligations				(51)			(51)		(51
Cash flow hedge				113			113		113
Translation									
adjustments		(3,437)		104	(1,707)	145	(4,895)	(6)	(4,901
Transactions									
with									
stockholders:									
Dividends of									
noncontrolling									
interest								(2)	(2
Acquisitions									
and disposal of									
participation of									
noncontrolling									
interest		(2)					(2)	2	
Capitalization of									
noncontrolling									
interest									
advances								7	7
Balance at									
March 31, 2015 61,614	(152)	(451) 16,548	(1,477)	(1,547)	(24,393)	(2,973)	47,169	1,148	48,317

The accompanying notes are an integral part of these interim financial statements.

Table	αf	Contents

Selected Notes to the Interim Financial Statements

Expressed in millions of United States dollar, unless otherwise stated

1. Corporate information

Vale S.A. (the Parent Company) is a public company headquartered at 700, Avenida das Américas, Rio de Janeiro, Brazil with securities traded on the stock exchanges of São Paulo - BM&F BOVESPA (Vale3 and Vale5), New York - NYSE (VALE and VALE.P), Paris - NYSE Euronext (Vale3 and Vale5) and Hong Kong - HKEx (codes 6210 and 6230).

Vale and its direct and indirect subsidiaries (Vale, Group or Company) are producers of iron ore and iron ore pellets, key raw materials for steelmaking, and producers of nickel, which is used to produce stainless steel and metal alloys employed in the production of several products. The Group also produces copper, metallurgical and thermal coal, potash, phosphates and other fertilizer nutrients, manganese ore, ferroalloys, platinum group metals, gold, silver and cobalt. The information by segment is presented in note 3.

2. Basis for preparation of the interim financial statements

a) Statement of compliance

The condensed consolidated interim financial statements of the Company (interim financial statements) present the accounts of the Group, and have been prepared in accordance with IAS 34 Interim Financial Reporting of the International Financial Reporting Standards (IFRS) as adopted by the International Accounting Standards Board (IASB).

b) Basis of presentation

The interim financial statements have been prepared under the historical cost convention as adjusted to reflect: (i) the fair value of financial instruments measured at fair value through income statement or available-for-sale financial instruments measured at fair value through the statement of comprehensive income; and (ii) impairment of assets.

The accounting practices, accounting estimates and judgments, risk management and measurement methods are the same as those adopted when preparing the financial statements for the year ended December 31, 2015. These interim financial statements were prepared to update users about relevant information presented in the period and should be read in conjunction with the financial statements for the year ended December 31, 2015.

The interim financial statements of the Group and its associates and joint ventures are measured using the currency of the primary economic environment in which each entity operates (functional currency). In the case of the Parent Company the functional currency is the Brazilian real (BRL or R\$). For presentation purposes, these interim financial statements are presented in United States dollar (USD or US\$) as the Company believes that this is how international investors analyze the financial statements.

The exchange rates used by the Group for major currencies to translate its operations are as follows:

	Closin	ng rate	Average rate for the thr	ee-month period ended
	March 31, 2016	December 31, 2015	March 31, 2016	March 31, 2015
Brazilian Reais (R\$)	3.5589	3.9048	3.9022	2.8702
Canadian dollar (CAD)	2.7446	2.8171	2.8421	2.3120
Australian dollar (AUD)	2.7322	2.8532	2.8165	2.2543
Euro (EUR or)	4.0539	4.2504	4.3008	3.2212

Subsequent events were evaluated through April 27, 2016, which is the date the interim financial statements were approved by the Board of Directors.

c) Accounting standards issued but not yet effective

The standards and interpretations issued by IASB relevant to the Company but not yet effective are the same as those adopted when preparing the financial statements for the year ended December 31, 2015.

3. Information by business segment and by geographic area

The information presented to the Executive Board on the performance of each segment is derived from the accounting records, adjusted for reallocations between segments.

a) Operating income and adjusted EBITDA

Adjusted EBITDA is used by management to support the decision making process for segments. The definition of adjusted EBITDA for the Company is the operating income or loss adding dividends received from associates and joint ventures, and excluding the depreciation, depletion and amortization, impairment, onerous contracts and results on measurement or sales of non-current assets.

	Three-month period ended March 31, 2016									
				Income sta	atement			Adjusted by		
	Net operating revenue	Costs	Expenses, net	Research and evaluation expenses	Pre operating and operational stoppage	Depreciation and other results	Operating income (loss)	Dividends received from associates and joint ventures	depletion and	
Ferrous minerals			•	•	••			·		
Iron ore	2,917	(1,309)	(156)	(11)	(32)	(241)	1,168		241	1,409
Pellets	753	(437)	(16)		(4)	(80)	216		80	296
Ferroalloys and										
manganese	47	(46)	2		(2)	(8)	(7)		8	1
Other ferrous products and										
services	87	(59)	5		(1)	(18)	14		18	32
	3,804	(1,851)	(165)	(11)	(39)	(347)	1,391		347	1,738
Coal	154	(293)	49	(2)	(1)	(23)	(116)		23	(93)
Base metals										
Nickel and other										
products	1,000	(764)	(24)	(14)	(32)	(364)	(198)		364	166
Copper	353	(192)	3	(1)		(43)	120		43	163

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	1,353	(956)	(21)	(15)	(32)	(407)	(78)		407	329
Fertilizers										
Potash	23	(18)	4	(2)	(4)	(6)	(3)		6	3
Phosphates	290	(234)	(13)	(3)		(56)	(16)		56	40
Nitrogen	58	(42)	(2)			(5)	9		5	14
Other fertilizers	10						12			12
products	13						13			13
	384	(294)	(11)	(5)	(4)	(67)	3		67	70
Others	24	(45)	8	(27)		(6)	(46)	1	6	(39)
Total	5,719	(3,439)	(140)	(60)	(76)	(850)	1,154	1	850	2,005

Three-month	h period ended March 31, 2015
Statement of income	

Adjusted by

				Statement of in	Pre operating			Results on	Dividends		
	Net operating revenue	Costs	Expenses, net	Research and evaluation expenses		Depreciation and other results	Operating income (loss)	measurement or sale of non-	received from associates and	depletion and	l Adj
Ferrous											
minerals											
Iron ore		(1,898)			(27)					359	
Pellets	965	(591)	3	(1)	(5)	(85)	286		26	8.	5
Ferroalloys											
and											
manganese	70	(47)	1		(6)	(6)) 11			(6
Other											
ferrous											
products											
and											
services	117	(100)		(1)		(20)				20	
	3,868	(2,636)	(158)	(35)	(38)	(470)	531		26	470	0 :
Coal	145	(186)	(70)	(5)	(12)	(23)	(151)		2.	3
Base											
metals											
Nickel and											
other											
products	1,335	(847)		(27)	(105)					422	
Copper	375	(224)	4	(1)	(1)	(48)	105			48	8
Other base											
metals											
products			230				230				
	1,710	(1,071)	173	(28)	(106)	(470)	208			470	0
Fertilizers											
Potash	30	(21)	(1)	(10)	(4)	(6)					6
Phosphates	357	(261)			(9)	(55)	10			5:	5
Nitrogen	79	(55)	(3)	(1)	(1)	(6)	13			(6
Other											
fertilizers											
products	12						12				
	478	(337)	(20)	(17)	(14)	(67)	23			6'	7
Others	39	(27)	(44)	(34)		188	122	(193	3) 1		5
Total	6,240	(4,257)	(119)	(119)	(170)	(842)	733	(193	3) 27	1,03	5

b) Assets by segment

	Trade receivables	As at Mai	rch 31, 2016 Investments in associates and joint ventures	Property, plant and equipment and intangible assets	Three-month period ended March 31, 2016 Additions to property, plant and equipment and intangible (i)
Ferrous minerals					
Iron ore	745	956	443	29,682	904
Pellets	925	180	352	1,218	7
Ferroalloys and					
manganese	51	65		173	6
Other ferrous					
products and services	108	2	849	231	
	1,829	1,203	1,644	31,304	917
Coal	27	44	298	1,881	133
Base metals					
Nickel and other					
products	391	1,121	15	22,097	176
Copper	199	32		2,490	93
	590	1,153	15	24,587	269
Fertilizers					
Potash	6	21		152	
Phosphates	107	336	83	4,015	39
Nitrogen	16	13			
	129	370	83	4,167	39
Others	38	4	1,357	2,004	8
Total	2,613	2,774	3,397	63,943	1,366

⁽i) Include only cash effect.

