

Vale S.A.  
Form 6-K  
July 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**

**June, 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.

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(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- .

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Table of Contents

**Interim Financial Statements**

**June 30, 2016**

IFRS in US\$

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 preparation of the interim financial statements</u>	9
<u>3. Information by business segment</u>	10
<u>4. Relevant Event</u>	15
<u>5. Assets held for sale</u>	17
<u>6. Acquisitions and divestitures</u>	17
<u>7. Cash and cash equivalents</u>	18
<u>8. Accounts receivable</u>	18
<u>9. Inventories</u>	18
<u>10. Investments in associates and joint ventures</u>	19
<u>11. Intangibles</u>	19
<u>12. Property, plant and equipment</u>	20
<u>13. Loans and borrowings</u>	22
<u>14. Litigation</u>	24
<u>15. Income taxes</u>	26
<u>16. Employee postretirement obligations</u>	27
<u>17. Financial instruments classification</u>	27
<u>18. Fair value estimate</u>	28
<u>19. Derivative financial instruments</u>	28
<u>20. Stockholders' equity</u>	38
<u>21. Costs and expenses by nature</u>	39
<u>22. Financial results</u>	40
<u>23. Commitments</u>	40
<u>24. Related parties</u>	41
<u>Members of the Board of Directors, Fiscal Council, Advisory Committees and Executive Officers</u>	43

Table of Contents

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**Report of independent registered public accounting firm**

To the Board of Directors and Stockholders of

Vale S.A.

Rio de Janeiro - RJ

We have reviewed the accompanying condensed consolidated balance sheet of Vale S.A. ( the Company ) and its subsidiaries as of June 30, 2016 and the related condensed consolidated statements of income, comprehensive income and cash flows for the three and six months periods ended June 30, 2016 and 2015 and the condensed consolidated statements of changes in equity for the six-month periods ended on June 30, 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 th 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

July 26, 2016

KPMG Auditores Independentes, uma sociedade simples brasileira e firma-membro da rede KPMG de firmas-membro independentes e afiliadas à KPMG International Cooperative ( KPMG International ), uma entidade suíça.

*KPMG Auditores Independentes, a Brazilian entity and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ( KPMG International ), a Swiss entity.*

Table of Contents**Condensed Consolidated Income Statement**

In millions of United States dollars, except as otherwise stated

	Notes	Three-months period ended June 30		Six-months period ended June 30	
		2016	2015	2016	2015
Net operating revenue	3(c)	6,626	6,965	12,345	13,205
Cost of goods sold and services rendered	21(a)	(4,795)	(5,186)	(9,044)	(10,354)
<b>Gross profit</b>		<b>1,831</b>	<b>1,779</b>	<b>3,301</b>	<b>2,851</b>
<b>Operating (expenses) income</b>					
Selling and administrative expenses	21(b)	(140)	(159)	(259)	(354)
Research and evaluation expenses		(78)	(118)	(138)	(237)
Pre operating and operational stoppage		(114)	(259)	(216)	(523)
Other operating income (expenses), net	21(c)	(160)	(203)	(195)	(157)
		<b>(492)</b>	<b>(739)</b>	<b>(808)</b>	<b>(1,271)</b>
Results on measurement or sale of non-current assets	5 and 6	(66)	(55)	(66)	138
<b>Operating income</b>		<b>1,273</b>	<b>985</b>	<b>2,427</b>	<b>1,718</b>
Financial income	22	3,923	1,471	7,206	3,819
Financial expenses	22	(1,832)	(939)	(3,690)	(7,797)
Equity results in associates and joint ventures	10	190	218	346	(53)
Others results in associates and joint ventures	4 and 6	(1,113)	79	(1,113)	97
<b>Net income (loss) before income taxes</b>		<b>2,441</b>	<b>1,814</b>	<b>5,176</b>	<b>(2,216)</b>
<b>Income taxes</b>					
	15				
Current tax		(413)	(67)	(758)	(137)
Deferred tax		(907)	(118)	(1,517)	812
		<b>(1,320)</b>	<b>(185)</b>	<b>(2,275)</b>	<b>675</b>
<b>Net income (loss)</b>		<b>1,121</b>	<b>1,629</b>	<b>2,901</b>	<b>(1,541)</b>
Income (loss) attributable to noncontrolling interests		15	(46)	19	(98)
<b>Net income (loss) attributable to Vale's stockholders</b>		<b>1,106</b>	<b>1,675</b>	<b>2,882</b>	<b>(1,443)</b>
<b>Earnings per share attributable to Vale's stockholders:</b>					
<b>Basic and diluted earnings per share:</b>					
	20(b)				
Preferred share (US\$)		0.21	0.33	0.56	(0.28)
Common share (US\$)		0.21	0.33	0.56	(0.28)

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

See report of independent registered public accounting firm.





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

In millions of United States dollars

	Three-months period ended June 30		Six-months period ended June 30	
	2016	2015	2016	2015
<b>Net income (loss)</b>	<b>1,121</b>	<b>1,629</b>	<b>2,901</b>	<b>(1,541)</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>3,861</b>	<b>1,591</b>	<b>7,107</b>	<b>(7,903)</b>
<b>Retirement benefit obligations</b>				
Gross balance for the period	(183)	94	(268)	(7)
Effect of taxes	55	(27)	82	23
	<b>(128)</b>	<b>67</b>	<b>(186)</b>	<b>16</b>
<b>Total items that will not be reclassified subsequently to the income statement</b>	<b>3,733</b>	<b>1,658</b>	<b>6,921</b>	<b>(7,887)</b>
<b>Items that may be reclassified subsequently to the income statement</b>				
<b>Cumulative translation adjustments</b>				
Gross balance for the period	(2,077)	(880)	(3,678)	3,713
Effect of taxes	7		(141)	
Transfer of realized results to net income, net of taxes	(75)		(75)	
	<b>(2,145)</b>	<b>(880)</b>	<b>(3,894)</b>	<b>3,713</b>
<b>Cash flow hedge</b>				
Gross balance for the period		281	6	541
Effect of taxes		(3)	(1)	(3)
Equity results in associates and joint ventures	5		5	(2)
Transfer of realized results to net income, net of taxes		(98)	(3)	(243)
	<b>5</b>	<b>180</b>	<b>7</b>	<b>293</b>
<b>Total of items that may be reclassified subsequently to the income statement</b>	<b>(2,140)</b>	<b>(700)</b>	<b>(3,887)</b>	<b>4,006</b>
<b>Total comprehensive income (loss)</b>	<b>2,714</b>	<b>2,587</b>	<b>5,935</b>	<b>(5,422)</b>
Comprehensive income (loss) attributable to noncontrolling interests	85	(48)	153	(104)
<b>Comprehensive income (loss) attributable to Vale's stockholders</b>	<b>2,629</b>	<b>2,635</b>	<b>5,782</b>	<b>(5,318)</b>

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

See report of independent registered public accounting firm.



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

In millions of United States dollars

	Three-months period ended June 30		Six-months period ended June 30	
	2016	2015	2016	2015
<b>Cash flow from operating activities:</b>				
Net income (loss) before income taxes	2,441	1,814	5,176	(2,216)
<b>Adjustments for:</b>				
Equity results from associates and joint ventures	(190)	(218)	(346)	53
Results on measurement or sale of non-current assets	66	55	66	(138)
Others results in associates and joint ventures	1,113	(79)	1,113	(97)
Results on disposal of property, plant and equipment and intangibles	30	(15)	39	(230)
Depreciation, amortization and depletion	927	988	1,777	2,023
Financial results, net	(2,091)	(532)	(3,516)	3,978
<b>Changes in assets and liabilities:</b>				
Accounts receivable	108	(474)	(908)	343
Inventories	78	(89)	16	100
Suppliers and contractors	364	214	(19)	(173)
Payroll and related charges	45	(10)	45	(577)
Other taxes assets and liabilities, net	(4)	(379)	(51)	(206)
Deferred revenue - Gold stream				532
Other assets and liabilities, net	228	305	419	236
<b>Cash provided from operations</b>	<b>3,115</b>	<b>1,580</b>	<b>3,811</b>	<b>3,628</b>
Interest on loans and borrowings paid	(362)	(305)	(822)	(776)
Derivatives received (paid), net (note 19)	(353)	(102)	(863)	(759)
Interest on participative stockholders debentures paid	(37)		(37)	(39)
Income taxes	(113)	(74)	(259)	(318)
Income taxes - Settlement program	(100)	(103)	(188)	(209)
<b>Net cash provided by operating activities</b>	<b>2,150</b>	<b>996</b>	<b>1,642</b>	<b>1,527</b>
<b>Cash flow from investing activities:</b>				
Financial investments redeemed (invested)	(112)	107	(23)	252
Loans and advances granted		(13)	(3)	(18)
Guarantees and deposits granted	(14)	(22)	(52)	(48)
Additions to investments	(136)	(36)	(226)	(46)
Acquisition of subsidiary, net of cash acquired			5	(90)
Additions to property, plant and equipment and intangible (note 3(b))	(1,232)	(2,111)	(2,598)	(4,311)
Dividends and interest on capital received from associates and joint ventures	117	185	118	212
Proceeds from disposal of assets and investments	12	454	24	561
Proceeds from gold stream transaction				368
<b>Net cash used in investing activities</b>	<b>(1,365)</b>	<b>(1,436)</b>	<b>(2,755)</b>	<b>(3,120)</b>
<b>Cash flow from financing activities:</b>				
<b>Loans and borrowings (i)</b>				

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Additions	1,433	1,542	4,633	2,884
Repayments	(1,808)	(585)	(2,966)	(886)
<b>Transactions with stockholders:</b>				
Dividends and interest on capital paid to Vale s stockholders		(1,000)		(1,000)
Dividends and interest on capital paid to noncontrolling interest	(71)	(9)	(75)	(12)
Transactions with noncontrolling stockholders		(40)	(17)	(40)
<b>Net cash provided by (used in) financing activities</b>	<b>(446)</b>	<b>(92)</b>	<b>1,575</b>	<b>946</b>
<b>Increase (decrease) in cash and cash equivalents</b>				
Cash and cash equivalents in the beginning of the period	3,782	3,684	3,591	3,974
Effect of exchange rate changes on cash and cash equivalents	47	6	115	(169)
<b>Cash and cash equivalents at end of the period</b>	<b>4,168</b>	<b>3,158</b>	<b>4,168</b>	<b>3,158</b>
<b>Non-cash transactions:</b>				
Additions to property, plant and equipment - capitalized loans and borrowing costs	213	177	390	373

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

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

See report of independent registered public accounting firm.

