

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.

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

**Interim Financial Statements**

**March 31, 2016**

**IFRS**

Filed with the CVM, SEC and HKEx on

April 28, 2016

Table of Contents

**Vale S.A. Interim Financial Statements**

**Contents**

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

Table of Contents

<b>KPMG Auditores Independentes</b>	Central Tel 55 (21) 3515-9400
Av. Almirante Barroso, 52 - 4º	Fax
20031-000 - Rio de Janeiro, RJ - Brasil	55 (21) 3515-9000
Caixa Postal 2888	Internet
20001-970 - Rio de Janeiro, RJ - Brasil	<a href="http://www.kpmg.com.br">www.kpmg.com.br</a>

**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

Table of Contents**Condensed Consolidated Income Statement**

In millions of United States dollars, except as otherwise stated

	Notes	Three-month period ended March 31 2016	2015
Net operating revenue	3(c)	5,719	6,240
Cost of goods sold and services rendered	21(a)	(4,249)	(5,168)
<b>Gross profit</b>		<b>1,470</b>	<b>1,072</b>
<b>Operating (expenses) income</b>			
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
		<b>(316)</b>	<b>(532)</b>
Results on measurement or sale of non-current assets	6		193
<b>Operating income</b>		<b>1,154</b>	<b>733</b>
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
<b>Net income (loss) before income taxes</b>		<b>2,735</b>	<b>(4,030)</b>
<b>Income taxes</b>			
	15		
Current tax		(345)	(70)
Deferred tax		(610)	930
		<b>(955)</b>	<b>860</b>
<b>Net income (loss)</b>		<b>1,780</b>	<b>(3,170)</b>
Income (loss) attributable to noncontrolling interests		4	(52)
<b>Net income (loss) attributable to Vale's stockholders</b>		<b>1,776</b>	<b>(3,118)</b>
<b>Earnings per share attributable to Vale's stockholders:</b>			
<b>Basic and diluted earnings per share:</b>			
	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.





Table of Contents**Condensed Consolidated Statement of Comprehensive Income**

In millions of United States dollars

	Three-month period ended March 31	
	2016	2015
<b>Net income (loss)</b>	<b>1,780</b>	<b>(3,170)</b>
<b>Other comprehensive income (loss):</b>		
<b>Items that will not be reclassified subsequently to the income statement</b>		
<b>Cumulative translation adjustments</b>	<b>3,246</b>	<b>(9,494)</b>
<b>Retirement benefit obligations</b>		
Gross balance for the period	(85)	(101)
Effect of taxes	27	50
	<b>(58)</b>	<b>(51)</b>
<b>Total items that will not be reclassified subsequently to the income statement</b>	<b>3,188</b>	<b>(9,545)</b>
<b>Items that may be reclassified subsequently to the income statement</b>		
<b>Cumulative translation adjustments</b>		
Gross balance for the period	(1,601)	4,593
Effect of taxes	(148)	
	<b>(1,749)</b>	<b>4,593</b>
<b>Cash flow hedge</b>		
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)
	<b>2</b>	<b>113</b>
<b>Total of items that may be reclassified subsequently to the income statement</b>	<b>(1,747)</b>	<b>4,706</b>
<b>Total comprehensive income (loss)</b>	<b>3,221</b>	<b>(8,009)</b>
Comprehensive income (loss) attributable to noncontrolling interests	68	(58)
<b>Comprehensive income (loss) attributable to Vale's stockholders</b>	<b>3,153</b>	<b>(7,951)</b>

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

Table of Contents**Condensed Consolidated Cash Flow Statement**

In millions of United States dollars

	<b>Three-month period ended March 31</b>	
	<b>2016</b>	<b>2015</b>
<b>Cash flow from operating activities:</b>		
Net income (loss) before income taxes	2,735	(4,030)
<b>Adjustments for:</b>		
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
<b>Changes in assets and liabilities:</b>		
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)
<b>Cash generated from operations</b>	<b>696</b>	<b>2,048</b>
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)
<b>Net cash provided by (used in) operating activities</b>	<b>(508)</b>	<b>531</b>
<b>Cash flow from investing activities:</b>		
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
<b>Net cash used in investing activities</b>	<b>(1,390)</b>	<b>(1,684)</b>
<b>Cash flow from financing activities:</b>		
<b>Loans and borrowings (i)</b>		
Additions	3,200	1,342

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

Repayments	(1,158)	(301)
<b>Transactions with stockholders:</b>		
Dividends and interest on capital paid to noncontrolling interest	(4)	(3)
Transactions with noncontrolling stockholders	(17)	
<b>Net cash provided by financing activities</b>	<b>2,021</b>	<b>1,038</b>
<b>Increase (decrease) in cash and cash equivalents</b>		
	<b>123</b>	<b>(115)</b>
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)
<b>Cash and cash equivalents at end of the period</b>	<b>3,782</b>	<b>3,684</b>
<b>Non-cash transactions:</b>		
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.