		December	Three-month period ended March 31, 2015		
	Trade receivables	Product inventory	Investments in associates and joint ventures	Property, plant and equipment and intangible assets	Additions to property, plant and equipment and intangible (i)
Ferrous minerals		·	v	J	G
Iron ore	76	812	405	26,772	1,460
Pellets	715	159	296	1,079	11
	52	63		140	2

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Ferroal	loys and
mangai	nese

Other ferrous					
products and services	77	2	778	211	3
	920	1,036	1,479	28,202	1,476
Coal	44	53	306	1,812	354
Base metals					
Nickel and other					
products	411	1,142	17	21,286	217
Copper	17	24		2,236	71
	428	1,166	17	23,522	288
Fertilizers					
Potash	3	13		146	
Phosphates	84	272	75	3,720	56
Nitrogen	14	10			
	101	295	75	3,866	56
Others	41	3	1,063	2,024	26
Total	1,534	2,553	2,940	59,426	2,200

(i) Include only cash effect.

c) Results by segment and revenues by geographic area

	.	Th	ree-month period e	nded March 31, 201	16	
	Ferrous minerals	Coal	Base metals	Fertilizers	Others	Total
Results						
Net operating revenue	3,804	154	1,353	384	24	5,719
Cost and expenses	(2,066)	(247)	(1,024)	(314)	(64)	(3,715)
Depreciation, depletion and amortization	(347)	(23)	(407)	(67)	(6)	(850)
Operating income (loss)	1,391	(116)	(78)	3	(46)	1,154
Financial result	1,514	40	(140)	14	(3)	1,425
Equity results in associates and joint						
ventures	40	(10)	(2)		128	156
Income taxes	(993)		45	(7)		(955)
Net income (loss)	1,952	(86)	(175)	10	79	1,780
Income (loss) attributable to noncontrolling						
interests	41	(25)	(18)	5	1	4
Income (loss) attributable to Vale s						
stockholders	1,911	(61)	(157)	5	78	1,776
Sales classified by geographic area:						
America, except United States and Brazil	91	3	278	10		382
United States of America	34		171		4	209
Europe	485	7	423	21		936
Middle East/Africa/Oceania	164	19	9			192
Japan	254	34	52			340
China	2,272	25	157			2,454
Asia, except Japan and China	156	66	245	20		487
Brazil	348		18	333	20	719
Net operating revenue	3,804	154	1,353	384	24	5,719

	_	Th	5			
	Ferrous minerals	Coal	Base metals	Fertilizers	Others	Total
Results						
Net operating revenue	3,868	145	1,710	478	39	6,240
Cost and expenses	(2,867)	(273)	(1,032)	(388)	(105)	(4,665)
Results on measurement or sales of						
non-current assets					193	193
Depreciation, depletion and amortization	(470)	(23)	(470)	(67)	(5)	(1,035)
Operating income (loss)	531	(151)	208	23	122	733
•						
Financial result	(4,430)	83	(101)	(68)	6	(4,510)

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Results on sale or disposal of investments in					4.0	4.0
associates and joint ventures					18	18
Equity results in associates and joint						
ventures	(142)		(5)		(124)	(271)
Income taxes	1,048	(23)	(33)	(126)	(6)	860
Net income (loss)	(2,993)	(91)	69	(171)	16	(3,170)
Income (loss) attributable to noncontrolling						
interests	(6)	(11)	(32)	6	(9)	(52)
Income (loss) attributable to Vale s						
stockholders	(2,987)	(80)	101	(177)	25	(3,118)
Sales classified by geographic area:						
America, except United States and Brazil	95		305	15		415
United States of America	10		239		8	257
Europe	649	13	437	28		1,127
Middle East/Africa/Oceania	295	34	39	3		371
Japan	408	29	145			582
China	1,634		142			1,776
Asia, except Japan and China	309	59	276	11		655
Brazil	468	10	127	421	31	1,057
Net operating revenue	3,868	145	1,710	478	39	6,240
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4. Relevant event Dam failure at Samarco Mineração S.A. (Samarco)

On November 5, 2015, Samarco experienced the failure of an iron ore tailings dam (Fundão) in the state of Minas Gerais - Brazil, which affected communities and ecosystems, including the Rio Doce river.

Following the dam failure, the state government of Minas Gerais ordered the suspension of Samarco s operations.

Samarco and its shareholders, Vale and BHP Billiton Brasil Ltda. (BHPB), entered into a settlement agreement on March 2, 2016 with the federal Attorney General of Brazil, the two Brazilian states affected by the failure (Espírito Santo and Minas Gerais) and certain other parties. The settlement agreement, which includes no admission of civil, criminal or administrative liability for the Fundão dam failure, is expected to resolve the lawsuit brought in Brazilian courts by several Brazilian governmental authorities. The settlement agreement is already effective, though the resolution of claims pursuant to the agreement remains subject to judicial approval. There is no assurance as to whether and when the court will approve the resolution of claims. The term of the agreement is 15 years, renewable for successive one-year periods until all obligations under the agreement have been performed.

Under the settlement agreement, Samarco, Vale and BHPB will establish a foundation to develop and implement remediation programs to restore the environment, local communities and the social condition of the affected areas, as well as compensation programs.

Samarco has agreed to provide funding to the foundation in the amount of R\$2.0 billion (US\$562) in 2016, R\$1.2 billion (US\$337) in 2017 and R\$1.2 billion (US\$337) in 2018. Amounts that Samarco has already spent on remediation and compensation will be applied towards its funding obligations. From 2019 to 2021, Samarco has agreed to provide funding based on the amounts needed to complete remaining remediation and compensation projects, subject to an annual minimum of R\$800 (US\$225) and an annual maximum of R\$1.6 billion (US\$450). The foundation will allocate an annual amount of R\$240 (US\$67) over 15 years to the implementation of compensation programs, and these annual amounts are included in the annual contributions described above for the first six years. Through the end of 2018, the foundation will also set aside R\$500 (US\$140) for basic sanitation in the affected areas.

To comply with the settlement agreement, Samarco will continue to conduct and fund the humanitarian and environmental recovery and compensation works until the foundation is operational, which is likely to occur before the end of 2016.

Samarco is currently unable to conduct ordinary mining and processing. Samarco s management is working on a plan that would permit it to resume operations, but the feasibility, timing and scope of restarting remain uncertain.

To the extent of Samarco does not meet its funding obligations in the foundation, each of Vale and BHPB is liable, under the terms of the agreement, to provide funds to the foundation in proportion to its 50% interest in Samarco.

Samarco and its shareholders expect that Samarco will be able to generate all or a substantial part of the funding required under the arrangement. Therefore, Samarco s future cash flow projections require the use of critical estimates and assumptions in their preparation, including but not limited to: (i) judicial approval of the agreement; (ii) the release of certain escrow accounts in connection with judicial proceedings in progress; (iii) the resumption of operations within a reasonable period of time; and (iv) the management of debt held by Samarco with financial institutions and bond holders.

Until new facts and circumstances are available and the referred uncertainties are reduced, it is not possible to estimate or reliably measure whether Vale will be required to provide the contributions to Samarco to comply with the agreement or to provide guarantees of its other obligations. Therefore, no provision was recognized in the Company's interim financial statements as of March 31, 2016.

In addition, Samarco and its shareholders are named as a defendant in several other lawsuits brought by individuals, corporations and governmental entities seeking damages for personal injury, wrongful death, commercial or economic injury, breach of contract and violations of statutes. Because these pending lawsuits are at the very early stages, it is not possible to determine a range of outcomes or reliable estimates of the potential exposure at this time. Therefore, no provision has been recognized and no contingent liability has been quantified

The Company will reassess each reporting period the key assumptions used in Samarco's cash flow and any impact identified and related to this matter will be reflect in its financial statements.

5. Assets held for sale

a) Coal - Nacala logistic corridor (Nacala)

As at March 31, 2016 and December 31, 2015, assets held for sale refers to Nacala logistic corridor (Nacala).

In December 2014, the Company signed an agreement with Mitsui & Co., Ltd. (Mitsui) to sell 50% of its stake of 70% in the Nacala corridor. Nacala is a combination of railroad and port concessions under construction located in Mozambique and Malawi. After completion of the transaction, Vale will share control of Nacala with Mitsui and therefore will not consolidate the assets, liabilities and results of those entities. The assets and liabilities were classified as assets held for sale with no impact in the income statement. As at March 2016, completion of the transaction remains dependent upon certain conditions. The Company remains committed to its plan to sell its 50% interest.

	March 31, 2016	December 31, 2015
Assets held for sale		
Accounts receivable	8	3
Other current assets	121	134
Property, plant and equipment and Intangible, net	3,962	3,907
Total assets	4,091	4,044
Liabilities associated with assets held for sale		
Suppliers and contractors	83	93
Other current liabilities	11	14
Total liabilities	94	107
Net assets held for sale	3,997	3,937

6. Acquisitions and divestitures

2016

Minas da Serra Geral S.A. (MSG) In March 2016, the Company completed the purchase option on additional 50% participation at MSG which was owned by JFE Steel Corporation (JFE) in the amount of US\$17. Vale now holds 100% of MSG s total stockholder s equity.

2015

Energy generation assets - In December 2013, the Company signed agreements with CEMIG Geração e Transmissão S.A. (CEMIG GT) to incorporate two joint ventures, Aliança Norte Participações S.A. and Aliança Geração de Energia S.A and exchange of assets and shares. The transaction was completed in the first quarter of 2015, in which Vale received cash proceeds of US\$97 and recognized a gain of US\$18 as result on sale or disposal of investments in associates and joint ventures and a gain of US\$193 as results on measurement or sales of non-current assets.

7. Cash and cash equivalents

	March 31, 2016	December 31, 2015
Cash and bank deposits	2,622	2,018
Short-term investments	1,160	1,573
	3,782	3,591

Cash and cash equivalents includes cash, immediately redeemable deposits and short-term investments with an insignificant risk of change in value. They are readily convertible to cash, part in R\$, indexed to the Brazilian Interbank Interest rate (DI Rate or CDI) and part denominated in US\$, mainly time deposits.

8. Accounts receivable

	March 31, 2016	December 31, 2015
Trade receivables	2,613	1,534
Provision for doubtful debts	(60)	(58)
	2,553	1,476
Trade receivables related to the steel sector - %	76.25%	75.32%

Three-month period ended March 31 2016 2015

Reversal (provision) for doubtful debts recorded in the income statement

Trade receivables write-offs recorded in the income statement

Trade receivables by segments are presented in note 3(b). No individual customer represents over 10% of receivables or revenues.