Table of Contents**Condensed Consolidated Balance Sheet**

In millions of United States dollars

	Notes	June 30, 2016	December 31, 2015
<b>Assets</b>			
<b>Current assets</b>			
Cash and cash equivalents	7	4,168	3,591
Financial investments		138	28
Derivative financial instruments	19	136	121
Accounts receivable	8	2,452	1,476
Inventories	9	3,866	3,528
Recoverable income taxes		299	900
Recoverable taxes		1,781	1,404
Related parties	24	68	70
Others		708	311
		<b>13,616</b>	<b>11,429</b>
Assets held for sale	5	4,658	4,044
		<b>18,274</b>	<b>15,473</b>
<b>Non-current assets</b>			
Derivative financial instruments	19	497	93
Loans		179	188
Recoverable income taxes		513	471
Recoverable taxes		619	501
Deferred income taxes	15(a)	7,289	7,904
Judicial deposits	14(c)	1,090	882
Related parties	24	3	1
Others		671	613
		<b>10,861</b>	<b>10,653</b>
Investments in associates and joint ventures	10	3,963	2,940
Intangibles	11	6,913	5,324
Property, plant and equipment	12	60,959	54,102
		<b>82,696</b>	<b>73,019</b>
<b>Total assets</b>		<b>100,970</b>	<b>88,492</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Suppliers and contractors		3,891	3,365
Payroll and related charges		493	375
Derivative financial instruments	19	1,010	2,076
Loans and borrowings	13	3,153	2,506
Related parties	24	600	475
Income taxes - Settlement program	15(c)	442	345
Taxes payable		262	250
Provision for income taxes		120	241
Employee postretirement obligations	16	77	68
Asset retirement obligations		81	89

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Liabilities related to associates and joint ventures		289	
Others		1,048	648
		<b>11,466</b>	<b>10,438</b>
Liabilities associated with assets held for sale	5	80	107
		<b>11,546</b>	<b>10,545</b>
<b>Non-current liabilities</b>			
Derivative financial instruments	19	1,201	1,429
Loans and borrowings	13	28,661	26,347
Related parties	24	144	213
Employee postretirement obligations	16	2,150	1,750
Provisions for litigation	14(a)	924	822
Income taxes - Settlement program	15(c)	5,013	4,085
Deferred income taxes	15(a)	1,739	1,670
Asset retirement obligations		2,759	2,385
Participative stockholders' debentures		617	342
Deferred revenue - Gold stream		1,666	1,749
Liabilities related to associates and joint ventures		874	
Others		2,193	1,451
		<b>47,941</b>	<b>42,243</b>
<b>Total liabilities</b>		<b>59,487</b>	<b>52,788</b>
<b>Stockholders' equity</b>			
Equity attributable to Vale's stockholders	20	39,371	33,589
Equity attributable to noncontrolling interests		2,112	2,115
<b>Total stockholders' equity</b>		<b>41,483</b>	<b>35,704</b>
<b>Total liabilities and stockholders' equity</b>		<b>100,970</b>	<b>88,492</b>

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

See report of independent registered public accounting firm.

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>2,882</b>	<b>2,882</b>	<b>19</b>	<b>2,901</b>
<b>Other comprehensive income:</b>											
Retirement benefit obligations						(186)			(186)		(186)
Cash flow hedge						7			7		7
Translation adjustments				213		(97)	2,762	201	3,079	134	3,213
<b>Transactions with stockholders:</b>											
Dividends of noncontrolling interest										(172)	(172)
Capitalization of noncontrolling interest advances										16	16
<b>Balance at June 30, 2016</b>	<b>61,614</b>	<b>(152)</b>	<b>(702)</b>	<b>1,198</b>	<b>(1,477)</b>	<b>(1,268)</b>	<b>(22,925)</b>	<b>3,083</b>	<b>39,371</b>	<b>2,112</b>	<b>41,483</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 (loss)	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>(1,443)</b>	<b>(1,443)</b>	<b>(98)</b>	<b>(1,541)</b>
<b>Other comprehensive income:</b>											
Retirement benefit obligations						16			16		16

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Cash flow hedge				293					293		293
Translation adjustments		(2,875)		88	(1,424)	27		(4,184)	(6)		(4,190)
<b>Transactions with stockholders:</b>											
Dividends and interest on capital of Vale's stockholders		(1,000)						(1,000)			(1,000)
Dividends of noncontrolling interest									(5)		(5)
Acquisitions and disposal of participation of noncontrolling interest		(4)						(4)	(35)		(39)
Capitalization of noncontrolling interest advances									16		16
<b>Balance at June 30, 2015</b>	<b>61,614</b>	<b>(152)</b>	<b>(453)</b>	<b>16,110</b>	<b>(1,477)</b>	<b>(1,316)</b>	<b>(24,110)</b>	<b>(1,416)</b>	<b>48,800</b>	<b>1,071</b>	<b>49,871</b>

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

See report of independent registered public accounting firm.



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) and Paris - NYSE Euronext (Vale3 and Vale5).

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.

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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		Average rate for the	
	June 30, 2016	December 31, 2015	Three-months period ended		Six-months period ended	
	June 30, 2016	December 31, 2015	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Brazilian Reais ( R\$ )	3.2098	3.9048	3.5076	3.0729	3.7017	2.9715
Canadian dollar ( CAD )	2.4670	2.8171	2.7217	2.4999	2.7809	2.4060
Australian dollar ( AUD )	2.3855	2.8532	2.6153	2.3913	2.7142	2.3228
Euro ( EUR or )	3.5414	4.2504	3.9624	3.4011	4.1288	3.3111

Subsequent events were evaluated through July 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 disclosed in the notes to the financial statements for the year ended December 31, 2015.

Table of Contents**3. Information by business segment****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 adjusted by: excluding (i) the depreciation, depletion and amortization, (ii) results on measurement or sales of non-current assets, (iii) impairment, (iv) onerous contracts and (v) adding of dividends received from associates and joint ventures.

	Three-months period ended June 30, 2016						Adjusted by			
	Net operating revenue	Cost of goods sold and services rendered	Income statement Selling, administrative and other operating expenses, net	Research and evaluation expenses	Pre operating and operational stoppage	Operating income (loss)	Depreciation, depletion and amortization	Results on measurement or sale of non-current assets	Dividends received from associates and joint ventures	Adjusted EBITDA
<b>Ferrous minerals</b>										
Iron ore	3,508	(1,902)	(235)	(16)	(39)	1,316	274	66		1,408
Pellets	868	(539)	(22)	(4)	(12)	291	86		60	353
Ferroalloys and manganese	61	(58)	2		(4)	1	5			6
Other ferrous products and services	104	(79)	(3)		(1)	21	16			38
	<b>4,541</b>	<b>(2,578)</b>	<b>(258)</b>	<b>(20)</b>	<b>(56)</b>	<b>1,629</b>	<b>381</b>	<b>66</b>	<b>60</b>	<b>2,092</b>
<b>Coal</b>	<b>145</b>	<b>(250)</b>	<b>(8)</b>	<b>(3)</b>	<b>(9)</b>	<b>(125)</b>	<b>15</b>			<b>(130)</b>
<b>Base metals</b>										
Nickel and other products	1,050	(1,128)	(9)	(21)	(44)	(152)	378			(146)
Copper	397	(296)	(10)	(1)		90	60			140
	<b>1,447</b>	<b>(1,424)</b>	<b>(19)</b>	<b>(22)</b>	<b>(44)</b>	<b>(62)</b>	<b>438</b>			<b>286</b>
<b>Fertilizers</b>										

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Potash	22	(30)	(1)	(1)	(3)	(13)	7		
Phosphates	363	(403)	(25)	(4)	(2)	(71)	76		
Nitrogen	60	(49)	(4)	(1)		6	5		
Other fertilizers products	19					19			3
	<b>464</b>	<b>(482)</b>	<b>(30)</b>	<b>(6)</b>	<b>(5)</b>	<b>(59)</b>	<b>88</b>		<b>3</b>
<b>Others</b>	<b>29</b>	<b>(61)</b>	<b>(51)</b>	<b>(27)</b>		<b>(110)</b>	<b>5</b>		<b>54</b>
<b>Total</b>	<b>6,626</b>	<b>(4,795)</b>	<b>(366)</b>	<b>(78)</b>	<b>(114)</b>	<b>1,273</b>	<b>927</b>	<b>66</b>	<b>117</b>