Table of Contents**Condensed Consolidated Balance Sheet**

In millions of United States dollars

	Notes	March 31, 2016	December 31, 2015
<b>Assets</b>			
<b>Current assets</b>			
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
		<b>13,134</b>	<b>11,429</b>
Assets held for sale	5	4,091	4,044
		<b>17,225</b>	<b>15,473</b>
<b>Non-current assets</b>			
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
		<b>10,707</b>	<b>10,653</b>
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
		<b>78,047</b>	<b>73,019</b>
<b>Total assets</b>		<b>95,272</b>	<b>88,492</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
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		223	250

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

Provision for income taxes		167	241
Employee postretirement obligations	16	71	68
Asset retirement obligations		88	89
Others		1,191	648
		<b>11,305</b>	<b>10,438</b>
Liabilities associated with assets held for sale	5	94	107
		<b>11,399</b>	<b>10,545</b>
<b>Non-current liabilities</b>			
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
		<b>45,101</b>	<b>42,243</b>
<b>Total liabilities</b>		<b>56,500</b>	<b>52,788</b>
<b>Stockholders' equity</b>			
Equity attributable to Vale's stockholders	20	36,742	33,589
Equity attributable to noncontrolling interests		2,030	2,115
<b>Total stockholders' equity</b>		<b>38,772</b>	<b>35,704</b>
<b>Total liabilities and stockholders' equity</b>		<b>95,272</b>	<b>88,492</b>

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

Table of Contents**Condensed Consolidated Statement of Changes in Equity**

In millions of United States dollars

	Share capital	Results on conversion of shares	Results from operation with noncontrolling interest	Profit reserves	Treasury stocks	Unrealized fair value gain (losses)	Cumulative translation adjustments	Retained earnings	Equity attributable to Vale s stockholders	Equity attributable to noncontrolling interests	Total stockholder equity
<b>Balance at December 31, 2015</b>	<b>61,614</b>	<b>(152)</b>	<b>(702)</b>	<b>985</b>	<b>(1,477)</b>	<b>(992)</b>	<b>(25,687)</b>		<b>33,589</b>	<b>2,115</b>	<b>35,704</b>
<b>Net income</b>								<b>1,776</b>	<b>1,776</b>	<b>4</b>	<b>1,780</b>
<b>Other comprehensive income:</b>											
Retirement benefit obligations						(58)			(58)		(58)
Cash flow hedge						2			2		2
Translation adjustments				96		(43)	1,383	(3)	1,433	64	1,497
<b>Transactions with stockholders:</b>											
Dividends of noncontrolling interest										(159)	(159)
Capitalization of noncontrolling interest advances										6	6
<b>Balance at March 31, 2016</b>	<b>61,614</b>	<b>(152)</b>	<b>(702)</b>	<b>1,081</b>	<b>(1,477)</b>	<b>(1,091)</b>	<b>(24,304)</b>	<b>1,773</b>	<b>36,742</b>	<b>2,030</b>	<b>38,772</b>
	Share capital	Results on conversion of shares	Results from operation with noncontrolling interest	Profit reserves	Treasury stocks	Unrealized fair value gain (losses)	Cumulative translation adjustments	Retained earnings	Equity attributable to Vale s stockholders	Equity attributable to noncontrolling interests	Total stockholder equity
<b>Balance at December 31, 2014</b>	<b>61,614</b>	<b>(152)</b>	<b>(449)</b>	<b>19,985</b>	<b>(1,477)</b>	<b>(1,713)</b>	<b>(22,686)</b>		<b>55,122</b>	<b>1,199</b>	<b>56,321</b>
<b>Loss</b>								<b>(3,118)</b>	<b>(3,118)</b>	<b>(52)</b>	<b>(3,170)</b>
<b>Other comprehensive income:</b>											

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

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)
<b>Transactions with stockholders:</b>											
Dividends of noncontrolling interest										(2)	(2)
Acquisitions and disposal of participation of noncontrolling interest			(2)						(2)	2	
Capitalization of noncontrolling interest advances										7	7
<b>Balance at</b>											
<b>March 31, 2015</b>	<b>61,614</b>	<b>(152)</b>	<b>(451)</b>	<b>16,548</b>	<b>(1,477)</b>	<b>(1,547)</b>	<b>(24,393)</b>	<b>(2,973)</b>	<b>47,169</b>	<b>1,148</b>	<b>48,317</b>

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

Table of 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:

	Closing rate		Average rate for the three-month period ended	
	March 31, 2016	December 31, 2015	March 31, 2016	March 31, 2015
Brazilian Reals ( 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.

Table of Contents**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							Adjusted by		Adjusted EBITDA
	Income statement							Dividends received from associates and joint ventures	Depreciation, depletion and amortization	
	Net operating revenue	Costs	Expenses, net	Research and evaluation expenses	Pre operating and operational stoppage	Depreciation and other results	Operating income (loss)			
<b>Ferrous minerals</b>										
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
	<b>3,804</b>	<b>(1,851)</b>	<b>(165)</b>	<b>(11)</b>	<b>(39)</b>	<b>(347)</b>	<b>1,391</b>		<b>347</b>	<b>1,738</b>
<b>Coal</b>	<b>154</b>	<b>(293)</b>	<b>49</b>	<b>(2)</b>	<b>(1)</b>	<b>(23)</b>	<b>(116)</b>		<b>23</b>	<b>(93)</b>
<b>Base metals</b>										
Nickel and other products	1,000	(764)	(24)	(14)	(32)	(364)	(198)		364	166
Copper	353	(192)	3	(1)		(43)	120		43	163

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

	<b>1,353</b>	<b>(956)</b>	<b>(21)</b>	<b>(15)</b>	<b>(32)</b>	<b>(407)</b>	<b>(78)</b>		<b>407</b>	<b>329</b>
<b>Fertilizers</b>										
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 products	13						13			13
	<b>384</b>	<b>(294)</b>	<b>(11)</b>	<b>(5)</b>	<b>(4)</b>	<b>(67)</b>	<b>3</b>		<b>67</b>	<b>70</b>
<b>Others</b>	<b>24</b>	<b>(45)</b>	<b>8</b>	<b>(27)</b>		<b>(6)</b>	<b>(46)</b>	<b>1</b>	<b>6</b>	<b>(39)</b>
<b>Total</b>	<b>5,719</b>	<b>(3,439)</b>	<b>(140)</b>	<b>(60)</b>	<b>(76)</b>	<b>(850)</b>	<b>1,154</b>	<b>1</b>	<b>850</b>	<b>2,005</b>