9. Inventories

	March 31, 2016	December 31, 2015
Product inventory	2,774	2,553
Consumable inventory	1,027	975
Total	3,801	3,528

Product inventory is stated net of provisions, as follows:

	March 31, 2016	December 31, 2015
Product inventory, gross amount	3,216	3,071
Iron ore	(21)	(19)
Coal	(355)	(423)
Manganese	(4)	(4)
Nickel	(54)	(70)
Phosphate	(8)	(2)
Total	2,774	2,553

Product inventories by segments are presented in note 3(b).

10. Investments in associates and joint ventures

Changes in investments in associates and joint ventures are as follows:

	Three-month period end	ed March 31
	2016	2015
Balance at beginning of the period	2,940	4,133
Acquisitions (i)		579
Additions	83	10
Translation adjustment	259	(605)
Equity results on income statement	156	(271)
Equity results on statement of comprehensive income		(2)
Dividends declared	(29)	(27)
Transfer to held for sale		(5)
Others	(12)	
Balance at end of the period	3,397	3,812

⁽i) Refers to Aliança Geração transaction, see note 6.

In April 2016 (subsequent events), the Company announced the sale of its 26.87% interest at Thyssenkrupp Companhia Siderúrgica do Atlântico Ltd for a symbolic amount. The transaction will result in US\$92 loss on recycling the Cumulative translation adjustments .

The Company indirectly holds a 4.6% interest in Norte Energia S.A. (through Aliança Norte Energia Participações S.A.), and the Company s investment and equity results as of March 31, 2016, are respectively US\$110 and US\$(2). The independent auditor s opinion on the Norte Energia financial statements for the year ended December 31, 2015, was qualified due to an investigation related to possible breaches of law and regulation that had not been completed when the mentioned the opinion was issued. Vale believes that the auditor s qualification has no quantitative or qualitative impact on its interim financial information as of March 31, 2016.

11. Intangibles

Changes in intangibles are as follows:

	Goodwill (i)	Concessions (ii)	Right of use (ii)	Software (ii)	Total
Balance at December 31, 2015	2,956	1,814	207	347	5,324
Additions		365	1	1	367
Disposals		(1)			(1)
Amortization		(32)	(11)	(37)	(80)
Translation adjustment	139	208	19	35	401
Transfers			(67)	74	7
Balance at March 31, 2016	3,095	2,354	149	420	6,018
Cost	3,095	3,238	256	1,391	7,980
Accumulated amortization		(884)	(107)	(971)	(1,962)
	3,095	2,354	149	420	6,018

	Goodwill (i)	Concessions (ii)	Right of use (ii)	Software (ii)	Total
Balance at December 31, 2014	3,760	2,213	297	550	6,820
Additions		122		74	196
Disposals		(13)			(13)
Amortization		(42)	(11)	(44)	(97)
Translation adjustment	(405)	(388)	(29)	(97)	(919)
Acquisition of subsidiary	39				39
Balance at March 31, 2015	3,394	1,892	257	483	6,026
Cost	3,394	2,925	466	1,189	7,974
Accumulated amortization		(1,033)	(209)	(706)	(1,948)
	3,394	1,892	257	483	6,026

⁽i) Indefinite useful life.

12. Property, plant and equipment

Changes in property, plant and equipment are as follows:

⁽ii) Finite useful life.

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					Mineral		Constructions	
	Land	Building	Facilities	Equipment	properties	Others	in progress	Total
Balance at December 31, 2015	766	9,101	8,292	7,307	10,304	7,206	11,126	54,102
Additions (i)							873	873
Disposals				(10)	(3)	(8)	(1)	(22)
Depreciation and amortization		(114)	(140)	(214)	(177)	(140)		(785)
Translation adjustment	59	627	512	372	682	555	919	3,726
Assets retirement obligations					38			38
Transfers	(4)	227	48	229	94	32	(633)	(7)
Balance at March 31, 2016	821	9,841	8,712	7,684	10,938	7,645	12,284	57,925
Cost	821	14,754	14,070	13,128	18,271	11,290	12,284	84,618
Accumulated depreciation		(4,913)	(5,358)	(5,444)	(7,333)	(3,645)		(26,693)
	821	9,841	8,712	7,684	10,938	7,645	12,284	57,925

	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
Balance at December 31, 2014	1,069	11,654	10,813	9,287	14,929	10,954	19,416	78,122
Additions (i)							2,097	2,097
Disposals		(5)	(1)	(5)	(151)	(6)	(2)	(170)
Depreciation and amortization		(135)	(208)	(308)	(217)	(198)		(1,066)
Translation adjustment	(156)	(1,623)	(1,558)	(935)	(1,429)	(1,285)	(2,409)	(9,395)
Transfers	10	1,451	774	926	(457)	397	(3,101)	
Acquisition of subsidiary				1		119		120
Balance at March 31, 2015	923	11,342	9,820	8,966	12,675	9,981	16,001	69,708
Cost	923	13,766	14,637	13,711	18,288	13,851	16,001	91,177
Accumulated depreciation		(2,424)	(4,817)	(4,745)	(5,613)	(3,870)		(21,469)
	923	11,342	9,820	8,966	12,675	9,981	16,001	69,708

⁽i) Includes capitalized borrowing costs, see cash flow.

There are no material changes to the net book value of consolidated property, plant and equipment pledged to secure judicial claims and loans and borrowings (note 13(d)) compared to those disclosed in the financial statements as at December 31, 2015.

13. Loans and borrowings

a) Total debt

	Current liabilities		Non-current liabilities	
	March 31, 2016	December 31, 2015	March 31, 2016	December 31, 2015
Debt contracts in the international markets				
Floating rates in:				
US\$	241	241	8,091	5,174
Fixed rates in:				
US\$	1,927	1,191	11,416	12,923
EUR		1,709	1,633	
Other currencies	17	14	179	169
Accrued charges	218	326		
S.	2,403	1,772	21,395	19,899
Debt contracts in Brazil				
Floating rates in:				
R\$, indexed to TJLP, TR, IPCA, IGP-M and				
CDI	233	212	5,134	4,709
Basket of currencies and US\$ indexed to				
LIBOR	313	290	1,264	1,342
Fixed rates in:				
R\$	70	63	277	268
Accrued charges	236	169	145	129
-	852	734	6,820	6,448
	3,255	2,506	28,215	26,347

The future flows of debt payments (principal and interest) per nature of funding are as follows:

	Bank loans (i)	Capital markets (i)	Development agencies (i)	Debt principal (i)	Estimated future payments of interest (ii)
2016	622		358	980	1,556
2017	954	1,212	1,085	3,251	1,581
2018	1,002	854	3,060	4,916	1,430
2019	1,179	1,000	698	2,877	1,230
2020	785	1,309	3,434	5,528	1,085
2021	759	84	397	1,240	920
Between 2022 and 2025	947	3,334	1,090	5,371	2,388
2026 onwards	137	6,486	85	6,708	5,807
	6,385	14,279	10,207	30,871	15,997

At March 31, 2016, the average annual interest rates by currency are as follows:

	Average interest rate (i)	Total debt	
Loans and borrowings in			
US\$	4.20%	23,469	
R\$ (ii)	9.96%	6,087	
EUR (iii)	4.06%	1,718	
Other currencies	6.14%	196	
		31,470	

⁽i) In order to determine the average interest rate for debt contracts with floating rates, the Company used the last renegotiated rate at March 31, 2016.

⁽i) Does not include accrued charges.

⁽ii) Consists of estimated future payments of interest, calculated based on interest rate curves and foreign exchange rates applicable as at March 31, 2016 and considering that all amortization payments and payments at maturity on loans and borrowings will be made on their contracted payments dates. The amount includes the estimated values of future interest payments (not yet accrued), in addition to interest already recognized in the financial statements.

⁽ii) R\$ denominated debt that bears interest at IPCA, CDI, TR or TJLP, plus spread. For a total of US\$4,425, the Company entered into derivative transactions to mitigate the exposure to the cash flow variations of the floating rate debt denominated in R\$, resulting in an average cost of 2.21% per year in US\$.

⁽iii) Eurobonds, for which the Company entered into derivatives to mitigate the exposure to the cash flow variations of the debt denominated in EUR, resulting in an average cost of 4.29% per year in US\$.

b) Credit and financing lines

Туре	Contractual currency	Date of agreement	Period of the agreement	Total amount	Available amount March 31, 2016
Credit lines					
Revolving credit facilities	US\$	May 2015	5 years	3,000	1,200
Revolving credit facilities	US\$	July 2013	5 years	2,000	800
Financing lines					
BNDES (i)	R\$	April 2008	10 years	2,051	492
BNDES - CLN 150	R\$	September 2012	10 years	1,091	6
BNDES - S11D e S11D Logística	R\$	May 2014	10 years	1,732	800

⁽i) Memorandum of understanding signature date, however term is considered from the signature date of each contract amendment. This credit line supported or supports the Usina VIII, Onça Puma, Salobo I and II and capital expenditure of Itabira projects.

c) Funding

In January 2016, the Company drew down on US\$3,000 of its revolving credit facilities. The amount of US\$1,800 was drew down on by Vale International S.A. and US\$1,200 by the Parent Company.

d) Guarantees

As at March 31, 2016 and December 31, 2015, loans and borrowings are secured by property, plant and equipment and receivables in the amount of US\$507 and US\$495, respectively.