Table of Contents

	Three-months period ended June 30, 2015							Adjusted by		Adjusted EBITDA
	Net operating revenue	Cost of goods sold and services rendered	Selling, administrative and other operating expenses, net	Research and evaluation expenses	Pre operating and operational stoppage	Operating income (loss)	Depreciation, depletion and amortization	Results on measurement or sale of non-current assets	Dividends received from associates and joint ventures	
<b>Ferrous minerals</b>										
Iron ore	3,391	(2,207)	(272)	(36)	(25)	851	293	55		1,192
Pellets	972	(655)	(1)	(1)	(10)	305	88		177	571
Ferroalloys and manganese	53	(55)			(6)	(8)	5			(1)
Other ferrous products and services	136	(117)	(3)	(1)	(1)	14	23		8	42
	<b>4,552</b>	<b>(3,034)</b>	<b>(276)</b>	<b>(38)</b>	<b>(42)</b>	<b>1,162</b>	<b>409</b>	<b>55</b>	<b>185</b>	<b>1,811</b>
<b>Coal</b>	<b>146</b>	<b>(233)</b>	<b>(45)</b>	<b>(6)</b>	<b>(12)</b>	<b>(150)</b>	<b>48</b>			<b>(10)</b>
<b>Base metals</b>										
Nickel and other products	1,240	(1,167)	(29)	(23)	(183)	(162)	398			23
Copper	408	(274)	(14)	(2)		118	52			17
	<b>1,648</b>	<b>(1,441)</b>	<b>(43)</b>	<b>(25)</b>	<b>(183)</b>	<b>(44)</b>	<b>450</b>			<b>40</b>
<b>Fertilizers</b>										
Potash	31	(28)	7	(13)	(4)	(7)	7			
Phosphates	445	(358)	(5)	(7)	(17)	58	65			12
Nitrogen	78	(56)			(1)	21	5			2
Other fertilizers products	14					14				1
	<b>568</b>	<b>(442)</b>	<b>2</b>	<b>(20)</b>	<b>(22)</b>	<b>86</b>	<b>77</b>			<b>16</b>
<b>Others</b>	<b>51</b>	<b>(36)</b>	<b>(55)</b>	<b>(29)</b>		<b>(69)</b>	<b>4</b>			<b>(6)</b>
<b>Total</b>	<b>6,965</b>	<b>(5,186)</b>	<b>(417)</b>	<b>(118)</b>	<b>(259)</b>	<b>985</b>	<b>988</b>	<b>55</b>	<b>185</b>	<b>2,211</b>

Table of Contents

	Six-months period ended June 30, 2016							Adjusted by	
	Statement of income							Results on	Dividends
	Net operating	Cost of goods	Selling,	Research and	Pre operating	Depreciation	Operating	measurement	received from
	revenue	sold and	administrative	evaluation	and	and other	income (loss)	or sale of non-	associates and
		services	and other	expenses	operational	results		current assets	joint ventures
		rendered	operating		stoppage		depreciation,		
			expenses, net				depletion and		
							amortization		
<b>Ferrous minerals</b>									
Iron ore	6,425	(3,431)	(407)	(27)	(76)		2,484	515	66
Pellets	1,621	(1,051)	(42)	(4)	(17)		507	166	0
Ferroalloys and manganese	108	(110)	4		(8)		(6)	13	
Other ferrous products and services	191	(155)	1		(2)		35	34	
	<b>8,345</b>	<b>(4,747)</b>	<b>(444)</b>	<b>(31)</b>	<b>(103)</b>		<b>3,020</b>	<b>728</b>	<b>66</b>
<b>Coal</b>	<b>299</b>	<b>(575)</b>	<b>50</b>	<b>(5)</b>	<b>(10)</b>		<b>(241)</b>	<b>38</b>	
<b>Base metals</b>									
Nickel and other products	2,050	(2,240)	(30)	(36)	(94)		(350)	742	
Copper	750	(530)	(8)	(2)			210	103	
	<b>2,800</b>	<b>(2,770)</b>	<b>(38)</b>	<b>(38)</b>	<b>(94)</b>		<b>(140)</b>	<b>845</b>	
<b>Fertilizers</b>									
Potash	45	(54)	3	(3)	(7)		(16)	13	
Phosphates	653	(692)	(39)	(7)	(2)		(87)	132	
Nitrogen	118	(96)	(6)	(1)			15	10	
Other fertilizers products	32						32		
	<b>848</b>	<b>(842)</b>	<b>(42)</b>	<b>(11)</b>	<b>(9)</b>		<b>(56)</b>	<b>155</b>	
<b>Others</b>	<b>53</b>	<b>(110)</b>	<b>(46)</b>	<b>(53)</b>			<b>(156)</b>	<b>11</b>	
<b>Total</b>	<b>12,345</b>	<b>(9,044)</b>	<b>(520)</b>	<b>(138)</b>	<b>(216)</b>		<b>2,427</b>	<b>1,777</b>	<b>66</b>

Table of Contents

	Six-months period ended June 30, 2015							Adjusted by		Adjusted EBITDA
	Net operating revenue	Cost of goods sold and services rendered	Selling, administrative and other operating expenses, net	Research and evaluation expenses	Pre operating and operational stoppage	Operating income (loss)	Depreciation, depletion and amortization	Results on measurement or sale of non-current assets	Dividends received from associates and joint ventures	
<b>Ferrous minerals</b>										
Iron ore	6,107	(4,430)	(472)	(69)	(55)	1,081	652	55		1,781
Pellets	1,937	(1,327)	2	(2)	(19)	591	173		203	967
Ferroalloys and manganese	123	(106)	(1)		(13)	3	11			11
Other ferrous products and services	253	(236)	4	(2)	(1)	18	43		8	61
	<b>8,420</b>	<b>(6,099)</b>	<b>(467)</b>	<b>(73)</b>	<b>(88)</b>	<b>1,693</b>	<b>879</b>	<b>55</b>	<b>211</b>	<b>2,833</b>
<b>Coal</b>	<b>291</b>	<b>(442)</b>	<b>(115)</b>	<b>(11)</b>	<b>(24)</b>	<b>(301)</b>	<b>71</b>			<b>(23)</b>
<b>Base metals</b>										
Nickel and other products	2,575	(2,360)	(84)	(50)	(370)	(289)	820			532
Copper	783	(546)	(10)	(3)	(1)	223	100			327
Other base metals products			230			230				230
	<b>3,358</b>	<b>(2,906)</b>	<b>136</b>	<b>(53)</b>	<b>(371)</b>	<b>164</b>	<b>920</b>			<b>1,081</b>
<b>Fertilizers</b>										
Potash	61	(54)	5	(23)	(8)	(19)	13			6
Phosphates	802	(670)	(21)	(13)	(30)	68	120			182
Nitrogen	157	(117)	(3)	(1)	(2)	34	11			42
Other fertilizers products	26					26				26
	<b>1,046</b>	<b>(841)</b>	<b>(19)</b>	<b>(37)</b>	<b>(40)</b>	<b>109</b>	<b>144</b>			<b>253</b>
<b>Others</b>	<b>90</b>	<b>(66)</b>	<b>92</b>	<b>(63)</b>		<b>53</b>	<b>9</b>	<b>(193)</b>	<b>1</b>	<b>(13)</b>
<b>Total</b>	<b>13,205</b>	<b>(10,354)</b>	<b>(373)</b>	<b>(237)</b>	<b>(523)</b>	<b>1,718</b>	<b>2,023</b>	<b>(138)</b>	<b>212</b>	<b>3,811</b>

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

	As at June 30, 2016				Three-months	Six-months
	Trade receivables	Product inventory	Investments in associates and joint ventures	Property, plant and equipment and intangible assets	period ended June 30, 2016 Additions to property, plant and equipment and intangible (i)	period ended June 30, 2016 Additions to property, plant and equipment and intangible (i)
Ferrous minerals	1,582	1,134	1,790	34,078	766	1,683
Coal	62	31	291	1,968	157	290
Base metals	660	1,199	16	24,946	233	502
Fertilizers	100	379	90	4,543	68	107
Others	48	3	1,776	2,337	8	16
<b>Total</b>	<b>2,452</b>	<b>2,746</b>	<b>3,963</b>	<b>67,872</b>	<b>1,232</b>	<b>2,598</b>

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(i) Includes only cash effect.

	Year ended December 31, 2015				Three-months	Six-months
	Trade receivables	Product inventory	Investments in associates and joint ventures	Property, plant and equipment and intangible assets	period ended June 30, 2015 Additions to property, plant and equipment and intangible (i)	period ended June 30, 2015 Additions to property, plant and equipment and intangible (i)
Ferrous minerals	873	1,036	1,479	28,202	1,283	2,759
Coal	44	53	306	1,812	392	746
Base metals	428	1,166	17	23,522	365	653
Fertilizers	94	295	75	3,866	50	106
Others	37	3	1,063	2,024	21	47
<b>Total</b>	<b>1,476</b>	<b>2,553</b>	<b>2,940</b>	<b>59,426</b>	<b>2,111</b>	<b>4,311</b>

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(i) Includes only cash effect.