Table of Contents

	Three-month period ended March 31, 2015										
	Statement of income			Pre operating and operational stoppage		Depreciation and other results		Results on measurement or sale of non-current assets		Adjusted by Dividends received from associates and joint ventures	
	Net operating revenue	Costs	Expenses, net	Research and evaluation expenses			Operating income (loss)			Depreciation, depletion and amortization	Adj EBI
<b>Ferrous minerals</b>											
Iron ore	2,716	(1,898)	(169)	(33)	(27)	(359)	230				359
Pellets	965	(591)	3	(1)	(5)	(85)	286		26		85
Ferroalloys and manganese	70	(47)			(6)	(6)	11				6
Other ferrous products and services	117	(100)	8	(1)		(20)	4				20
	<b>3,868</b>	<b>(2,636)</b>	<b>(158)</b>	<b>(35)</b>	<b>(38)</b>	<b>(470)</b>	<b>531</b>		<b>26</b>		<b>470</b>
<b>Coal</b>	<b>145</b>	<b>(186)</b>	<b>(70)</b>	<b>(5)</b>	<b>(12)</b>	<b>(23)</b>	<b>(151)</b>				<b>23</b>
<b>Base metals</b>											
Nickel and other products	1,335	(847)	(61)	(27)	(105)	(422)	(127)				422
Copper	375	(224)	4	(1)	(1)	(48)	105				48
Other base metals products			230				230				
	<b>1,710</b>	<b>(1,071)</b>	<b>173</b>	<b>(28)</b>	<b>(106)</b>	<b>(470)</b>	<b>208</b>				<b>470</b>
<b>Fertilizers</b>											
Potash	30	(21)	(1)	(10)	(4)	(6)	(12)				6
Phosphates	357	(261)	(16)	(6)	(9)	(55)	10				55
Nitrogen	79	(55)	(3)	(1)	(1)	(6)	13				6
Other fertilizers products	12						12				
	<b>478</b>	<b>(337)</b>	<b>(20)</b>	<b>(17)</b>	<b>(14)</b>	<b>(67)</b>	<b>23</b>				<b>67</b>
<b>Others</b>	<b>39</b>	<b>(27)</b>	<b>(44)</b>	<b>(34)</b>		<b>188</b>	<b>122</b>	<b>(193)</b>	<b>1</b>		<b>5</b>
<b>Total</b>	<b>6,240</b>	<b>(4,257)</b>	<b>(119)</b>	<b>(119)</b>	<b>(170)</b>	<b>(842)</b>	<b>733</b>	<b>(193)</b>	<b>27</b>		<b>1,035</b>

Table of Contents**b) Assets by segment**

	As at March 31, 2016				Three-month period ended March 31, 2016
	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)
<b>Ferrous minerals</b>					
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	
	<b>1,829</b>	<b>1,203</b>	<b>1,644</b>	<b>31,304</b>	<b>917</b>
<b>Coal</b>	<b>27</b>	<b>44</b>	<b>298</b>	<b>1,881</b>	<b>133</b>
<b>Base metals</b>					
Nickel and other products	391	1,121	15	22,097	176
Copper	199	32		2,490	93
	<b>590</b>	<b>1,153</b>	<b>15</b>	<b>24,587</b>	<b>269</b>
<b>Fertilizers</b>					
Potash	6	21		152	
Phosphates	107	336	83	4,015	39
Nitrogen	16	13			
	<b>129</b>	<b>370</b>	<b>83</b>	<b>4,167</b>	<b>39</b>
<b>Others</b>	<b>38</b>	<b>4</b>	<b>1,357</b>	<b>2,004</b>	<b>8</b>
<b>Total</b>	<b>2,613</b>	<b>2,774</b>	<b>3,397</b>	<b>63,943</b>	<b>1,366</b>

---

(i) Include only cash effect.

	December 31, 2015				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)
<b>Ferrous minerals</b>					
Iron ore	76	812	405	26,772	1,460
Pellets	715	159	296	1,079	11
	52	63		140	2

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

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

(i) Include only cash effect.

Table of Contents**c) Results by segment and revenues by geographic area**

	Three-month period ended March 31, 2016					
	Ferrous minerals	Coal	Base metals	Fertilizers	Others	Total
<b>Results</b>						
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)
<b>Operating income (loss)</b>	<b>1,391</b>	<b>(116)</b>	<b>(78)</b>	<b>3</b>	<b>(46)</b>	<b>1,154</b>
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)
<b>Net income (loss)</b>	<b>1,952</b>	<b>(86)</b>	<b>(175)</b>	<b>10</b>	<b>79</b>	<b>1,780</b>
Income (loss) attributable to noncontrolling interests	41	(25)	(18)	5	1	4
<b>Income (loss) attributable to Vale's stockholders</b>	<b>1,911</b>	<b>(61)</b>	<b>(157)</b>	<b>5</b>	<b>78</b>	<b>1,776</b>
<b>Sales classified by geographic area:</b>						
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
<b>Net operating revenue</b>	<b>3,804</b>	<b>154</b>	<b>1,353</b>	<b>384</b>	<b>24</b>	<b>5,719</b>

	Three-month period ended March 31, 2015					
	Ferrous minerals	Coal	Base metals	Fertilizers	Others	Total
<b>Results</b>						
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)
<b>Operating income (loss)</b>	<b>531</b>	<b>(151)</b>	<b>208</b>	<b>23</b>	<b>122</b>	<b>733</b>
Financial result	(4,430)	83	(101)	(68)	6	(4,510)