The securities issued through Vale s 100%-owned finance subsidiary Vale Overseas Limited are fully and unconditionally guaranteed by Vale.

e) Covenants

Some of the Company s debt agreements with lenders contain financial covenants. The main covenants in those agreements require maintaining certain ratios, such as debt to EBITDA (Earnings before Interest Taxes, Depreciation and Amortization) and interest coverage. The Company has not identified any instances of noncompliance as at March 31, 2016 and December 31, 2015.

14. Litigation

a) Provision for litigation

Vale is party to labor, civil, tax and other ongoing lawsuits, at administrative and court levels. Provisions for losses resulting from lawsuits are estimated and updated by the Company, based on analysis from the Company s legal consultants. Changes in provision for litigation are as follows:

	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
Balance at December 31, 2015	269	79	454	20	822
Additions	3	12	47	2	64
Reversals	(9)	(4)	(18)	(2)	(33)
Payments	(62)	(18)	(24)		(104)
Indexation and interest	2	24	3	1	30
Translation adjustment	15	10	45	2	72
Balance at March 31, 2016	218	103	507	23	851

	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
Balance at December 31, 2014	366	118	706	92	1,282
Additions	145	16	34		195
Reversals	(174)	(12)	(26)		(212)
Payments	(8)	2	(4)	(11)	(21)
Indexation and interest	19	11	7	(2)	35
Translation adjustment	(43)	(21)	(121)	(7)	(192)
Balance at March 31, 2015	305	114	596	72	1.087

b) Contingent liabilities

Contingent liabilities consist of administrative and judicial claims, which expectation of loss is classified as possible, and for which the recognition of a provision is not considered necessary by the Company, based on legal support.

	March 31, 2016	December 31, 2015
Tax litigation	6,397	5,326
Civil litigation	1,598	1,335
Labor litigation	1,807	1,866
Environmental litigation	1,596	1,381
Total	11,398	9,908

- i Tax litigation The most significant claims relate to pending challenges by the Brazilian federal tax authority concerning the deductibility of Brazilian social contribution payments for income tax purposes and demands by Brazilian state tax authorities for additional payments of the value-added tax on services and circulation of goods
 (ICMS) in relation to the use of ICMS credits from sales and energy transmission. The change in the period is basically a new tax enforcement on services and circulation of goods (ICMS) and Tax on services of any nature (ISS).
- **ii** Civil litigation Most of these claim have been filed by suppliers for indemnification under construction contracts, primarily relating to certain alleged damages, payments and contractual penalties. A number of other claims involve disputed contractual terms for inflation indexation.
- iii Labor litigation These line represent a very large number of individual claims by (i) employees and service providers, primarily involving demands for additional compensation for overtime work, time spent commuting or health and safety conditions; and (ii) the Brazilian federal social security administration (INSS) regarding contributions on compensation programs based on profits.
- **iv** Environmental litigation The most significant claims concern alleged procedural deficiencies in licensing processes, non-compliance with existing environmental licenses or damage to the environment.

c) Judicial deposits

In addition to the provisions and contingent liabilities, the Company is required by law to make judicial deposits to secure a potential adverse outcome of certain lawsuits. These court-ordered deposits are monetarily adjusted and reported as non-current assets until a judicial decision to draw the deposit occurs.

	March 31, 2016	December 31, 2015
Tax litigation	240	211
Civil litigation	99	102
Labor litigation	627	553
Environmental litigation	18	16
Total	984	882

d) Others

i-Samarco Vale S.A. and certain of its officers have been named as defendants in putative securities class action suits in federal court in New York brought by holders of Vale s securities under U.S. federal securities laws. The lawsuits allege that Vale made false and misleading statements or omitted to make disclosures concerning the risks and dangers of the operations of Samarco s Fundão dam and the adequacy of related programs and security procedures. The plaintiffs have not specified an amount of alleged damages in these actions. Vale intends to vigorously defend these actions and mount a full defense against the allegations, considering they do not represent true facts and therefore lack legal foundation. The litigation is at a very early stage. On March 7, 2016, the judge overseeing the putative securities class actions issued an order consolidating these actions and designating lead plaintiffs and counsel. The judge has given lead plaintiffs until April 29, 2016 to file a consolidated amended complaint that will serve as the operative complaint in the litigation. As a consequence of the preliminary nature of these suits, it is not possible to determine a range of outcomes or reliable estimates of the potential exposure at this time, and no provision has been recognized.

ii - Compulsory deposits - In the third quarter of 2015, the Company filed an enforceable action in the amount of R\$524 (US\$147) referring to the final court decision in favor of the Company of the accrued interest of compulsory deposits from 1987 to 1993. Currently it is not possible to estimate the economic benefit inflow as the counterparty can appeal on the calculation. Consequently, the asset was not recognized in the financial statements.

15. Income taxes

a) Deferred income tax

Changes in deferred tax are as follows:

	Assets	Liabilities	Total
Balance at December 31, 2015	7,904	1,670	6,234
Effect in income statement	(654)	(44)	(610)
Transfers between asset and liabilities	84	84	
Translation adjustment	481	125	356
Other comprehensive income	(140)	(18)	(122)
Balance at March 31, 2016	7,675	1.817	5,858

	Assets	Liabilities	Total
Balance at December 31, 2014	3,976	3,341	635
Effect in income statement	923	(7)	930
Translation adjustment	(515)	(186)	(329)
Other comprehensive income	1	(49)	50
Acquisition of subsidiary	(11)		(11)
Balance at March 31, 2015	4,374	3,099	1,275

b) Income tax reconciliation

The total amount presented as income taxes in the income statement is reconciled to the rate established by law, as follows:

	Three-month period ended March 31		
	2016	2015	
Net income (loss) before income taxes	2,735	(4,030)	
Income taxes at statutory rates - 34%	(930)	1,370	
Adjustments that affect the basis of taxes:			
Income tax benefit from interest on stockholders equity		190	
Equity results	57	(92)	

Additions of tax loss carry forward	57	
Unrecognized tax losses of the period	(185)	(420)
Others	46	(188)
Income taxes	(955)	860

c) Income taxes - Settlement program (REFIS)

In 2013, the Company elected to participate in the REFIS, a federal tax settlement program, to settle most of the claims related to the collection of income tax and social contribution on equity gains of foreign subsidiaries and affiliates from 2003 to 2012.

At March 31, 2016, the balance of US\$4,891 (US\$389 as current and US\$4,502 as non-current) is due in 151 remaining monthly installments, bearing interest at the SELIC rate.

16. Employee benefits obligations

Reconciliation of assets and liabilities recognized in the balance sheet

	Total						
	Overfunded pension plans	March 31, 2016 Underfunded pension plans	Other benefits	Overfunded pension plans	December 31, 2015 Underfunded pension plans	Other benefits	
Balance at beginning of							
the period	961			1,301			
Interest income	33			130			
Changes in asset ceiling							
and onerous liability	228			(54)			
Translation adjustment	118			(416)			
Balance at end of the							
period	1,340			961			
Amount recognized in							
the balance sheet							
Present value of actuarial							
liabilities	(2,742)	(3,930)	(1,314)	(2,474)	(3,689)	(1,223)	
Fair value of assets	4,081	3,216		3,435	3,094		
Effect of the asset ceiling	(1,339)			(961)			
Liabilities		(714)	(1,314)		(595)	(1,223)	
Current liabilities		(20)	(51)		(17)	(51)	
Non-current liabilities		(694)	(1,263)		(578)	(1,172)	
Liabilities		(714)	(1,314)		(595)	(1,223)	

17. Financial instruments classification

	March 31, 2016			December 31, 2015 Derivatives			
Financial assets	Loans and receivables or amortized cost	At fair value through net income	Total	Loans and receivables or amortized cost	At fair value through net income	designated as hedge accounting	Total
Current							
Cash and cash equivalents	3,782		3,782	3,591			3,591
Financial investments	27		27	28			28
Derivative financial							
instruments		141	141		121		121

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Accounts receivable	2,553		2,553	1,476			1,476
Related parties	100		100	70			70
	6,462	141	6,603	5,165	121		5,286
Non-current							
Derivative financial							
instruments		170	170		93		93
Loans	194		194	188			188
Related parties				1			1
•	194	170	364	189	93		282
Total of financial assets	6,656	311	6,967	5,354	214		5,568
	·		·				•
Financial liabilities							
Current							
Suppliers and contractors	3,147		3,147	3,365			3,365
Derivative financial							
instruments		1,629	1,629		2,023	53	2,076
Loans and borrowings	3,255		3,255	2,506			2,506
Related parties	732		732	475			475
•	7,134	1,629	8,763	6,346	2,023	53	8,422
Non-current	·		·		·		·
Derivative financial							
instruments		1,225	1,225		1,429		1,429
Loans and borrowings	28,215		28,215	26,347			26,347
Related parties	123		123	213			213
Participative stockholders							
debentures		502	502		342		342
Others (i)		168	168		141		141
	28,338	1,895	30,233	26,560	1,912		28,472
Total of financial							
liabilities	35,472	3,524	38,996	32,906	3,935	53	36,894

⁽i) See note 18(a).