**c) Revenues by geographic area**

	Three-months period ended June 30, 2016				Total
	Coal	Base metals	Fertilizers	Others	



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**Ferrous  
minerals**

Americas, except United States and Brazil	74	11	280	7		372
United States of America	53		177			230
Europe	593	22	495	27		1,137
Middle East/Africa/Oceania	287	22	4	3		316
Japan	300	31	74			405
China	2,581	6	113			2,700
Asia, except Japan and China	229	53	262	19		563
Brazil	424		42	408	29	903
<b>Net operating revenue</b>	<b>4,541</b>	<b>145</b>	<b>1,447</b>	<b>464</b>	<b>29</b>	<b>6,626</b>

**Three-months period ended June 30, 2015**

	<b>Ferrous minerals</b>	<b>Coal</b>	<b>Base metals</b>	<b>Fertilizers</b>	<b>Others</b>	<b>Total</b>
Americas, except United States and Brazil	102	4	332	18		456
United States of America	5		229		7	241
Europe	632	38	573	34		1,277
Middle East/Africa/Oceania	283	33	17			333
Japan	358	10	49			417
China	2,392	12	180			2,584
Asia, except Japan and China	330	43	218	26		617
Brazil	450	6	50	490	44	1,040
<b>Net operating revenue</b>	<b>4,552</b>	<b>146</b>	<b>1,648</b>	<b>568</b>	<b>51</b>	<b>6,965</b>

Table of Contents

	Six-months period ended June 30, 2016					Total
	Ferrous minerals	Coal	Base metals	Fertilizers	Others	
Americas, except United States and Brazil	165	14	558	17		754
United States of America	87		348		4	439
Europe	1,078	29	918	48		2,073
Middle East/Africa/Oceania	451	41	13	3		508
Japan	554	65	126			745
China	4,853	31	270			5,154
Asia, except Japan and China	385	119	507	39		1,050
Brazil	772		60	741	49	1,622
<b>Net operating revenue</b>	<b>8,345</b>	<b>299</b>	<b>2,800</b>	<b>848</b>	<b>53</b>	<b>12,345</b>

	Six-months period ended June 30, 2015					Total
	Ferrous minerals	Coal	Base metals	Fertilizers	Others	
Americas, except United States and Brazil	197	4	637	33		871
United States of America	15		468		15	498
Europe	1,281	51	1,010	62		2,404
Middle East/Africa/Oceania	578	67	56	3		704
Japan	766	39	194			999
China	4,026	12	322			4,360
Asia, except Japan and China	639	102	494	37		1,272
Brazil	918	16	177	911	75	2,097
<b>Net operating revenue</b>	<b>8,420</b>	<b>291</b>	<b>3,358</b>	<b>1,046</b>	<b>90</b>	<b>13,205</b>

**4. Relevant event Dam failure at Samarco****a) Historical events**

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

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Following the dam failure, the Brazilian mining authority (DNPM) and the Minas Gerais State Environmental Secretary (SEMAD), ordered the suspension of Samarco's operations.

Samarco and its shareholders, Vale S.A. and BHP Billiton Brasil Ltda. ( BHPB ), entered into an Agreement in connection with the R\$20.2 billion (US\$6.3 billion) lawsuit ( Agreement ) on March 2, 2016 with the federal government, the two Brazilian states affected by the failure (Espírito Santo and Minas Gerais) and other governmental authorities in order to establish the necessary programs for remediation and compensation of the areas and communities affected by Samarco's dam failures.

The term of the Agreement is 15 years, renewable for successive one-year periods until all the obligations under the Agreement have been fulfilled.

Under the Agreement, Samarco, Vale S.A. and BHPB agreed to establish a foundation to develop and implement social and economic remediation and compensation, to be funded by Samarco as follows: R\$2.0 billion (US\$623) in 2016, R\$1.2 billion (US\$374) in 2017 and R\$1.2 billion (US\$374) in 2018. Amounts that Samarco already spent on remediation and compensation will be considered within its funding obligations. From 2019 to 2021, Samarco agreed to provide funding based on the amounts needed to implement the projects approved for the relevant year, subject to an annual minimum of R\$800 (US\$249) and an annual maximum of R\$1.6 billion (US\$498). From 2022 onwards, Samarco will provide the necessary funding in order to complete remaining remediation and compensation programs approved for each relevant year. The foundation will allocate an annual amount of R\$240 (US\$75) 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\$156) for basic sanitation programs in the affected areas.

To the extent that Samarco does not meet its funding obligations in the foundation, each of Vale S.A. and BHPB will provide, under the terms of the Agreement, funds to the Foundation in proportion to its 50% equity interest in Samarco.

Table of Contents

**b) New facts occurred in the second quarter of 2016**

According to the analyses prepared by independent experts engaged by Samarco, the amount to comply with the obligations under the Agreement to remediate and compensate the impacts of the dam failure, was estimated at R\$11,121 (US\$3,465), of which R\$656 (US\$204) has already been disbursed by Samarco until June 30, 2016. The Company's proportional estimated share of the remaining balance discounted at a free-risk rate, amounts R\$3,733 (US\$1,163) at June 30, 2016.

Samarco is currently unable to resume its mining and processing operations. Samarco's original estimate was to resume its operations in the last quarter of 2016. That estimate was based on studies of technical solutions available, combined with the progress of the repair works on the remaining dam structures after the incident and the formal scope defined under the Agreement to remediate and compensate the communities impacted by the incident.

However, in view of the current stage of the necessary procedures to resume operations and the uncertainties related to the licensing approval by the governmental authorities, Samarco cannot make a reliable estimate of how and when its operations will resume.

Accordingly, the Company recognized a provision of R\$3,733 (US\$1,163) as a liability on the interim financial statements as of June 30, 2016, which represents its best estimate of the obligation under the Agreement reflected in the income statement as Other results in associates and joint ventures

At each reporting period, the Company will reassess the key assumptions used by Samarco in the preparation of the projected future estimated cash flows, as well as the assumptions for defining the scope and assessing the respective provision, in order to timely reflect in the financial statements any changes in judgment used by management and/or any occurrence of new facts and circumstances.

**c) Contingencies related to Samarco dam failure**

On May 5, 2016, the Agreement was ratified by the Federal Regional Court (TRF), 1st Region signed in March 2, 2016. In July, 2016 the Superior Court of Justice (STJ) in Brazil issued an interim order, suspending the decision of the Federal Regional Court (TRF), 1st Region, which ratified the Agreement. With this interim order, the public civil claim with the amount of R\$20.2 billion (US\$6.3 billion) indicated by plaintiffs, filed by the Brazilian Authorities, was reinstated.

Only the judicial decision that ratified the Agreement was suspended and, therefore, the Agreement between the parties remains valid, and the parties will continue fulfilling their obligations under the Agreement

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 American Depositary Receipts under U.S. federal securities laws. The lawsuits allege that Vale S.A. 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 procedures. The plaintiffs have not specified an amount of alleged damages in these actions. Vale S.A. intends to vigorously mount a full defense against the allegations. 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. On April 29, 2016, lead plaintiffs filed a Consolidated Amended Complaint that will serve as the operative complaint in the litigation. In July 2016, Vale S.A. and the individual defendants filed a motion to dismiss the Amended Complaint.

On May 3, 2016, the Federal Prosecution Office (MPF) filed a public civil action against Samarco and its shareholders and presented several demands, including: (i) the adoption of measures for mitigating the social, economic and environmental impacts resulting from the Fundão dam failure and other emergency measures; (ii) the payment of compensation to the community; and (iii) payments for the collective moral damage. The initial action value claimed by the Federal Prosecution Office (MPF) is R\$155 billion (US\$48 billion).

In addition, Samarco and its shareholders were named as a defendant in several other lawsuits brought by individuals, corporations and governmental entities seeking damages for material or personnel damages.

All lawsuits and petitions are at very early stages, thus it not possible to determine a range of outcomes and/or reliable estimates of the potential exposure at this time. No contingent liability was quantified and no provision was recognized.

Table of Contents**d) Other subjects**

On June 28, 2016, the Foundation was established by Samarco and its shareholders, with a commencement date estimated to occur on August 1, 2016.

Vale S.A. intends to make short-term facilities of up to US\$100 to Samarco to support its operations, without undertaking an obligation to Samarco. Funds will be released on an as-needed basis and will be subject to achieving certain milestones. Likewise, BHPB will make available a similar short-term facility.

**5. Assets held for sale**

	Shipping assets	June 30, 2016 Nacala	Total	December 31, 2015 Nacala
<b>Assets held for sale</b>				
Accounts receivable		2	2	3
Other current assets		56	56	134
Property, plant and equipment and Intangible, net	497	4,103	4,600	3,907
<b>Total assets</b>	<b>497</b>	<b>4,161</b>	<b>4,658</b>	<b>4,044</b>
<b>Liabilities associated with assets held for sale</b>				
Suppliers and contractors		64	64	93
Other current liabilities		16	16	14
<b>Total liabilities</b>		<b>80</b>	<b>80</b>	<b>107</b>
<b>Net assets held for sale</b>	<b>497</b>	<b>4,081</b>	<b>4,578</b>	<b>3,937</b>

**a) Shipping assets**

In June 2016, Vale approved a plan to dispose its fleet of ships. As a consequence, the referred assets were reclassified to non-current assets held for sale and a loss of US\$58 was recorded in the income statement as Results on measurement or sale of non-current assets .

**b) Coal - 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 June 2016, completion of the transaction remains dependent upon certain conditions. The Company remains committed to its plan to sell its 50% interest.

## 6. Acquisitions and divestitures

### 2016

**Shipping assets** In June 2016, the Company concluded the sale of three vessels VLOC s of 400,000 tons for the consortium led by ICBC *International* (ICBC). The Company will receive US\$269 upon delivery of the vessels, which is expected to happen by August, 2016. A loss of US\$8 was recognized in the income statement as Results on measurement or sales of non-current assets .