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

Results on sale or disposal of investments in 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
<b>Net income (loss)</b>	<b>(2,993)</b>	<b>(91)</b>	<b>69</b>	<b>(171)</b>	<b>16</b>	<b>(3,170)</b>
Income (loss) attributable to noncontrolling interests	(6)	(11)	(32)	6	(9)	(52)
<b>Income (loss) attributable to Vale's stockholders</b>	<b>(2,987)</b>	<b>(80)</b>	<b>101</b>	<b>(177)</b>	<b>25</b>	<b>(3,118)</b>
<b>Sales classified by geographic area:</b>						
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
<b>Net operating revenue</b>	<b>3,868</b>	<b>145</b>	<b>1,710</b>	<b>478</b>	<b>39</b>	<b>6,240</b>



Table of Contents

**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.

Table of Contents**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
<b>Assets held for sale</b>		
Accounts receivable	8	3
Other current assets	121	134
Property, plant and equipment and Intangible, net	3,962	3,907
<b>Total assets</b>	<b>4,091</b>	<b>4,044</b>
<b>Liabilities associated with assets held for sale</b>		
Suppliers and contractors	83	93
Other current liabilities	11	14
<b>Total liabilities</b>	<b>94</b>	<b>107</b>
<b>Net assets held for sale</b>	<b>3,997</b>	<b>3,937</b>

**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
	<b>3,782</b>	<b>3,591</b>

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.

Table of Contents**8. Accounts receivable**

	March 31, 2016	December 31, 2015
Trade receivables	2,613	1,534
Provision for doubtful debts	(60)	(58)
	<b>2,553</b>	<b>1,476</b>
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
<b>Total</b>	<b>3,801</b>	<b>3,528</b>

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)
<b>Total</b>	<b>2,774</b>	<b>2,553</b>

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 ended March 31	
	2016	2015
<b>Balance at beginning of the period</b>	<b>2,940</b>	<b>4,133</b>
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)	
<b>Balance at end of the period</b>	<b>3,397</b>	<b>3,812</b>

(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.

Table of Contents**11. Intangibles**

Changes in intangibles are as follows:

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

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

---

(i) Indefinite useful life.

(ii) Finite useful life.

**12. Property, plant and equipment**

Changes in property, plant and equipment are as follows:

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

	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
<b>Balance at December 31, 2015</b>	<b>766</b>	<b>9,101</b>	<b>8,292</b>	<b>7,307</b>	<b>10,304</b>	<b>7,206</b>	<b>11,126</b>	<b>54,102</b>
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)
<b>Balance at March 31, 2016</b>	<b>821</b>	<b>9,841</b>	<b>8,712</b>	<b>7,684</b>	<b>10,938</b>	<b>7,645</b>	<b>12,284</b>	<b>57,925</b>
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)
	<b>821</b>	<b>9,841</b>	<b>8,712</b>	<b>7,684</b>	<b>10,938</b>	<b>7,645</b>	<b>12,284</b>	<b>57,925</b>

	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
<b>Balance at December 31, 2014</b>	<b>1,069</b>	<b>11,654</b>	<b>10,813</b>	<b>9,287</b>	<b>14,929</b>	<b>10,954</b>	<b>19,416</b>	<b>78,122</b>
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
<b>Balance at March 31, 2015</b>	<b>923</b>	<b>11,342</b>	<b>9,820</b>	<b>8,966</b>	<b>12,675</b>	<b>9,981</b>	<b>16,001</b>	<b>69,708</b>
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)
	<b>923</b>	<b>11,342</b>	<b>9,820</b>	<b>8,966</b>	<b>12,675</b>	<b>9,981</b>	<b>16,001</b>	<b>69,708</b>

(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.



Table of Contents**13. Loans and borrowings****a) Total debt**

	Current liabilities		Non-current liabilities	
	March 31, 2016	December 31, 2015	March 31, 2016	December 31, 2015
<b>Debt contracts in the international markets</b>				
<b>Floating rates in:</b>				
US\$	241	241	8,091	5,174
<b>Fixed rates in:</b>				
US\$	1,927	1,191	11,416	12,923
EUR		1,709	1,633	
Other currencies	17	14	179	169
<b>Accrued charges</b>	<b>218</b>	<b>326</b>		
	<b>2,403</b>	<b>1,772</b>	<b>21,395</b>	<b>19,899</b>
<b>Debt contracts in Brazil</b>				
<b>Floating rates in:</b>				
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
<b>Fixed rates in:</b>				
R\$	70	63	277	268
<b>Accrued charges</b>	<b>236</b>	<b>169</b>	<b>145</b>	<b>129</b>
	<b>852</b>	<b>734</b>	<b>6,820</b>	<b>6,448</b>
	<b>3,255</b>	<b>2,506</b>	<b>28,215</b>	<b>26,347</b>

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
	<b>6,385</b>	<b>14,279</b>	<b>10,207</b>	<b>30,871</b>	<b>15,997</b>

- 
- (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.

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

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

- 
- (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.
- (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\$.

Table of Contents**b) Credit and financing lines**

Type	Contractual currency	Date of agreement	Period of the agreement	Total amount	Available amount March 31, 2016
<b>Credit lines</b>					
Revolving credit facilities	US\$	May 2015	5 years	3,000	1,200
Revolving credit facilities	US\$	July 2013	5 years	2,000	800
<b>Financing lines</b>					
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 drawn 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
<b>Balance at December 31, 2015</b>	<b>269</b>	<b>79</b>	<b>454</b>	<b>20</b>	<b>822</b>
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
<b>Balance at March 31, 2016</b>	<b>218</b>	<b>103</b>	<b>507</b>	<b>23</b>	<b>851</b>

	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
<b>Balance at December 31, 2014</b>	<b>366</b>	<b>118</b>	<b>706</b>	<b>92</b>	<b>1,282</b>
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)
<b>Balance at March 31, 2015</b>	<b>305</b>	<b>114</b>	<b>596</b>	<b>72</b>	<b>1,087</b>

Table of Contents**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
<b>Total</b>	<b>11,398</b>	<b>9,908</b>

**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
<b>Total</b>	<b>984</b>	<b>882</b>

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.