18. Fair value estimate

a) Assets and liabilities measured and recognized at fair value:

		March 31, 2016			December 31, 2015	
	Level 2	Level 3	Total	Level 2	Level 3	Total
Financial assets						
Derivative financial instruments	311		311	214		214
Total	311		311	214		214
Financial liabilities						
Derivative financial instruments	2,854		2,854	3,505		3,505
Participative stockholders debentures	502		502	342		342
Others (minimum return instrument)		168	168		141	141
Total	3,356	168	3,524	3,847	141	3,988

There are no changes in the methods and techniques of evaluation of instruments disclosed above in the financial statements as at December 31, 2015.

b) Fair value of financial instruments not measured at fair value

The fair values and carrying amounts of loans (net of interest) are as follows:

Financial liabilities	Balance	Fair value	Level 1	Level 2
March 31, 2016				
Debt principal	30,871	28,504	12,316	16,188
December 31, 2015				
Debt principal	28,229	26,233	12,297	13,936

19. Derivative financial instruments

a) Derivatives effects on balance sheet

	Assets				
	March 3		December	31, 2015	
	Current	Non-current	Current	Non-current	
Derivatives designated as economic hedge					
Foreign exchange and interest rate risk					
CDI & TJLP vs. US\$ fixed and floating rate					
swap	99	26	69		
IPCA swap	4	58	2	16	
Eurobonds swap	2				
Pré-dolar swap	1				
	106	84	71	16	
Commodities price risk					
Nickel	35	8	50	11	
	35	8	50	11	
Others		78		66	
		78		66	
Total	141	170	121	93	
	2:	3			
	۷.	<i>J</i>			

			Liabilities		
	March 3	*	December 31	er 31, 2015	
	Current	Non-current	Current	Non-current	
Derivatives designated as economic hedge					
Foreign exchange and interest rate risk					
CDI & TJLP vs. US\$ fixed and floating rate					
swap	791	944	799	1,131	
IPCA swap	22	109	21	101	
Eurobonds swap	5	14	146	29	
Pre dollar swap	24	45	93	72	
·	842	1,112	1,059	1,333	
Commodities price risk					
Nickel	31	7	40	10	
Bunker oil	756		924		
	787	7	964	10	
Others		106		86	
		106		86	
Derivatives designated as cash flow hedge					
accounting					
Bunker oil			50		
Foreign exchange			3		
			53		
Total	1,629	1,225	2,076	1,429	

b) Effects of derivatives on the income statement, cash flow and other comprehensive income

	Gain (loss) reco	gnized in the	nree-month period Financial set inflows(out	tlement	Gain(loss) recognized in othe comprehensive income	
	2016	2015	2016	2015	2016	2015
Derivatives designated as economic hedge						
Foreign exchange and interest rate risk						
CDI & TJLP vs. US\$ fixed and floating rate						
swap	394	(950)	(43)	(344)		
IPCA swap	42	(73)	1	4		
Eurobonds swap	16	(151)	(142)			
Pre dollar swap	34	(89)	(73)	(2)		
	486	(1,263)	(257)	(342)		
Commodities price risk						
Nickel	(24)	(8)	(17)	(15)		
Bunker oil	(14)	(49)	(182)	(155)		
	(38)	(57)	(199)	(170)		
Others	(5)	(5)				

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Derivatives designated as cash flow hedge						
accounting						
Bunker oil		(120)	(51)	(130)		116
Foreign exchange	(3)	(15)	(3)	(15)	2	(1)
	(3)	(135)	(54)	(145)	2	115
Total	440	(1,460)	(510)	(657)	2	115

Related to the effects of derivatives in the Income statements, the Company recognized as costs of goods sold and financial results the amounts of US\$120 and US\$1,340, respectively, for the 1st quarter of 2015. In 2016, all derivatives impacts were charged to financial results.

The maturities dates of the derivative financial instruments are as follows:

	Maturity dates
Currencies and interest rates	July 2023
Bunker oil	December 2016
Nickel	June 2018
Others	December 2027

Table	αf	Contents

Additional information about derivatives financial instruments

The risk of the derivatives portfolio is measured using the delta-Normal parametric approach, and considers that the future distribution of the risk factors and its correlations tends to present the same statistic properties verified in the historical data. The value at risk estimate considers a 95% confidence level for a one-business day time horizon.

There was no cash amount deposited as margin call regarding derivative positions on March 31, 2016. The derivative positions described in this document did not have initial costs associated.

The following tables detail the derivatives positions for Vale and its controlled companies as of March 31, 2016, with the following information: notional amount, fair value including credit risk, gains or losses in the period, value at risk and the fair value breakdown by year of maturity.

a) Foreign exchange and interest rates derivative positions

(i) Protection programs for the R\$ denominated debt instruments

In order to reduce cash flow volatility, swap transactions were implemented to convert into US\$ the cash flows from certain debt instruments denominated in R\$ with interest rates linked mainly to CDI, TJLP and IPCA. In those swaps, Vale pays fixed or floating rates in US\$ and receives payments in R\$ linked to the interest rates of the protected debt instruments.

The swap transactions were negotiated over-the-counter and the protected items are the cash flows from debt instruments linked to R\$. These programs transform into US\$ the obligations linked to R\$ to achieve a currency offset in the Company s cash flows, by matching its receivables - mainly linked to US\$ - with its payables.

			Financial Settlement	
	Notional	Fair value	Inflows (Outflows)	Value at Risk Fair value by year
]	Flow March 31D20d16ber 31, 2011dex Average rate	March 31, 2016 December 31, 2015	March 31, 2016	March 31, 2016 2016 2017 2018 2019+
	, ,			
		(681) (783)	20	43 (440) (31) (210)
		` ′		` ' ` ' ` '

CDI vs.									
US\$ fixed									
rate swap									
Receivable	R\$ 5,739 R\$ 5,239	CDI	107.57%						
Payable	US\$ 2,399 US\$ 2,288	Fix	3.46%						
TJLP vs.									
US\$ fixed									
rate swap				(872)	(1,015)	(63)	71 (161)	(253) (1:	25) (334)
Receivable		TJLP							
	R\$ 5,180 R\$ 5,484	+	1.31%						
Payable	US\$ 2,486 US\$ 2,611	Fix	1.69%						
•									
TJLP vs.									
US\$ floating									
rate swap				(57)	(63)	(0)	5 (3)	(4)	(5) (45)
Receivable		TJLP							
	R\$ 32 R\$ 267	+	0.92%						
Payable		Libor							
	US\$ 155 US\$ 156	+	-1.21%						
R\$ fixed rate	e								
vs. US\$ fixed	l								
rate swap				(68)	(165)	(73)	21 (21)	(7)	7 (46)
Receivable	R\$ 1,139 R\$ 1,356	Fix	7.32%	` ′	` /	` ′	` ′		
Payable	US\$ 398 US\$ 528	Fix	-0.83%						
.,									
IPCA vs.									
US\$ fixed									
rate swap				(84)	(105)	1	11	3 2	.3 (90)
Receivable		IPCA		(-)	()				(, , ,
	R\$ 1,000 R\$ 1,000	+	6.55%						
Payable	US\$ 434 US\$ 434	Fix	3.98%						
1 4 3 4010	054 151 054 151	1 1.1	21,7070						
IPCA vs.									
CDI swap				16	2		0.4 (21)	(16)	13) 66
Receivable		IPCA		10	_		J. (21)	(10)	20) 00
11000114010	R\$ 1,350 R\$ 1,350	+	6.62%						
Payable	US\$ 1,350 US\$ 1,350	CDI	98.58%						
i ayabic	034 1,330 034 1,330	CDI	90.30 /0						

(ii) Protection program for EUR denominated debt instruments

In order to reduce the cash flow volatility, swap and forward transactions were implemented to convert into US\$ the cash flows from certain debt instruments issued in Euros by Vale. In those swaps, Vale receives fixed rates in EUR and pays fixed rates in US\$. And in those forwards only the principal amount of the debt is converted from EUR to US\$.

The swap and forward transactions were negotiated over-the-counter and the protected items are the cash flows from debt instruments linked to EUR. The financial settlement inflows/outflows are offset by the protected items losses/gains due to EUR/US\$ exchange rate.

Flow	March	Notion 3 D e 201 6		M dex	Average rate		r value December 31, 2015	Financial Settlement Inflows (Outflows) March 31, 2016	Value at Risk March 31, 2016	Fair valu 2016 2017		
EUR fi	xed											
rate vs.	•											
US\$ fix	ked											
rate sw	ap					(19)	(175)	(141)) 18	(5)	(4)	(10)
Receiva	able	500	1,000	Fix	3.759	<i>%</i>						

Pavable	US\$ 613	3 US\$ 1.302	Fix	4.29%

Flow	Mar	Notional rch 31, 2 (D6 cember 31, 201	8	Average rate (USD/EUR)		r value December 31, 2015	Financial Settlement Inflows (Outflows) March 31, 2016	Value at RisFair valu March 31, 2016 2016	
Forwa	rds	500	В	1.143	2			6.4	2
					25				

(iii) Foreign exchange hedging program for disbursements in CAD

In order to reduce the cash flow volatility, forward transactions were implemented to mitigate the foreign exchange exposure that arises from the currency mismatch between revenues denominated in US\$ and disbursements denominated in CAD.

The forward transactions were negotiated over-the-counter and the protected item is part of the CAD denominated disbursements. The financial settlement inflows/outflows are offset by the protected items losses/gains due to CAD/US\$ exchange rate. This program is classified under the hedge accounting requirements, and it was settled in this quarter.