**Thyssenkrupp Companhia Siderúrgica do Atlântico Ltd ( CSA )** In April 2016, the Company sold 100% of its interest at CSA (26.87%) for a symbolic amount. The transaction resulted in US\$75 loss on recycling the Cumulative translation adjustments recognized in the income statement as Others results in associates and joint ventures .

**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 .

**Shandong Yankuang International Coking Co., Ltd. ( Yankuang )** - In the second quarter of 2015, the Company concluded the sale of its participation in Yankuang, a producer of coke, methanol and other products. In this transaction, Vale recognized a gain of US\$79 as others results in associates and joint ventures .





Table of Contents

**Shipping assets** - In the second quarter of 2015, the Company and China Ocean Shipping Company ( Cosco ), completed the sale of four very large ore carriers. The Company recognized a loss of US\$55 as Results on measurement or sale of non-current assets .

## 7. Cash and cash equivalents

	June 30, 2016	December 31, 2015
Cash and bank deposits	2,581	2,018
Short-term investments	1,587	1,573
	<b>4,168</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.

## 8. Accounts receivable

	June 30, 2016	December 31, 2015
Trade receivables	2,515	1,534
Provision for doubtful debts	(63)	(58)
	<b>2,452</b>	<b>1,476</b>
Trade receivables related to the steel sector - %	76.52%	75.32%

	Three-months period ended June 30		Six-months period ended June 30	
	2016	2015	2016	2015
Provision for doubtful debts recorded in the income statement	(5)	(1)	(7)	(1)
Trade receivables write-offs recorded in the income statement	3		4	(7)

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

**9. Inventories**

	June 30, 2016	December 31, 2015
Product inventory	3,084	3,071
Impairment of product inventory	(338)	(518)
	<b>2,746</b>	<b>2,553</b>
Consumable inventory	1,120	975
<b>Total</b>	<b>3,866</b>	<b>3,528</b>

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

Table of Contents**10. Investments in associates and joint ventures**

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

	2016	2015
<b>Balance at March 31,</b>	<b>3,397</b>	<b>3,812</b>
Additions (i)	136	8
Disposals (ii)		79
Translation adjustment	327	110
Equity results in income statement	190	218
Dividends declared	(87)	(56)
Others		37
<b>Balance at June 30,</b>	<b>3,963</b>	<b>4,208</b>

(i) Refers to capital contribution of US\$124 to CSP - Companhia Siderúrgica do Pecém and US\$12 to Aliança Geração de Energia, with no change in the company's interest in associates equity.

(ii) Refers to Shandong Yankuang International Coking Co., Ltd.

	2016	2015
<b>Balance at January 1st,</b>	<b>2,940</b>	<b>4,133</b>
Acquisitions (i)		579
Additions (ii)	219	18
Disposals (iii)		79
Translation adjustment	586	(495)
Equity results in income statement	346	(53)
Dividends declared	(116)	(83)
Others	(12)	30
<b>Balance at June 30,</b>	<b>3,963</b>	<b>4,208</b>

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

(ii) Refers to capital contribution of US\$187 to CSP - Companhia Siderúrgica do Pecém and US\$32 to Aliança Geração de Energia, with no change in the company's interest in associates equity.

(iii) Refers to Shandong Yankuang International Coking Co., Ltd.

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 June 30, 2016, are respectively US\$133 and US\$(3). 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 opinion was issued. Vale believes that the auditor's qualification has no quantitative or qualitative impact on its interim financial information as of June 30, 2016.

## 11. Intangibles

Changes in intangibles are as follows:

	Goodwill (i)	Concessions (ii)	Right of use (ii)	Software (ii)	Total
<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>
Additions		444		4	448
Disposals		(5)			(5)
Amortization		(42)		(40)	(82)
Translation adjustment	124	295	(9)	47	457
Transfers		77			77
<b>Balance at June 30, 2016</b>	<b>3,219</b>	<b>3,123</b>	<b>140</b>	<b>431</b>	<b>6,913</b>
Cost	3,219	4,230	222	1,580	9,251
Accumulated amortization		(1,107)	(82)	(1,149)	(2,338)
	<b>3,219</b>	<b>3,123</b>	<b>140</b>	<b>431</b>	<b>6,913</b>

	Goodwill (i)	Concessions (ii)	Right of use (ii)	Software (ii)	Total
<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>
Additions		236		17	253
Disposals		(4)			(4)
Amortization		(40)	(11)	(42)	(93)
Translation adjustment	70	62	8	18	158
<b>Balance at June 30, 2015</b>	<b>3,464</b>	<b>2,146</b>	<b>254</b>	<b>476</b>	<b>6,340</b>
Cost	3,464	3,248	517	1,247	8,476
Accumulated amortization		(1,102)	(263)	(771)	(2,136)
	<b>3,464</b>	<b>2,146</b>	<b>254</b>	<b>476</b>	<b>6,340</b>

Table of Contents

	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		808	1	5	814
Disposals		(5)			(5)
Amortization		(73)	(1)	(77)	(151)
Translation adjustment	263	502		82	847
Transfers		77	(67)	74	84
<b>Balance at June 30, 2016</b>	<b>3,219</b>	<b>3,123</b>	<b>140</b>	<b>431</b>	<b>6,913</b>
Cost	3,219	4,230	222	1,580	9,251
Accumulated amortization		(1,107)	(82)	(1,149)	(2,338)
	<b>3,219</b>	<b>3,123</b>	<b>140</b>	<b>431</b>	<b>6,913</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		358		91	449
Disposals		(17)			(17)
Amortization		(82)	(22)	(86)	(190)
Translation adjustment	(335)	(326)	(21)	(79)	(761)
Acquisition of subsidiary	39				39
<b>Balance at June 30, 2015</b>	<b>3,464</b>	<b>2,146</b>	<b>254</b>	<b>476</b>	<b>6,340</b>
Cost	3,464	3,248	517	1,247	8,476
Accumulated amortization		(1,102)	(263)	(771)	(2,136)
	<b>3,464</b>	<b>2,146</b>	<b>254</b>	<b>476</b>	<b>6,340</b>

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(i) Indefinite useful life.

(ii) Finite useful life.

## 12. Property, plant and equipment

Changes in property, plant and equipment are as follows:

	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
<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>
Additions (i)							1,096	1,096
Disposals				(2)		(335)	(20)	(357)
Depreciation and amortization		(115)	(149)	(236)	(228)	(169)		(897)
						(497)		(497)

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Transfers to non-current assets held for sale								
Translation adjustment	64	255	570	341	321	465	1,733	3,749
Assets retirement obligations					17			17
Transfers	6	339	99	196	118	(261)	(574)	(77)
<b>Balance at June 30, 2016</b>	<b>891</b>	<b>10,320</b>	<b>9,232</b>	<b>7,983</b>	<b>11,166</b>	<b>6,848</b>	<b>14,519</b>	<b>60,959</b>
Cost	891	16,082	15,013	14,050	18,876	10,450	14,519	89,881
Accumulated depreciation		(5,762)	(5,781)	(6,067)	(7,710)	(3,602)		(28,922)
	<b>891</b>	<b>10,320</b>	<b>9,232</b>	<b>7,983</b>	<b>11,166</b>	<b>6,848</b>	<b>14,519</b>	<b>60,959</b>

	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
<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>
Additions (i)							1,710	1,710
Disposals			(6)	(15)		(512)		(533)
Depreciation and amortization		(142)	(186)	(268)	(243)	(181)		(1,020)
Translation adjustment	24	94	198	66	268	173	589	1,412
Transfers	52	770	261	630	443	869	(3,025)	
<b>Balance at June 30, 2015</b>	<b>999</b>	<b>12,064</b>	<b>10,087</b>	<b>9,379</b>	<b>13,143</b>	<b>10,330</b>	<b>15,275</b>	<b>71,277</b>
Cost	999	14,663	15,135	14,461	19,091	14,549	15,275	94,173
Accumulated depreciation		(2,599)	(5,048)	(5,082)	(5,948)	(4,219)		(22,896)
	<b>999</b>	<b>12,064</b>	<b>10,087</b>	<b>9,379</b>	<b>13,143</b>	<b>10,330</b>	<b>15,275</b>	<b>71,277</b>