Table of Contents**15. Income taxes****a) Deferred income tax**

Changes in deferred tax are as follows:

	Assets	Liabilities	Total
<b>Balance at December 31, 2015</b>	<b>7,904</b>	<b>1,670</b>	<b>6,234</b>
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)
<b>Balance at March 31, 2016</b>	<b>7,675</b>	<b>1,817</b>	<b>5,858</b>

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

**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
<b>Net income (loss) before income taxes</b>	<b>2,735</b>	<b>(4,030)</b>
<b>Income taxes at statutory rates - 34%</b>	<b>(930)</b>	<b>1,370</b>
<b>Adjustments that affect the basis of taxes:</b>		
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)
<b>Income taxes</b>	<b>(955)</b>	<b>860</b>

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.



Table of Contents**16. Employee benefits obligations****Reconciliation of assets and liabilities recognized in the balance sheet**

	Overfunded pension plans	March 31, 2016 Underfunded pension plans	Other benefits	Total Overfunded pension plans	December 31, 2015 Underfunded pension plans	Other benefits
<b>Balance at beginning of the period</b>	<b>961</b>			<b>1,301</b>		
Interest income	33			130		
Changes in asset ceiling and onerous liability	228			(54)		
Translation adjustment	118			(416)		
<b>Balance at end of the period</b>	<b>1,340</b>			<b>961</b>		
<b>Amount recognized in the balance sheet</b>						
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)		
<b>Liabilities</b>		<b>(714)</b>	<b>(1,314)</b>		<b>(595)</b>	<b>(1,223)</b>
Current liabilities		(20)	(51)		(17)	(51)
Non-current liabilities		(694)	(1,263)		(578)	(1,172)
<b>Liabilities</b>		<b>(714)</b>	<b>(1,314)</b>		<b>(595)</b>	<b>(1,223)</b>

**17. Financial instruments classification**

	March 31, 2016			December 31, 2015			
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	Derivatives designated as hedge accounting	Total
<b>Current</b>							
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

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

Accounts receivable	2,553		2,553	1,476			1,476
Related parties	100		100	70			70
	<b>6,462</b>	<b>141</b>	<b>6,603</b>	<b>5,165</b>	<b>121</b>		<b>5,286</b>
<b>Non-current</b>							
Derivative financial instruments		170	170		93		93
Loans	194		194	188			188
Related parties				1			1
	<b>194</b>	<b>170</b>	<b>364</b>	<b>189</b>	<b>93</b>		<b>282</b>
<b>Total of financial assets</b>	<b>6,656</b>	<b>311</b>	<b>6,967</b>	<b>5,354</b>	<b>214</b>		<b>5,568</b>
<b>Financial liabilities</b>							
<b>Current</b>							
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
	<b>7,134</b>	<b>1,629</b>	<b>8,763</b>	<b>6,346</b>	<b>2,023</b>	<b>53</b>	<b>8,422</b>
<b>Non-current</b>							
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
	<b>28,338</b>	<b>1,895</b>	<b>30,233</b>	<b>26,560</b>	<b>1,912</b>		<b>28,472</b>
<b>Total of financial liabilities</b>	<b>35,472</b>	<b>3,524</b>	<b>38,996</b>	<b>32,906</b>	<b>3,935</b>	<b>53</b>	<b>36,894</b>

(i) See note 18(a).

Table of Contents**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
<b>Financial assets</b>						
Derivative financial instruments	311		311	214		214
<b>Total</b>	<b>311</b>		<b>311</b>	<b>214</b>		<b>214</b>
<b>Financial liabilities</b>						
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
<b>Total</b>	<b>3,356</b>	<b>168</b>	<b>3,524</b>	<b>3,847</b>	<b>141</b>	<b>3,988</b>

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
<b>March 31, 2016</b>				
Debt principal	30,871	28,504	12,316	16,188
<b>December 31, 2015</b>				
Debt principal	28,229	26,233	12,297	13,936

**19. Derivative financial instruments**

a) **Derivatives effects on balance sheet**

	March 31, 2016		December 31, 2015	
	Current	Non-current	Current	Non-current
<b>Derivatives designated as economic hedge</b>				
<b>Foreign exchange and interest rate risk</b>				
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			
	<b>106</b>	<b>84</b>	<b>71</b>	<b>16</b>
<b>Commodities price risk</b>				
Nickel	35	8	50	11
	<b>35</b>	<b>8</b>	<b>50</b>	<b>11</b>
<b>Others</b>		78		66
		<b>78</b>		<b>66</b>
<b>Total</b>	<b>141</b>	<b>170</b>	<b>121</b>	<b>93</b>

Table of Contents

	March 31, 2016		December 31, 2015	
	Current	Non-current	Current	Non-current
<b>Liabilities</b>				
<b>Derivatives designated as economic hedge</b>				
<b>Foreign exchange and interest rate risk</b>				
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
	<b>842</b>	<b>1,112</b>	<b>1,059</b>	<b>1,333</b>
<b>Commodities price risk</b>				
Nickel	31	7	40	10
Bunker oil	756		924	
	<b>787</b>	<b>7</b>	<b>964</b>	<b>10</b>
<b>Others</b>				
		106		86
		<b>106</b>		<b>86</b>
<b>Derivatives designated as cash flow hedge accounting</b>				
Bunker oil			50	
Foreign exchange			3	
			<b>53</b>	
<b>Total</b>	<b>1,629</b>	<b>1,225</b>	<b>2,076</b>	<b>1,429</b>