					Financial Settlement		Fair value
	Notional	Bought /	Average rate	Fair value	Inflows (Outflows)	Value at Risk	by year
Flow	March 31, 2016 December 31, 2015	Sold	(CAD/USD) I	March 31, 2016 December 31, 2015	March 31, 2016	March 31, 2016	2016
Forwards	CAD 10	В	1.028	(2)			
				` /			

b) Commodities derivative positions

(i) Bunker Oil purchase cash flows protection program

In order to reduce the impact of bunker oil price fluctuation on maritime freight hiring/supply and, consequently, reducing the company s cash flow volatility, bunker oil derivatives were implemented. These transactions are usually executed through forward purchases and zero cost-collars.

The derivative transactions were negotiated over-the-counter and the protected item is part of the Vale s costs linked to bunker oil prices. The financial settlement inflows/outflows are offset by the protected items losses/gains due to bunker oil prices changes.

					Financial settlement		Fair value	
	Notional (ton)	Bought /	Average strike	Fair value	Inflows (Outflows)	Value at Risk	by year	
Flow	March 31, 2016 December 31, 2015	Sold	(US\$/ton)	March 31, 2016 December 31, 2015	March 31, 2016	March 31, 2016	2016	

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Bunker Oil									
protection									
Forwards	1,410,000	1,867,500	В	513	(446)	(577)	(151)	11	(446)
Call									
options	1,507,500	2,041,500	В	383	0.16	0.02		0.07	0.16
Put options	1,507,500	2,041,500	S	308	(199)	(297)	(93)	11	(199)
Total					(644)	(873)			(644)

As at March 31, 2016 and December 31, 2015, excludes US\$112 and US\$102, respectively, of transactions in which the financial settlement occurs subsequently of the closing month.

(ii) Protection programs for base metals raw materials and products

In the operational protection program for nickel sales at fixed prices, derivatives transactions were implemented to convert into floating prices the contracts with clients that required a fixed price, in order to keep nickel revenues exposed to nickel price fluctuations. Those operations are usually implemented through the purchase of nickel forwards, which are unwound before the original maturity in order to match the settlement dates of the commercial contracts in which the prices were fixed.

In the operational protection program for the purchase of raw materials and products, derivatives transactions were implemented, usually through the sale of nickel and copper forward or futures, in order to reduce the mismatch between the pricing period of purchases (concentrate, cathode, sinter, scrap and others) and the pricing period of the final product sales to the clients.

The derivative transactions are negotiated at London Metal Exchange or over-the-counter and the protected item is part of Vale s revenues and costs linked to nickel and copper prices. The financial settlement inflows/outflows are offset by the protected items losses/gains due to nickel and copper prices changes.

Flow	Notional (ton) March 31, 2016 December	31, 2015		Average strike (US\$/ton)		r value December 31, 2015	Financial settlement Inflows (Outflows) March 31, 2016	Value at Risk Fair val March 31, 2016 2016 2	
Fixed price sales protection									
Nickel forwards	16,102	16,917	В	10,892	(35)) (46)	(18)	5 (24)	(11)
Raw material purchase protection									
Nickel forwards	90	118	S	8,486	0.00	0.10	0.13	0.02 0.00	
Copper forwards Total	398	385		4,598) 0.09	0.12	0.04 (0.09) (0.09)	

c) Silver Wheaton Corp. warrants

The company owns warrants of Silver Wheaton Corp. (SLW), a Canadian company with stocks negotiated in Toronto Stock Exchange and New York Stock Exchange. Such warrants configure American call options and were received as part of the payment regarding the sale of part of gold payable flows produced as a sub product from Salobo copper mine and some nickel mines in Sudbury.

Flow		(quantity) December 31, 2015	8	Average strike (US\$/share)		r value December 31, 2015	Financial settlement Inflows (Outflows) March 31, 2016	Value at Risk March 31, 2016	Fair value by year 2023
Call options	10,000,000	10,000,000	В	65	15	7		2	15

d) Call options from debentures

The company has debentures in which lenders have call options of a specified quantity of Ferrovia Norte Sul ordinary shares, later changed to VLI SA shares. The call option s strike price is given by the debentures remaining notional in each exercise date.

Flow	Notional (quantity) March 31, 2016 December		0	Average strike (R\$/share)		r value December 31, 2015	Financial settlement Inflows (Outflows) March 31, 2016	Value at Risk March 31, 2016	Fair value by year 2027
Call options	140,239	1 40,239	S	8,570	(39)	(39)		2	(39)

e) Options related to Minerações Brasileiras Reunidas S.A. (MBR) shares

The Company entered into a contract that has options related to MBR shares. Under certain restrict and contingent conditions, which are beyond the buyer s control, the contract has a clause that gives the buyer the right to sell back its stake to the Company. It this case, the Company could settle through cash or shares. On the other hand, the Company has the right to buy back this non-controlling interest in the subsidiary.

Financial settlement Fair value

Flow	Notional (quantity, in millions March 31, 2016 December 31, 2				r value December 31, 2015	Inflows (Outflows) March 31, 2016		
Options	2,139 2,	139 B/S	1.8	(3)	15		6	(3)

f) Embedded derivatives in commercial contracts

The Company has some nickel concentrate and raw materials purchase agreements in which there are provisions based on nickel and copper future prices behavior. These provisions are considered as embedded derivatives.

Flow	Notional (to March 31, 2016 Decen	- /	Bought / Sold	Average strike (US\$/ton)		r value December 31, 2015	Financial settlement Inflows (Outflows) March 31, 2016	Value at Risk March 31, 2016	Fair value by year 2016
Nickel									
forwards	5,799	3,877	S	8,543	(0.3)	3.0			(0.3)
Copper									
forwards	4,325	5,939	S	4,653	(0.4)	2.0			(0.4)
Total					(0.6)	5.0		2.1	(0.6)

The Company has also a natural gas purchase agreement in which there's a clause that defines that a premium can be charged if the Company s pellet sales prices trade above a pre-defined level. This clause is considered an embedded derivative.

Flow		olume/month) December 31, 2015	8	Average strike (US\$/ton)		r value December 31, 2015	Financial settlement Inflows (Outflows) March 31, 2016	Value at Risk March 31, 2016		•	
Call											
options	746,667	746,667	S	179	(1.4)			0.9	(0.0)	(0.0)	(1

g) Sensitivity analysis of derivative financial instruments

The following tables present the potential value of the instruments given hypothetical stress scenarios for the main market risk factors that impact the derivatives positions. The scenarios were defined as follows:

- Scenario I: fair value calculation considering market prices as of March 31, 2016
- Scenario II: fair value estimated considering a 25% deterioration in the associated risk variables
- Scenario III: fair value estimated considering a 50% deterioration in the associated risk variables

Instrument	Instrument s main risk events	Scenario I	Scenario II	Scenario III
CDI vs. US\$ fixed rate swap	R\$ depreciation US\$ interest rate inside Brazil decrease Brazilian interest rate increase	(681) (681) (681)	(1,293) (697) (684)	(1,905) (713) (687)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
TJLP vs. US\$ fixed rate swap Protected item: R\$ denominated debt	R\$ depreciation US\$ interest rate inside Brazil decrease Brazilian interest rate increase TJLP interest rate decrease	(872) (872) (872) (872)	(1,473) (910) (946) (918)	(2,075) (950) (1,013) (966)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
TJLP vs. US\$ floating rate swap	R\$ depreciation US\$ interest rate inside Brazil decrease Brazilian interest rate increase TJLP interest rate decrease	(57) (57) (57) (57)	(92) (61) (62) (60)	(127) (64) (67) (64)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.	, ,	` ,
R\$ fixed rate vs. US\$ fixed rate swap	R\$ depreciation US\$ interest rate inside Brazil decrease Brazilian interest rate increase	(68) (68) (68)	(169) (83) (99)	(271) (98) (125)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
IPCA vs. US\$ fixed rate swap	R\$ depreciation US\$ interest rate inside Brazil decrease Brazilian interest rate increase IPCA index decrease	(84) (84) (84) (84)	(199) (93) (118) (103)	(315) (103) (147) (121)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		

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IPCA vs. CDI swap	Brazilian interest rate increase	16	(35)	(78)
	IPCA index decrease	16	(13)	(40)
Protected item: R\$ denominated debt linked to				
IPCA	IPCA index decrease	n.a.	13	40
EUR fixed rate vs. US\$ fixed rate swap	EUR depreciation	(19)	(197)	(374)
	Euribor increase	(19)	(25)	(32)
	US\$ Libor decrease	(19)	(34)	(50)
Protected item: EUR denominated debt	EUR depreciation	n.a.	197	374
EUR Forward	EUR depreciation	2	(140)	(282)
	Euribor increase	2	2	1
	US\$ Libor decrease	2	1	0
Protected item: EUR denominated debt	EUR depreciation	n.a.	140	282

Instrument	Instrument s main risk events	Scenario I	Scenario II	Scenario III
Bunker Oil protection Forwards and options Protected item: Part of costs linked to bunker oil	Bunker Oil price decrease	(644)	(772)	(901)
prices	Bunker Oil price decrease	n.a.	772	901
Nickel sales fixed price protection Forwards Protected item: Part of nickel revenues with	Nickel price decrease	(35)	(70)	(104)
fixed prices	Nickel price fluctuation	n.a.	70	104
Purchase protection program Nickel forwards Protected item: Part of costs linked to nickel	Nickel price increase	0.0	(0.2)	(0.4)
prices	Nickel price increase	n.a.	0.2	0.4
Copper forwards Protected item: Part of costs linked to copper	Copper price increase	(0.1)	(0.6)	(1.0)
prices	Copper price increase	n.a.	0.6	1.0
SLW warrants	SLW stock price decrease	15	6	1
VLI call options	VLI stock value increase	(38)	(62)	(86)
Options regarding non-controlling interest in subsidiary	Subsidiary stock value increase	5	(48)	(75)
Instrument	Main risks	Scenario I	Scenario II	Scenario III
Embedded derivatives - Raw material purchase (ni		(0.3)	(12.9)	,
Embedded derivatives - Raw material purchase (co		(0.4)	(5.7)	(11.1)
Embedded derivatives - Gas purchase	Pellet price increase	(1.4)	(2.7)	(4.6)

h) Financial counterparties ratings

The transactions of derivative instruments, cash and cash equivalents as well as investments are held with financial institutions whose exposure limits are periodically reviewed and approved by the delegated authority. The financial institutions credit risk is performed through a methodology that considers, among other information, ratings provided by international rating agencies.