Table of Contents

	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)							1,895	1,895
Disposals		(1)	(1)	(13)	(3)	(343)	(21)	(382)
Depreciation and amortization		(229)	(289)	(450)	(405)	(310)		(1,683)
Transfers to non-current assets held for sale						(497)		(497)
Translation adjustment	122	882	1,083	713	1,003	1,024	2,726	7,553
Assets retirement obligations					55			55
Transfers	3	567	147	426	212	(232)	(1,207)	(84)
<b>Balance at June 30, 2016</b>	<b>891</b>	<b>10,320</b>	<b>9,232</b>	<b>7,983</b>	<b>11,166</b>	<b>6,848</b>	<b>14,519</b>	<b>60,959</b>
Cost	891	16,082	15,013	14,050	18,876	10,450	14,519	89,881
Accumulated depreciation		(5,762)	(5,781)	(6,067)	(7,710)	(3,602)		(28,922)
	<b>891</b>	<b>10,320</b>	<b>9,232</b>	<b>7,983</b>	<b>11,166</b>	<b>6,848</b>	<b>14,519</b>	<b>60,959</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)							3,807	3,807
Disposals		(5)	(7)	(20)	(151)	(518)	(2)	(703)
Depreciation and amortization		(277)	(394)	(576)	(460)	(379)		(2,086)
Translation adjustment	(132)	(1,529)	(1,360)	(869)	(1,161)	(1,112)	(1,820)	(7,983)
Transfers	62	2,221	1,035	1,556	(14)	1,266	(6,126)	
Acquisition of subsidiary				1		119		120
<b>Balance at June 30, 2015</b>	<b>999</b>	<b>12,064</b>	<b>10,087</b>	<b>9,379</b>	<b>13,143</b>	<b>10,330</b>	<b>15,275</b>	<b>71,277</b>
Cost	999	14,663	15,135	14,461	19,091	14,549	15,275	94,173
Accumulated depreciation		(2,599)	(5,048)	(5,082)	(5,948)	(4,219)		(22,896)
	<b>999</b>	<b>12,064</b>	<b>10,087</b>	<b>9,379</b>	<b>13,143</b>	<b>10,330</b>	<b>15,275</b>	<b>71,277</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	
	June 30, 2016	December 31, 2015	June 30, 2016	December 31, 2015
<b>Debt contracts in the international markets</b>				
<b>Floating rates in:</b>				
US\$	234	241	6,956	5,174
<b>Fixed rates in:</b>				
US\$	1,612	1,191	12,496	12,923
EUR			1,655	1,633
Other currencies	14	14	172	169
<b>Accrued charges</b>	<b>285</b>	<b>326</b>		
	<b>2,145</b>	<b>1,772</b>	<b>21,279</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	305	212	5,678	4,709
Basket of currencies and US\$ indexed to LIBOR	319	290	1,281	1,342
<b>Fixed rates in:</b>				
R\$	77	63	288	268
<b>Accrued charges</b>	<b>307</b>	<b>169</b>	<b>135</b>	<b>129</b>
	<b>1,008</b>	<b>734</b>	<b>7,382</b>	<b>6,448</b>
	<b>3,153</b>	<b>2,506</b>	<b>28,661</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	35		424	459	1,628
2017	972	1,212	977	3,161	1,690
2018	2,153	827	1,054	4,034	1,524
2019	716	1,000	1,231	2,947	1,308
2020	3,436	1,343	830	5,609	1,158
2021	303	1,343	893	2,539	948
Between 2022 and 2025	1,260	3,332	1,017	5,609	2,380
2026 onwards	85	6,491	153	6,729	5,809



8,960	15,548	6,579	31,087	16,445
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(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 June 30, 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 June 30, 2016, the average annual interest rates by currency are as follows:

	Average interest rate (i)	Total debt
<b>Loans and borrowings in</b>		
US\$	4.46%	23,163
R\$ (ii)	11.13%	6,782
EUR (iii)	4.06%	1,683
Other currencies	4.35%	186
		<b>31,814</b>

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(i) In order to determine the average interest rate for debt contracts with floating rates, the Company used the last renegotiated rate at June 30, 2016.

(ii) R\$ denominated debt that bears interest at IPCA, CDI, TR or TJLP, plus spread. For a total of US\$4,656, 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 June 30, 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	1,800
<b>Financing lines</b>					
BNDES (i)	R\$	April 2008	10 years	2,274	346
BNDES - CLN 150	R\$	September 2012	10 years	1,210	6
BNDES - S11D e S11D Logística	R\$	May 2014	10 years	1,920	762

(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**

During 2016, the Company drew down part of its revolving credit facilities of which US\$2,000 is outstanding at June 30, 2016.

In June 2016, the Company issued through its wholly owned subsidiary Vale Overseas Limited the guaranteed notes due 2021 in the amount of US\$1,250. The notes bears 5.875% coupon per year, payable semi-annually, and were sold at a price of 100% of the principal amount. These notes will mature in June 2021.

**d) Guarantees**

As at June 30, 2016 and December 31, 2015, loans and borrowings are secured by property, plant and equipment and receivables in the amount of US\$477 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 June 30, 2016 and December 31, 2015.

Table of Contents**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 March 31, 2016</b>	<b>218</b>	<b>103</b>	<b>507</b>	<b>23</b>	<b>851</b>
Additions	18	44	58	3	123
Reversals	(9)	(19)	(30)	(2)	(60)
Payments	(33)	(26)	(44)		(103)
Indexation and interest	26	(1)	10	(1)	34
Translation adjustment	11	11	54	3	79
<b>Balance at June 30, 2016</b>	<b>231</b>	<b>112</b>	<b>555</b>	<b>26</b>	<b>924</b>

	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
<b>Balance at March 31, 2015</b>	<b>305</b>	<b>114</b>	<b>596</b>	<b>72</b>	<b>1,087</b>
Additions	13	31	37		81
Reversals	(6)	(19)	(15)		(40)
Payments	(5)	(1)	(22)	(5)	(33)
Indexation and interest	8	2	9	1	20
Translation adjustment	7	4	20	1	32
<b>Balance at June 30, 2015</b>	<b>322</b>	<b>131</b>	<b>625</b>	<b>69</b>	<b>1,147</b>

	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	21	56	105	5	187
Reversals	(18)	(23)	(48)	(4)	(93)
Payments	(95)	(44)	(68)		(207)
Indexation and interest	7	23	13		43
Translation adjustment	47	21	99	5	172
<b>Balance at June 30, 2016</b>	<b>231</b>	<b>112</b>	<b>555</b>	<b>26</b>	<b>924</b>

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	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	158	46	72		276
Reversals	(180)	(30)	(42)		(252)
Payments	(3)	(1)	(26)	(20)	(50)
Indexation and interest	17	15	16	4	52
Translation adjustment	(36)	(17)	(101)	(7)	(161)
<b>Balance at June 30, 2015</b>	<b>322</b>	<b>131</b>	<b>625</b>	<b>69</b>	<b>1,147</b>

Table of Contents**b) Contingent liabilities**

Contingent liabilities of administrative and judicial claims, with expectation of loss classified as possible, and for which the recognition of a provision is not considered necessary by the Company, based on legal advice are as follows:

	June 30, 2016	December 31, 2015
Tax litigation	7,227	5,326
Civil litigation	1,624	1,335
Labor litigation	2,302	1,866
Environmental litigation	1,819	1,381
<b>Total</b>	<b>12,972</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 refers basically to income tax on tax incentive , and new tax enforcement on Brazilian federal contributions ( PIS/ COFINS ), circulation of goods ( ICMS ) and CFEM (Compensação Financeira pela Exploração de Recursos Minerais).

**ii - Civil litigation** - Most of those claims 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 related to contractual disputes regarding inflation index.

**iii - Labor litigation** - Represents individual claims by employees and service providers, primarily involving demands for additional compensation for overtime work, time spent commuting or health and safety conditions; and 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.

	June 30, 2016	December 31, 2015
Tax litigation	262	211
Civil litigation	102	102
Labor litigation	705	553
Environmental litigation	21	16
<b>Total</b>	<b>1,090</b>	<b>882</b>

**d) Others**

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.

For contingencies related to Samarco Mineração S.A., see note 4.

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

Changes in deferred tax are as follows:

	Assets	Liabilities	Total
<b>Balance at March 31, 2016</b>	<b>7,675</b>	<b>1,817</b>	<b>5,858</b>
Effect in income statement	(918)	(11)	(907)
Transfers between asset and liabilities	59	59	
Translation adjustment	462	(75)	537
Other comprehensive income	11	(51)	62
<b>Balance at June 30, 2016</b>	<b>7,289</b>	<b>1,739</b>	<b>5,550</b>

	Assets	Liabilities	Total
<b>Balance at March 31, 2015</b>	<b>4,374</b>	<b>3,099</b>	<b>1,275</b>
Effect in income statement	(163)	(45)	(118)
Translation adjustment	73	(11)	84
Other comprehensive income	16	46	(30)
<b>Balance at June 30, 2015</b>	<b>4,300</b>	<b>3,089</b>	<b>1,211</b>

	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	(1,572)	(55)	(1,517)
Transfers between asset and liabilities	144	144	
Translation adjustment	942	49	893
Other comprehensive income	(129)	(69)	(60)
<b>Balance at June 30, 2016</b>	<b>7,289</b>	<b>1,739</b>	<b>5,550</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	760	(52)	812
Translation adjustment	(442)	(197)	(245)
Other comprehensive income	17	(3)	20
Acquisition of subsidiary	(11)		(11)
<b>Balance at June 30, 2015</b>	<b>4,300</b>	<b>3,089</b>	<b>1,211</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-months period ended June 30		Six-months period ended June 30	
	2016	2015	2016	2015
<b>Net income (loss) before income taxes</b>	<b>2,441</b>	<b>1,814</b>	<b>5,176</b>	<b>(2,216)</b>
<b>Income taxes at statutory rates - 34%</b>	<b>(830)</b>	<b>(617)</b>	<b>(1,760)</b>	<b>753</b>
<b>Adjustments that affect the basis of taxes:</b>				
Income tax benefit from interest on stockholders' equity		166		356
Tax incentives	95	25	98	25
Results of overseas companies taxed by different rates which differs from the parent company rate		286		(63)
Equity results	63	74	120	(18)
Additions (reversals) of tax loss carry forward	(223)		(166)	
Unrecognized tax losses of the period	(164)		(349)	
Others results in associates and joint ventures	(353)		(353)	
Others	92	(119)	135	(378)
<b>Income taxes</b>	<b>(1,320)</b>	<b>(185)</b>	<b>(2,275)</b>	<b>675</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 June 30, 2016, the balance of US\$5,455 (US\$442 as current and US\$5,013 as non-current) is due in 148 remaining monthly installments, bearing interest at the SELIC rate.