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

	Gain (loss) recognized in the income statement		Three-month period ended March 31		Gain(loss) recognized in other comprehensive income	
	2016	2015	2016	2015	2016	2015
<b>Derivatives designated as economic hedge</b>						
<b>Foreign exchange and interest rate risk</b>						
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)		
	<b>486</b>	<b>(1,263)</b>	<b>(257)</b>	<b>(342)</b>		
<b>Commodities price risk</b>						
Nickel	(24)	(8)	(17)	(15)		
Bunker oil	(14)	(49)	(182)	(155)		
	<b>(38)</b>	<b>(57)</b>	<b>(199)</b>	<b>(170)</b>		
<b>Others</b>						
	(5)	(5)				

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

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:

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

Table of 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.

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

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

<b>CDI vs. US\$ fixed rate swap</b>										
Receivable	R\$ 5,739	R\$ 5,239	CDI	107.57%						
Payable	US\$ 2,399	US\$ 2,288	Fix	3.46%						
<b>TJLP vs. US\$ fixed rate swap</b>										
Receivable			TJLP		(872)	(1,015)	(63)	71	(161)	(253)
	R\$ 5,180	R\$ 5,484	+	1.31%				(125)	(334)	
Payable	US\$ 2,486	US\$ 2,611	Fix	1.69%						
<b>TJLP vs. US\$ floating rate swap</b>										
Receivable			TJLP		(57)	(63)	(0)	5	(3)	(4)
	R\$ 32	R\$ 267	+	0.92%				(5)	(45)	
Payable	US\$ 155	US\$ 156	Libor							
			+	-1.21%						
<b>R\$ fixed rate vs. US\$ fixed rate swap</b>										
Receivable	R\$ 1,139	R\$ 1,356	Fix	7.32%	(68)	(165)	(73)	21	(21)	(7)
Payable	US\$ 398	US\$ 528	Fix	-0.83%				7	(46)	
<b>IPCA vs. US\$ fixed rate swap</b>										
Receivable			IPCA		(84)	(105)	1	11	3	2.3
	R\$ 1,000	R\$ 1,000	+	6.55%				(90)		
Payable	US\$ 434	US\$ 434	Fix	3.98%						
<b>IPCA vs. CDI swap</b>										
Receivable			IPCA		16	2		0.4	(21)	(16)
	R\$ 1,350	R\$ 1,350	+	6.62%				(13)	66	
Payable	US\$ 1,350	US\$ 1,350	CDI	98.58%						

(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	Notional			Index	Average rate	Fair value		Financial Settlement	Value at Risk	Fair value by year		
	March 31, 2016	December 31, 2016	March 31, 2016			December 31, 2015	Inflows (Outflows) March 31, 2016	March 31, 2016	2016	2017	2018	2019+
<b>EUR fixed rate vs. US\$ fixed rate swap</b>												
Receivable	500	1,000	Fix	3.75%	(19)	(175)	(141)	18	(5)	(4)	(10)	



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

Flow	Notional March 31, 2016	Notional December 31, 2015	Bought / Sold	Average rate (USD/EUR)	Fair value March 31, 2016	Fair value December 31, 2015	Financial Settlement Inflows (Outflows) March 31, 2016	Value at Risk March 31, 2016	Fair value by year 2016	Fair value by year 2017
Payable	US\$ 613	US\$ 1,302	Fix	4.29%						
Forwards	500		B	1.143	2			6.4	2	

Table of Contents**(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.

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

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

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

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

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)		Bought / Sold	Average strike (US\$/ton)	Fair value		Financial settlement	Value at Risk March 31, 2016	Fair value by	
	March 31, 2016	December 31, 2015			March 31, 2016	December 31, 2015	Inflows (Outflows) March 31, 2016		2016	2017
<b>Fixed price sales protection</b>										
Nickel forwards	16,102	16,917	B	10,892	(35)	(46)	(18)	5	(24)	(11)
<b>Raw material purchase protection</b>										
Nickel forwards	90	118	S	8,486	0.00	0.10	0.13	0.02	0.00	
Copper forwards	398	385	S	4,598	(0.09)	0.09	0.12	0.04	(0.09)	
<b>Total</b>					<b>(0.09)</b>	<b>0.19</b>			<b>(0.09)</b>	

Table of Contents**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	Notional (quantity)		Bought / Sold	Average strike (US\$/share)	Fair value		Financial settlement Inflows (Outflows)		Value at Risk March 31, 2016	Fair value by year 2023
	March 31, 2016	December 31, 2015			March 31, 2016	December 31, 2015	March 31, 2016	March 31, 2016		
Call options	10,000,000	10,000,000	B	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 options strike price is given by the debentures remaining notional in each exercise date.