The table below presents the ratings in foreign currency published by agencies Moody $\,$ s and S&P regarding the main financial institutions that we had outstanding positions as of March 31, 2016.

Long term ratings by counterparty	Moody s	S&P
ANZ Australia and New Zealand Banking	Aa2	AA-
Banco Bradesco	Ba3	BB
Banco de Credito del Peru	Baa1	BBB
Banco do Brasil	Ba3	BB
Banco do Nordeste	Ba3	BB
Banco Safra	Ba3	BB
Banco Santander	Ba3	BB
Banco Votorantim	Ba3	BB
Bank of America	Baa1	BBB+
Bank of Nova Scotia	Aa3	A+
Bank of Tokyo Mitsubishi UFJ	A1	A
Banpara	Ba3	BB-
Barclays	Baa3	BBB
BBVA	A3	BBB+
BNP Paribas	A1	A
BTG Pactual	Ba3	B+
Caixa Economica Federal	Ba3	BB
Citigroup	Baa1	BBB+
Credit Agricole	A2	A
Deutsche Bank	A2	BBB+
Goldman Sachs	A3	BBB+
HSBC	A1	A
Intesa Sanpaolo Spa	A3	BBB-
Itau Unibanco	Ba3	BB
JP Morgan Chase & Co	A3	A-
Macquarie Group Ltd	A3	BBB
Morgan Stanley	A3	BBB+
National Australia Bank NAB	Aa2	AA-
Royal Bank of Canada	Aa3	AA-
Societe Generale	A2	A
Standard Bank Group	Baa3	
Standard Chartered	A1	BBB+

i) Market curves

The curves used on the pricing of derivatives instruments were developed based on data from BM&F, Central Bank of Brazil, London Metals Exchange and Bloomberg.

(i) Products

Nickel

Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)
SPOT	8,280	SEP16	8,531	MAR17	8,595
APR16	8,462	OCT16	8,543	MAR18	8,711
MAY16	8,476	NOV16	8,556	MAR19	8,813
JUN16	8,490	DEC16	8,567	MAR20	8,899
JUL16	8,503	JAN17	8,577		
AUG16	8.519	FEB17	8,586		

Copper

Maturity	Price (US\$/lb)	Maturity	Price (US\$/lb)	Maturity	Price (US\$/lb)
SPOT	2.19	SEP16	2.19	MAR17	2.19
APR16	2.21	OCT16	2.19	MAR18	2.19
MAY16	2.20	NOV16	2.19	MAR19	2.19
JUN16	2.20	DEC16	2.19	MAR20	2.19
JUL16	2.20	JAN17	2.19		
AUG16	2.20	FEB17	2.19		

Bunker Oil

Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)
SPOT	172	SEP16	192	MAR17	210
APR16	175	OCT16	195	MAR18	236

MAY16	178	NOV16	198	MAR19	274
JUN16	180	DEC16	201	MAR20	322
JUL16	184	JAN17	205		
AUG16	188	FEB17	208		

(ii) Foreign exchange and interest rates

US\$-Brazil Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
05/02/16	3.73	03/01/17	3.25	07/01/19	3.34
06/01/16	3.65	04/03/17	3.23	10/01/19	3.37
07/01/16	3.41	07/03/17	3.26	01/02/20	3.45
08/01/16	3.35	10/02/17	3.22	04/01/20	3.52
09/01/16	3.20	01/02/18	3.20	07/01/20	3.65
10/03/16	3.12	04/02/18	3.17	10/01/20	3.86
11/01/16	3.11	07/02/18	3.19	01/04/21	4.01
12/01/16	3.11	10/01/18	3.21	07/01/21	4.09
01/02/17	3.20	01/02/19	3.23	01/03/22	4.36
02/01/17	3.24	04/01/19	3.29	01/02/23	4.81

US\$ Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
1M	0.44	6M	0.71	11M	0.75
2M	0.52	7M	0.72	12M	0.75
3M	0.63	8M	0.73	2Y	0.86
4M	0.67	9M	0.74	3Y	0.98
5M	0.69	10M	0.74	4Y	1.11

TJLP

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
05/02/16	7.50	03/01/17	7.50	07/01/19	7.50
06/01/16	7.50	04/03/17	7.50	10/01/19	7.50
07/01/16	7.50	07/03/17	7.50	01/02/20	7.50
08/01/16	7.50	10/02/17	7.50	04/01/20	7.50
09/01/16	7.50	01/02/18	7.50	07/01/20	7.50
10/03/16	7.50	04/02/18	7.50	10/01/20	7.50
11/01/16	7.50	07/02/18	7.50	01/04/21	7.50
12/01/16	7.50	10/01/18	7.50	07/01/21	7.50
01/02/17	7.50	01/02/19	7.50	01/03/22	7.50
02/01/17	7.50	04/01/19	7.50	01/02/23	7.50

BRL Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
05/02/16	14.14	03/01/17	13.83	07/01/19	13.92
06/01/16	14.12	04/03/17	13.80	10/01/19	13.93
07/01/16	14.10	07/03/17	13.77	01/02/20	13.93
08/01/16	14.06	10/02/17	13.73	04/01/20	13.92
09/01/16	14.06	01/02/18	13.72	07/01/20	13.91
10/03/16	14.03	04/02/18	13.78	10/01/20	13.90
11/01/16	13.97	07/02/18	13.80	01/04/21	13.91
12/01/16	13.92	10/01/18	13.83	07/01/21	13.93
01/02/17	13.88	01/02/19	13.86	01/03/22	13.94
02/01/17	13.85	04/01/19	13.89	01/02/23	14.05

Implicit Inflation (IPCA)

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
05/02/16	7.43	03/01/17	7.13	07/01/19	6.92
06/01/16	7.41	04/03/17	7.11	10/01/19	6.92
07/01/16	7.39	07/03/17	7.02	01/02/20	6.92
08/01/16	7.36	10/02/17	6.93	04/01/20	6.90
09/01/16	7.36	01/02/18	6.87	07/01/20	6.89
10/03/16	7.32	04/02/18	6.89	10/01/20	6.88
11/01/16	7.27	07/02/18	6.88	01/04/21	6.89
12/01/16	7.23	10/01/18	6.89	07/01/21	6.90
01/02/17	7.19	01/02/19	6.89	01/03/22	6.92
02/01/17	7.16	04/01/19	6.91	01/02/23	7.03

EUR Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
1M	-0.33	6M	-0.18	11M	-0.15
2M	-0.28	7M	-0.17	12M	-0.15
3M	-0.25	8M	-0.16	2Y	-0.04
4M	-0.22	9M	-0.16	3Y	0.00
5M	-0.19	10M	-0.15	4Y	0.02

CAD Interest Rate

31

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
1M	0.90	6M	1.01	11M	0.89
2M	0.90	7M	0.97	12M	0.88
3M	0.90	8M	0.95	2Y	0.89
4M	0.95	9M	0.92	3Y	0.91
5M	0.99	10M	0.91	4Y	0.95

Currencies - Ending rates

CAD/US\$	0.7709	US\$/BRL	3.5589	EUR/US\$	1.1380

20. Stockholders equity

a) Share capital

At March 31, 2016 and December 31, 2015, the share capital was US\$61,614 corresponding to 5,244,316,120 shares issued and fully paid without par value.