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

	Overfunded pension plans	June 30, 2016 Underfunded pension plans	Others benefits	Overfunded pension plans	December 31, 2015 Underfunded pension plans	Others benefits
<b>Balance at beginning of the period</b>	<b>961</b>			<b>1,301</b>		
Interest income	72			130		
Changes in asset ceiling and onerous liability	381			(54)		
Translation adjustment	281			(416)		
<b>Balance at end of the period</b>	<b>1,695</b>			<b>961</b>		
<b>Amount recognized in the balance sheet</b>						
Present value of actuarial liabilities	(3,075)	(4,064)	(1,398)	(2,474)	(3,689)	(1,223)
Fair value of assets	4,770	3,235		3,435	3,094	
Effect of the asset ceiling	(1,695)			(961)		
<b>Liabilities</b>		<b>(829)</b>	<b>(1,398)</b>		<b>(595)</b>	<b>(1,223)</b>
Current liabilities		(20)	(57)		(17)	(51)
Non-current liabilities		(809)	(1,341)		(578)	(1,172)
<b>Liabilities</b>		<b>(829)</b>	<b>(1,398)</b>		<b>(595)</b>	<b>(1,223)</b>

**17. Financial instruments classification**

Financial assets	June 30, 2016			December 31, 2015			Total
	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	
<b>Current</b>							
Cash and cash equivalents	4,168		4,168	3,591			3,591
Financial investments	138		138	28			28
Derivative financial instruments		136	136		121		121
Accounts receivable	2,452		2,452	1,476			1,476
Related parties	68		68	70			70
	<b>6,826</b>	<b>136</b>	<b>6,962</b>	<b>5,165</b>	<b>121</b>		<b>5,286</b>

**Non-current**

Derivative financial instruments		497	497		93	93
Loans	179		179	188		188
Related parties	3		3	1		1
	<b>182</b>	<b>497</b>	<b>679</b>	<b>189</b>	<b>93</b>	<b>282</b>
<b>Total of financial assets</b>	<b>7,008</b>	<b>633</b>	<b>7,641</b>	<b>5,354</b>	<b>214</b>	<b>5,568</b>

**Financial liabilities****Current**

Suppliers and contractors	3,891		3,891	3,365		3,365
Derivative financial instruments		1,010	1,010		2,023	53
Loans and borrowings	3,153		3,153	2,506		2,506
Related parties	600		600	475		475
	<b>7,644</b>	<b>1,010</b>	<b>8,654</b>	<b>6,346</b>	<b>2,023</b>	<b>53</b>

**Non-current**

Derivative financial instruments		1,201	1,201		1,429	1,429
Loans and borrowings	28,661		28,661	26,347		26,347
Related parties	144		144	213		213
Participative stockholders debentures		617	617		342	342
Others (i)		220	220		141	141
	<b>28,805</b>	<b>2,038</b>	<b>30,843</b>	<b>26,560</b>	<b>1,912</b>	<b>28,472</b>
<b>Total of financial liabilities</b>	<b>36,449</b>	<b>3,048</b>	<b>39,497</b>	<b>32,906</b>	<b>3,935</b>	<b>53</b>

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(i) See note 18(a).

Table of Contents**18. Fair value estimate****a) Assets and liabilities measured and recognized at fair value:**

	June 30, 2016			December 31, 2015		
	Level 2	Level 3	Total	Level 2	Level 3	Total
<b>Financial assets</b>						
Derivative financial instruments	308	325	633	214		214
<b>Total</b>	<b>308</b>	<b>325</b>	<b>633</b>	<b>214</b>		<b>214</b>
<b>Financial liabilities</b>						
Derivative financial instruments	1,968	243	2,211	3,505		3,505
Participative stockholders debentures	617		617	342		342
Others (minimum return instrument)		220	220		141	141
<b>Total</b>	<b>2,585</b>	<b>463</b>	<b>3,048</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 above compared to disclosed 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>June 30, 2016</b>				
Debt principal	31,087	30,450	14,884	15,566
<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

	June 30, 2016		December 31, 2015	
	Current	Non-current	Current	Non-current
<b>Derivatives not designated as hedge accounting</b>				
<b>Foreign exchange and interest rate risk</b>				
CDI & TJLP vs. US\$ fixed and floating rate swap	110	54	69	
IPCA swap	7	50	2	16
Pré-dolar swap	2	30		
	<b>119</b>	<b>134</b>	<b>71</b>	<b>16</b>
<b>Commodities price risk</b>				
Nickel	15	2	50	11
Bunker oil	2			
	<b>17</b>	<b>2</b>	<b>50</b>	<b>11</b>
<b>Others</b>		361		66
		<b>361</b>		<b>66</b>
<b>Total</b>	<b>136</b>	<b>497</b>	<b>121</b>	<b>93</b>

Table of Contents

	June 30, 2016		December 31, 2015	
	Current	Non-current	Current	Non-current
<b>Derivatives not designated as hedge accounting</b>				
<b>Foreign exchange and interest rate risk</b>				
CDI & TJLP vs. US\$ fixed and floating rate swap	615	809	799	1,131
IPCA swap	26	71	21	101
Eurobonds swap	6	33	146	29
Euro Forward	12			
Pre dollar swap	20	43	93	72
	<b>679</b>	<b>956</b>	<b>1,059</b>	<b>1,333</b>
<b>Commodities price risk</b>				
Nickel	15	1	40	10
Bunker oil	316		924	
	<b>331</b>	<b>1</b>	<b>964</b>	<b>10</b>
<b>Others</b>				
		244		86
		<b>244</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>1,010</b>	<b>1,201</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-months period ended June 30		Gain(loss) recognized in other comprehensive income	
	2016	2015	Financial settlement inflows(outflows) 2016	2015	2016	2015
<b>Derivatives not designated as hedge accounting</b>						
<b>Foreign exchange and interest rate risk</b>						
CDI & TJLP vs. US\$ fixed and floating rate swap	444	178	(49)	9		
IPCA swap	31	24		3		
Eurobonds swap	(20)	28		(13)		
Euro forward	(14)					
Pre dollar swap	42	13	(1)	(2)		
	<b>483</b>	<b>243</b>	<b>(50)</b>	<b>(3)</b>		
<b>Commodities price risk</b>						

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Nickel	(13)	(11)	(9)	(11)	
Bunker oil	148	79	(294)	10	
	<b>135</b>	<b>68</b>	<b>(303)</b>	<b>(1)</b>	
<b>Others</b>	<b>141</b>	<b>(66)</b>			
<b>Derivatives designated as cash flow</b>					
<b>hedge accounting</b>					
Bunker oil		(88)		(88)	170
Foreign exchange		(10)		(10)	10
		<b>(98)</b>		<b>(98)</b>	<b>180</b>
<b>Total</b>	<b>759</b>	<b>147</b>	<b>(353)</b>	<b>(102)</b>	<b>180</b>

Table of Contents

	Gain (loss) recognized in the income statement		Six-months period ended June 30 Financial settlement inflows(outflows)		Gain(loss) recognized in other comprehensive income	
	2016	2015	2016	2015	2016	2015
<b>Derivatives not designated as hedge accounting</b>						
<b>Foreign exchange and interest rate risk</b>						
CDI & TJLP vs. US\$ fixed and floating rate swap	838	(772)	(92)	(335)		
IPCA swap	73	(49)	1	7		
Eurobonds swap	(6)	(123)	(142)	(13)		
Euro forward	(12)					
Pre dollar swap	76	(76)	(74)	(4)		
	<b>969</b>	<b>(1,020)</b>	<b>(307)</b>	<b>(345)</b>		
<b>Commodities price risk</b>						
Nickel	(37)	(19)	(26)	(26)		
Bunker oil	134	30	(476)	(145)		
	<b>97</b>	<b>11</b>	<b>(502)</b>	<b>(171)</b>		
<b>Others</b>	<b>136</b>	<b>(71)</b>				
<b>Derivatives designated as cash flow hedge accounting</b>						
Bunker oil		(208)	(51)	(218)	288	
Foreign exchange	(3)	(25)	(3)	(25)	2	7
	<b>(3)</b>	<b>(233)</b>	<b>(54)</b>	<b>(243)</b>	<b>2</b>	<b>295</b>
<b>Total</b>	<b>1,199</b>	<b>(1,313)</b>	<b>(863)</b>	<b>(759)</b>	<b>2</b>	<b>295</b>

The Company recognized as operating income and financial results the loss of US\$88 and gain of US\$235 for the three-months period ended June 30, 2015, and US\$208 and US\$1,105 of losses for the six-month ended June 30, 2015. In 2016, all derivatives impacts were charged to financial results.

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

	<b>Last maturity dates</b>
Currencies and interest rates	July 2023
Bunker oil	December 2016
Nickel	August 2018
Others	December 2027

**Additional information about derivatives financial instruments**



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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 June 30, 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 June 30, 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.