Flow	Notional (quantity)		Bought / Sold	Average strike (R\$/share)	Fair value		Financial settlement Inflows (Outflows)		Value at Risk March 31, 2016	Fair value by year 2027
	March 31, 2016	December 31, 2015			March 31, 2016	December 31, 2015	March 31, 2016	March 31, 2016		
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. In 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

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

Flow	Notional (quantity, in millions)		Bought / Sold	Average strike (R\$/share)	Fair value		Inflows (Outflows) March 31, 2016	Value at Risk March 31, 2016	by year 2016+
	March 31, 2016	December 31, 2015			March 31, 2016	December 31, 2015			
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 (ton)		Bought / Sold	Average strike (US\$/ton)	Fair value		Financial settlement Inflows (Outflows) March 31, 2016	Value at Risk March 31, 2016	Fair value by year 2016
	March 31, 2016	December 31, 2015			March 31, 2016	December 31, 2015			
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)
<b>Total</b>					<b>(0.6)</b>	<b>5.0</b>		<b>2.1</b>	<b>(0.6)</b>

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	Notional (volume/month)		Bought / Sold	Average strike (US\$/ton)	Fair value		Financial settlement Inflows (Outflows) March 31, 2016	Value at Risk March 31, 2016	Fair value by year		
	March 31, 2016	December 31, 2015			March 31, 2016	December 31, 2015			2016	2017	2018+
Call options	746,667	746,667	S	179	(1.4)			0.9	(0.0)	(0.0)	(1.0)

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

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

<b>IPCA vs. CDI swap</b>	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
<b>EUR fixed rate vs. US\$ fixed rate swap</b>	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
<b>EUR Forward</b>	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

Table of Contents

Instrument	Instrument's main risk events	Scenario I	Scenario II	Scenario III
<b>Bunker Oil protection</b>				
Forwards and options	Bunker Oil price decrease	(644)	(772)	(901)
Protected item: Part of costs linked to bunker oil prices	Bunker Oil price decrease	n.a.	772	901
<b>Nickel sales fixed price protection</b>				
Forwards	Nickel price decrease	(35)	(70)	(104)
Protected item: Part of nickel revenues with fixed prices	Nickel price fluctuation	n.a.	70	104
<b>Purchase protection program</b>				
Nickel forwards	Nickel price increase	0.0	(0.2)	(0.4)
Protected item: Part of costs linked to nickel prices	Nickel price increase	n.a.	0.2	0.4
Copper forwards	Copper price increase	(0.1)	(0.6)	(1.0)
Protected item: Part of costs linked to copper prices	Copper price increase	n.a.	0.6	1.0
<b>SLW warrants</b>	SLW stock price decrease	15	6	1
<b>VLI call options</b>	VLI stock value increase	(38)	(62)	(86)
<b>Options regarding non-controlling interest in subsidiary</b>	Subsidiary stock value increase	5	(48)	(75)

Instrument	Main risks	Scenario I	Scenario II	Scenario III
Embedded derivatives - Raw material purchase (nickel)	Nickel price increase	(0.3)	(12.9)	(25.5)
Embedded derivatives - Raw material purchase (copper)	Copper price increase	(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.



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

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+

Table of Contentsi) **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**

<b>Maturity</b>	<b>Price (US\$/ton)</b>	<b>Maturity</b>	<b>Price (US\$/ton)</b>	<b>Maturity</b>	<b>Price (US\$/ton)</b>
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**

<b>Maturity</b>	<b>Price (US\$/lb)</b>	<b>Maturity</b>	<b>Price (US\$/lb)</b>	<b>Maturity</b>	<b>Price (US\$/lb)</b>
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**

<b>Maturity</b>	<b>Price (US\$/ton)</b>	<b>Maturity</b>	<b>Price (US\$/ton)</b>	<b>Maturity</b>	<b>Price (US\$/ton)</b>
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

Table of Contents**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**

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

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
----------	--------	----------	--------	----------	--------

Table of Contents**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.

	ON	March 31, 2016 PNA	Total
<b>Stockholders</b>			
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
<b>Shares outstanding</b>	<b>3,185,653,000</b>	<b>1,967,721,926</b>	<b>5,153,374,926</b>
Shares in treasury	31,535,402	59,405,792	90,941,194
<b>Total issued shares</b>	<b>3,217,188,402</b>	<b>2,027,127,718</b>	<b>5,244,316,120</b>
<b>Amounts per class of shares (in millions)</b>	<b>38,525</b>	<b>23,089</b>	<b>61,614</b>
<b>Total authorized shares</b>	<b>7,200,000,000</b>	<b>3,600,000,000</b>	<b>10,800,000,000</b>

**b) Basic and diluted earnings per share**

Basic and diluted earnings per share are as follows:

	Three-month period ended March 31	
	2016	2015
<b>Net income (loss) attributable to Vale's stockholders</b>	<b>1,776</b>	<b>(3,118)</b>

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

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

Table of Contents**21. Costs and expenses by nature****a) Cost of goods sold and services rendered**

	<b>Three-month period ended March 31</b>	
	<b>2016</b>	<b>2015</b>
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
<b>Total</b>	<b>4,249</b>	<b>5,168</b>
Cost of goods sold	4,142	5,022
Cost of services rendered	107	146
<b>Total</b>	<b>4,249</b>	<b>5,168</b>

**b) Selling and administrative expenses**

	<b>Three-month period ended March 31</b>	
	<b>2016</b>	<b>2015</b>
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
<b>Total</b>	<b>119</b>	<b>195</b>

**c) Others operational expenses (incomes), net**



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

	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
<b>Total</b>	<b>35</b>	<b>(46)</b>

Table of Contents**22. Financial result**

	<b>Three-month period ended March 31</b>	
	<b>2016</b>	<b>2015</b>
<b>Financial expenses</b>		
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)
	<b>(1,858)</b>	<b>(6,860)</b>
<b>Financial income</b>		
Short-term investments	42	26
Derivative financial instruments	498	
Indexation and exchange rate variation (b)	2,725	2,282
Others	18	42
	<b>3,283</b>	<b>2,350</b>
<b>Financial results, net</b>	<b>1,425</b>	<b>(4,510)</b>
<b>Summary of indexation and exchange rate variation</b>		
Loans and borrowings	2,638	(5,014)
Others	(1,083)	1,995
<b>Net (a) + (b)</b>	<b>1,555</b>	<b>(3,019)</b>