		March 31, 2016	
	ON	PNA	Total
Stockholders			
Valepar S.A.	1,716,435,045	20,340,000	1,736,775,045
Brazilian Government (Golden Share)		12	12
Foreign investors - ADRs	794,340,784	664,290,644	1,458,631,428
FMP - FGTS	78,297,758		78,297,758
PIBB - BNDES	1,186,115	1,098,260	2,284,375
BNDESPar	206,378,882	66,185,272	272,564,154
Foreign institutional investors in local market	277,441,505	710,319,270	987,760,775
Institutional investors	75,906,803	121,112,309	197,019,112
Retail investors in Brazil	35,666,108	384,376,159	420,042,267
Shares outstanding	3,185,653,000	1,967,721,926	5,153,374,926
Shares in treasury	31,535,402	59,405,792	90,941,194
Total issued shares	3,217,188,402	2,027,127,718	5,244,316,120
Amounts per class of shares (in millions)	38,525	23,089	61,614
Total authorized shares	7,200,000,000	3,600,000,000	10,800,000,000

b) Basic and diluted earnings per share

Basic and diluted earnings per share are as follows:

	Three-month period end	ed March 31
	2016	2015
Net income (loss) attributable to Vale s stockholders	1,776	(3.118)

Basic and diluted earnings per share:		
Income (loss) available to preferred stockholders	678	(1,191)
Income (loss) available to common stockholders	1,098	(1,927)
Total	1,776	(3,118)
Weighted average number of shares outstanding (thousands of shares) - preferred shares	1,967,722	1,967,722
Weighted average number of shares outstanding (thousands of shares) - common shares	3,185,653	3,185,653
Total	5,153,375	5,153,375
Basic and diluted earnings per share		
Preferred share	0.34	(0.61)
Common share	0.34	(0.61)
32		
32		

21. Costs and expenses by nature

a) Cost of goods sold and services rendered

	Three-month period en	ded March 31
	2016	2015
	505	506
Personnel	505	526
Material and service	788	958
Fuel oil and gas	307	307
Maintenance	621	655
Energy	162	141
Acquisition of products	83	253
Depreciation and depletion	810	912
Freight	500	770
Others	473	646
Total	4,249	5,168
Cost of goods sold	4,142	5,022
Cost of services rendered	107	146
Total	4,249	5,168

b) Selling and administrative expenses

	Three-month period en 2016	ded March 31 2015
Personnel	51	84
Services (consulting, infrastructure and others)	16	29
Advertising and publicity	1	3
Depreciation and amortization	23	30
Travel expenses	1	3
Taxes and rents	4	6
Others	23	40
Total	119	195

c) Others operational expenses (incomes), net

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	Three-month period ended March 31		
	2016	2015	
Provision for litigation	31	(17)	
Provision for loss with VAT credits (ICMS)	30	41	
Provision for profit sharing program		21	
Provision (reversal) for disposal of materials and inventories	(71)	63	
Gold stream transaction		(230)	
Result on sale or disposal of property, plant and equipment and intangible	9	15	
Others	36	61	
Total	35	(46)	

22. Financial result

	Three-month period e	nded March 31
	2016	2015
Financial expenses		
Loans and borrowings gross interest	(412)	(391)
Capitalized loans and borrowing costs	177	196
Labor, tax and civil lawsuits	(21)	(34)
Derivative financial instruments	(58)	(1,340)
Indexation and exchange rate variation (a)	(1,170)	(5,301)
Participative stockholders debentures	(116)	275
Expenses of REFIS	(114)	(144)
Others	(144)	(121)
	(1,858)	(6,860)
Financial income		
Short-term investments	42	26
Derivative financial instruments	498	
Indexation and exchange rate variation (b)	2,725	2,282
Others	18	42
	3,283	2,350
Financial results, net	1,425	(4,510)
Summary of indexation and exchange rate variation		
Loans and borrowings	2,638	(5,014)
Others	(1,083)	1,995
Net (a) + (b)	1,555	(3,019)

23. Deferred revenue - Gold stream

In 2013 and 2015, the Company entered into gold stream transactions with Silver Wheaton Corp. (SLW) to sell part of the gold extracted during the life of the mine as a by-product of Salobo copper mine and Sudbury nickel mines. The Company received up-front cash proceeds, which were initially recognized as deferred revenue. This transaction was bifurcated into two identifiable components: (i) the sale of the mineral rights and, (ii) the services for gold extraction on the portion in which Vale operates as an agent for SLW gold extraction.

In 2015, the result of the sale of the mineral rights of US\$230 was recognized in the income statement of 2015 as other operating expenses, net and the portion related to the provision of future services for gold extraction was recorded as deferred revenue (liability) in the amount of US\$532. During the three-month period ended March 31, 2016 and 2015, the Company recognized in income statement US\$34 and US\$15, respectively, related to rendered services of the gold extraction.

24. Commitments

a) Base metals operations In March 2016, Vale Canada Limited purchased the equity interest held by Sumic Nickel Netherland B.V. in Vale Nouvelle-Calédonie S.A.S. for US\$135.

There have been no other material changes to the commitments of the base metals operations disclosed in the financial statements as at December 31, 2015, except for letters of credit and guarantees in the amount of US\$1,030 (US\$991 at December 31, 2015) associated with items such as environment reclamation, asset retirement obligation commitments, insurance, electricity commitments, post-retirement benefits, community service commitments and import and export duties.

b) **Participative stockholders debentures** - The Company paid as semiannual remuneration the amount of US\$39 for the three-month period ended March 31, 2015. At April 1st, 2016 (subsequently event), the company has paid the semiannual remuneration to stockholders debentures the amount of US\$36.

c) Operating lease and purchase obligations - The future payment commitments for operating lease and purchase obligations are as follows:

2016	46
2017	50
2018	53
2019	45
2020 and thereafter	48
Total minimum payments required	242

d) Guarantees provided - At March 31, 2016, corporate guarantees provided by Vale (within the limit of its direct or indirect interest) for the companies Norte Energia S.A. and Companhia Siderúrgica do Pecém S.A. totaled US\$309 and US\$1,249, respectively. Due to the conclusion of the energy generation assets transaction (note 6), the guarantee of Norte Energia S.A. is shared with Cemig GT.

25. Related parties

Transactions with related parties are made by the Company at arm's-length, observing the price and usual market conditions and therefore do not generate any undue benefit to their counterparties or loss to the Company.

In the normal course of operations, Vale enters into contracts with related parties (subsidiaries, associates, joint ventures and stockholders), related to the sale and purchase of products and services, loans, leasing of assets, sale of raw material and railway transportation services.

The balances of these related party transactions and their effects on the financial statements are as follows:

			Ass	sets			
	March 31,	2016			December 3	1, 2015	
Cash and							
cash	Derivative			Cash and	Derivative		
	financial	Accounts	Related	cash	financial	Accounts	Related
eguivalents	instruments	receivable	parties	eguivalents	instruments	receivable	parties

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Others Total	297	29	42 208	100	432	82	24 78	17 71
VLI S.A.			119	10 41			24	10
S.A.			12	1.0			25	1.0
VLI Operações Portuárias								
VLI Multimodal S.A.			5				9	
MRS Logística S.A.				19				17
Mitsui & Co., Ltd.			1				1	
Ferrovia Norte Sul S.A.			6				3	
Baia de São Marcos			21				15	
Consórcio de Rebocadores da								
de Pelotização				10				9
Companhia Nipo-Brasileira								
de Pelotização				9				8
Companhia Ítalo-Brasileira								
Pelotização				4			1	4
Hispano-Brasileira de								
Companhia								
Pelotização				6				6
Coreano-Brasileira de								
Companhia				•				
Baovale Mineração S.A.	231	22	2	1	373	10		
Banco Bradesco S.A. Banco do Brasil S.A.	43 254	22			37 395	66 16		

	Liabilities D. J. 2017								
	Derivative	March 31, Suppliers	2016		Derivative	December 3 Suppliers	December 31, 2015		
	financial instruments	and contractors	Related parties	Loans and borrowings	financial instruments	and contractors	Related parties	Loans and borrowings	
Aliança Geração de									
Energia S.A.		13	35			11			
Baovale Mineração S.A.		12				8			
Banco do Brasil S.A.	247			2,873	250			2,625	
Banco Bradesco S.A.	168			467	205			370	
BNDES	39			4,202	39			4,066	
BNDES Participações S.A.				416				371	
Companhia									
Coreano-Brasileira de									
Pelotização		21	62			4	70		
Companhia									
Hispano-Brasileira de									
Pelotização		14	50			37	7		
Companhia İtalo-Brasileira									
de Pelotização		11	63			3	64		
Companhia Nipo-Brasileira									
de Pelotização		39	103			9	112		
Consórcio de Rebocadores									
da Baía de São Marcos		11				8			
Ferrovia Centro-Atlântica									
S.A.			75				68		
Mitsui & Co., Ltd.		10				11			
MRS Logística S.A.		24				23			
Sumic Nickel Netherland									
B.V			352				352		
VLI S.A.		1	90						
Others		27	25			22	15		
Total	454	183	855	7,958	494	136	688	7,432	

	Three-month period ended March 31					
	Net operating revenue	2016 Costs and expenses	Financial result	Net operating revenue	2015 Costs and expenses	Financial result
Banco Bradesco S.A. (i)			(18)			(84)
Banco do Brasil S.A. (i)			(36)			(136)
Baovale Mineração S.A.		(3)			(5)	
BNDES (i)			(46)			(17)
BNDES Participações S.A. (i)			(6)			(10)
Companhia Coreano-Brasileira de						
Pelotização		(18)			(16)	
Companhia Hispano-Brasileira de						
Pelotização		(10)			(12)	
Companhia Ítalo-Brasileira de Pelotização		(10)			(14)	

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Companhia Nipo-Brasileira de Pelotização		(33)			(25)	
Companhia Siderúrgica do Pecem	17					
Ferrovia Centro Atlântica S.A.	8	(5)		12	(12)	
Ferrovia Norte Sul S.A.	5			4		
Mitsui & Co., Ltd.	20			58		
MRS Logística S.A.		(63)			(119)	
Samarco Mineração S.A.				31		
VLI Operações Portuárias S.A.	29					
VLI S.A.	27			62		2
Others	9	(8)	1	18	(11)	2
Total	115	(150)	(105)	185	(214)	(243)

⁽i) Not include exchange rate variation.

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Executive Officer (Base Metals)

Marcelo Botelho Rodrigues Global Controller Director

Murilo Muller

Controllership Director

Dioni Brasil

Accounting Manager TC-CRC-RJ 083305/O-8

37

Table of Contents

Date: April 28, 2016

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)

By:

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