**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.

Table of Contents

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
<b>Total minimum payments required</b>	<b>242</b>

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:

Cash and cash equivalents	March 31, 2016				December 31, 2015			
	Derivative financial instruments	Accounts receivable	Related parties	Assets	Cash and cash equivalents	Derivative financial instruments	Accounts receivable	Related parties

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

Banco Bradesco S.A.	43	7			37	66		
Banco do Brasil S.A.	254	22			395	16		
Baovale Mineração S.A.			2	1				
Companhia Coreano-Brasileira de Pelotização				6				6
Companhia Hispano-Brasileira de Pelotização				4			1	4
Companhia Ítalo-Brasileira de Pelotização				9				8
Companhia Nipo-Brasileira de Pelotização				10				9
Consórcio de Rebocadores da Baia de São Marcos			21				15	
Ferrovia Norte Sul S.A.			6					3
Mitsui & Co., Ltd.			1					1
MRS Logística S.A.				19				17
VLI Multimodal S.A.			5					9
VLI Operações Portuárias S.A.			12					25
VLI S.A.			119	10				10
Others			42	41				24
<b>Total</b>	<b>297</b>	<b>29</b>	<b>208</b>	<b>100</b>	<b>432</b>	<b>82</b>	<b>78</b>	<b>71</b>

Table of Contents

	Liabilities							
	Derivative financial instruments	March 31, 2016		Loans and borrowings	Derivative financial instruments	December 31, 2015		Loans and borrowings
Suppliers and contractors		Related parties	Suppliers and contractors			Related parties		
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 Ítalo-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	
<b>Total</b>	<b>454</b>	<b>183</b>	<b>855</b>	<b>7,958</b>	<b>494</b>	<b>136</b>	<b>688</b>	<b>7,432</b>

	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)	

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

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
<b>Total</b>	<b>115</b>	<b>(150)</b>	<b>(105)</b>	<b>185</b>	<b>(214)</b>	<b>(243)</b>

---

(i) Not include exchange rate variation.

Table of Contents

**Members of the Board of Directors, Fiscal Council, Advisory Committees and Executive Officers**

**Board of Directors**

Gueitiro Matsuo Genso

**Chairman**

Sérgio Alexandre Figueiredo Clemente

**Vice-President**

Dan Antonio Marinho Conrado

Marcel Juviniانو Barros

Tarcísio José Massote de Godoy

Motomu Takahashi

Hiroyuki Kato

Oscar Augusto de Camargo Filho

Luciano Galvão Coutinho

Lucio Azevedo

Alberto Guth

**Alternate**

Gilberto Antonio Vieira

Moacir Nachbar Junior

Arthur Prado Silva

Francisco Ferreira Alexandre

Robson Rocha

Luiz Mauricio Leuzinger

Yoshitomo Nishimitsu

Eduardo de Oliveira Rodrigues Filho

Victor Guilherme Tito

Carlos Roberto de Assis Ferreira

**Advisory Committees of the Board of Directors**

**Controlling Committee**

Eduardo Cesar Pasa

Moacir Nachbar Junior

Oswaldo Mário Pego de Amorim Azevedo

Marcos Paulo Pereira da Silva

**Executive Development Committee**

Oscar Augusto de Camargo Filho

Marcel Juviniانو Barros

Fernando Jorge Buso Gomes

Tatiana Boavista Barros Heil

**Governance and Sustainability Committee**

Fernando Jorge Buso Gomes

Arthur Prado Silva

Eduardo de Oliveira Rodrigues Filho

Ricardo Rodrigues Morgado

Ricardo Simonsen

**Fiscal Council**

Marcelo Amaral Moraes

**Chairman**

Paulo José dos Reis Souza

Sandro Kohler Marcondes

Aníbal Moreira dos Santos

Raphael Manhães Martins

**Alternate**

Paula Bicudo de Castro Magalhães

Sergio Mamede Rosa do Nascimento

Oswaldo Mário Pego de Amorim Azevedo

Julio Sergio de Souza Cardozo

**Executive Officers**

Murilo Pinto de Oliveira Ferreira

**Chief Executive Officer**

Vânia Lucia Chaves Somavilla

**Executive Officer (Human Resources, Health & Safety, Sustainability and Energy)**

Luciano Siani Pires

**Executive Officer (Finance and Investors Relations)**

Roger Allan Downey

**Executive Officer (Fertilizers, Coal and Strategy)**

Gerd Peter Poppinga

**Executive Officer (Ferrous)**

Galib Abrahão Chaim



**Strategic Committee**

Murilo Pinto de Oliveira Ferreira  
Gueitiro Matsuo Genso  
Luiz Carlos Trabuco Cappi  
Oscar Augusto de Camargo Filho  
Luciano Galvão Coutinho

**Finance Committee**

Gilmar Dalilo Cezar Wanderley  
Fernando Jorge Buso Gomes  
Eduardo de Oliveira Rodrigues Filho  
Tatiana Boavista Barros Heil

**Executive Officer (Capital Projects Implementation)**

Humberto Ramos de Freitas

**Executive Officer (Logistics and Mineral Research)**

Jennifer Anne Maki

**Executive Officer (Base Metals)**

Marcelo Botelho Rodrigues

**Global Controller Director**

Murilo Muller

**Controllership Director**

Dioni Brasil

**Accounting Manager**

**TC-CRC-RJ 083305/O-8**

Table of Contents

**Signatures**

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

Vale S.A.  
(Registrant)

Date: April 28, 2016

By:

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

---