Table of Contentsa) **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			
	June 30, 2016	December 31, 2015			Inflows (Outflows) June 30, 2016	June 30, 2016	2016	2017	2018	2019+			
<b>CDI vs. US\$ fixed rate swap</b>													
Receivable	R\$ 5,739	R\$ 5,239	CDI	107.41%	(540)	(783)	61	49	(382)	15	(173)		
Payable	US\$ 2,427	US\$ 2,288	Fix	3.47%									
<b>TJLP vs. US\$ fixed rate swap</b>													
Receivable			TJLP		(669)	(1,015)	(153)	68	(51)	(215)	(104)	(298)	
	R\$ 5,096	R\$ 5,484	+	1.33%									
Payable	US\$ 2,251	US\$ 2,611	Fix	1.72%									
<b>TJLP vs. US\$ floating rate swap</b>													
Receivable			TJLP		(51)	(63)	(1)	5	(1)	(3)	(4)	(43)	
	R\$ 256	R\$ 267	+	0.92%									
Payable			Libor										
	US\$ 148	US\$ 156	+	-1.21%									
<b>R\$ fixed rate vs. US\$ fixed</b>					(31)	(165)	(74)	24	(16)	(4)	11	(21)	

<b>rate swap</b>									
Receivable	R\$ 1,128	R\$ 1,356	Fix	7.32%					
Payable	US\$ 391	US\$ 528	Fix	-0.83%					
<b>IPCA vs. US\$ fixed rate swap</b>					(56)	(105)	1	11	6 4.9 (67)
Receivable			IPCA						
	R\$ 1,000	R\$ 1,000	+	6.55%					
Payable	US\$ 434	US\$ 434	Fix	3.98%					
<b>IPCA vs. CDI swap</b>					16	2		0.4 (25) (18) (11) 70	
Receivable			IPCA						
	R\$ 1,350	R\$ 1,350	+	6.62%					
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		Average rate	Fair value		Financial Settlement	Value at Risk	Fair value by year		
	June 30, 2016	December 31, 2015		Inflows (Outflows)	June 30, 2016	December 31, 2015	June 30, 2016	2016	2017	2018
<b>EUR fixed rate vs. US\$ fixed rate swap</b>										
				(39)	(175)	(141)	10	(5)	(5)	(28)
Receivable	500	1,000	Fix	3.75%						
Payable	US\$3	US\$302	Fix	4.29%						

Flow	Notional		Bought / Sold	Average rate (USD/EUR)	Fair value		Financial Settlement	Value at Risk	Fair value by year	
	June 30, 2016	December 31, 2015			Inflows (Outflows)	June 30, 2016	December 31, 2015	June 30, 2016	2016	2017
Forwards	500		B	1.143	(12)			6.3		(12)

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		Fair value by year 2016
	June 30, 2016	December 31, 2015			June 30, 2016	December 31, 2015	Inflows (Outflows) June 30, 2016	Value at Risk June 30, 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		Fair value by year 2016
	June 30, 2016	December 31, 2015			June 30, 2016	December 31, 2015	Inflows (Outflows) June 30, 2016	Value at Risk June 30, 2016	

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<b>Bunker Oil protection</b>									
Forwards	705,000	1,867,500	B	511	(180)	(577)	(331)	8	(180)
Call options	1,080,000	2,041,500	B	380	1.86	0.02		0.77	1.86
Put options	1,080,000	2,041,500	S	300	(57)	(297)	(145)	9	(57)
<b>Total</b>					<b>(235)</b>	<b>(873)</b>			<b>(235)</b>

As at June 30, 2016 and December 31, 2015, excludes US\$79 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.

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 Fair value by year			
	June 30, 2016	December 31, 2015			June 30, 2016	December 31, 2015	Inflows (Outflows) June 30, 2016	June 30, 2016	2016	2017	2018
<b>Fixed price sales protection</b>											
Nickel forwards	14,545	16,917	B	10,429	(13)	(46)	(28)	4	(9)	(5)	1
<b>Raw material purchase protection</b>											
Nickel forwards	178	118	S	8,813	(0.11)	0.10	0.10	0.05	(0.11)		
Copper forwards	581	385	S	4,774	(0.04)	0.09	0.08	0.06	(0.04)		
<b>Total</b>					<b>(0.15)</b>	<b>0.19</b>				<b>(0.15)</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) June 30, 2016	Value at Risk June 30, 2016	Fair value by year 2023
	June 30, 2016	December 31, 2015			June 30, 2016	December 31, 2015			
Call options	10,000,000	10,000,000	B	65	36	7		6	36

**d) Call options from debentures**

The company has debentures in which lenders (related parties) 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) June 30, 2016	Value at Risk June 30, 2016	Fair value by year 2027
	June 30, 2016	December 31, 2015			June 30, 2016	December 31, 2015			
Call options	140,239	140,239	S	8,570	(43)	(39)		3	(43)

**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 restrictions and contingent conditions, which are beyond the holder's control, such as illegality due to changes in the law, the contract has a clause that gives the holders (related parties) 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.

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Flow	Notional (quantity, in millions)		Bought / Sold	Average strike (R\$/share)	Fair value		Financial settlement	Value at Risk June 30, 2016	Fair value by year 2016+
	June 30, 2016	December 31, 2015			June 30, 2016	December 31, 2015	Inflows (Outflows) June 30, 2016		
Options	2,139	2,139	B/S	1.9	125	15		9	125

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	Value at Risk June 30, 2016	Fair value by year 2016
	June 30, 2016	December 31, 2015			June 30, 2016	December 31, 2015	Inflows (Outflows) June 30, 2016		
Nickel forwards	4,983	3,877	S	8,543	(0.3)	3.0			(0.7)
Copper forwards	3,937	5,939	S	4,653	(0.4)	2.0			0.3
<b>Total</b>					<b>(0.7)</b>	<b>5.0</b>		<b>1.8</b>	<b>(0.3)</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	Value at Risk June 30, 2016	Fair value by year			
	June 30, 2016	December 31, 2015			June 30, 2016	December 31, 2015	Inflows (Outflows) June 30, 2016		2016	2017	2018+	
Call options	746,667	746,667	S	179	(1.3)			0.8	(0.0)	(0.0)	(1.3)	



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 June 30, 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	(540)	(1.158)	(1.776)
	US\$ interest rate inside Brazil decrease	(540)	(551)	(563)
	Brazilian interest rate increase	(540)	(543)	(545)
	Protected item: R\$ denominated debt	n.a.		
<b>TJLP vs. US\$ fixed rate swap</b>	R\$ depreciation	(669)	(1.214)	(1.758)
	US\$ interest rate inside Brazil decrease	(669)	(703)	(740)
	Brazilian interest rate increase	(669)	(741)	(805)
	TJLP interest rate decrease	(669)	(717)	(766)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
<b>TJLP vs. US\$ floating rate swap</b>	R\$ depreciation	(51)	(84)	(118)
	US\$ interest rate inside Brazil decrease	(51)	(54)	(57)
	Brazilian interest rate increase	(51)	(56)	(60)
	TJLP interest rate decrease	(51)	(54)	(58)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
<b>R\$ fixed rate vs. US\$ fixed rate swap</b>	R\$ depreciation	(31)	(130)	(229)
	US\$ interest rate inside Brazil decrease	(31)	(45)	(61)
	Brazilian interest rate increase	(31)	(63)	(90)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
<b>IPCA vs. US\$ fixed rate swap</b>	R\$ depreciation	(56)	(171)	(287)
	US\$ interest rate inside Brazil decrease	(56)	(64)	(74)
	Brazilian interest rate increase	(56)	(88)	(116)
	IPCA index decrease	(56)	(72)	(87)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		

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<b>IPCA vs. CDI swap</b>	Brazilian interest rate increase	16	(34)	(77)
	IPCA index decrease	16	(9)	(33)
Protected item: R\$ denominated debt linked to IPCA	IPCA index decrease	n.a.	9	33
<b>EUR fixed rate vs. US\$ fixed rate swap</b>	EUR depreciation	(39)	(213)	(388)
	Euribor increase	(39)	(43)	(48)
	US\$ Libor decrease	(39)	(51)	(63)
Protected item: EUR denominated debt	EUR depreciation	n.a.	213	388
<b>EUR Forward</b>	EUR depreciation	(12)	(151)	(290)
	Euribor increase	(12)	(13)	(13)
	US\$ Libor decrease	(12)	(13)	(14)
Protected item: EUR denominated debt	EUR depreciation	n.a.	151	(290)

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	(235)	(340)	(453)
Protected item: Part of costs linked to bunker oil prices	Bunker Oil price decrease	n.a.	340	453
<b>Nickel sales fixed price protection</b>				
Forwards	Nickel price decrease	(13)	(48)	(82)
Protected item: Part of nickel revenues with fixed prices	Nickel price fluctuation	n.a.	48	82
<b>Purchase protection program</b>				
Nickel forwards	Nickel price increase	(0,1)	(0,5)	(0,9)
Protected item: Part of costs linked to nickel prices	Nickel price increase	n.a.	0,5	0,9
Copper forwards	Copper price increase	(0,0)	(0,7)	(1,5)
Protected item: Part of costs linked to copper prices	Copper price increase	n.a.	0,7	1,5
<b>SLW warrants</b>	SLW stock price decrease	36	5	(21)
<b>VLI call options</b>	VLI stock value increase	(43)	(69)	(95)
<b>Options regarding non-controlling interest in subsidiary</b>	Subsidiary stock value decrease	125	48	(10)

Instrument	Main risks	Scenario I	Scenario II	Scenario III
Embedded derivatives - Raw material purchase (nickel)	Nickel price increase	(0,3)	(11,4)	(22,5)
Embedded derivatives - Raw material purchase (copper)	Copper price increase	(0,4)	(5,0)	(9,5)
Embedded derivatives - Gas purchase	Pellet price increase	(1,3)	(2,6)	(4,6)

**h) Financial counterparties ratings**

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

The table below presents the ratings in foreign currency published by agencies Moody's and S&P regarding the main financial institutions that we had outstanding positions as of June 30, 2016.

<b>Long term ratings by counterparty</b>	<b>Moody s</b>	<b>S&amp;P</b>
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	A3	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 Contents**i) Market curves**

The curves used on the pricing of derivatives instruments were developed based on data from BM&F Bovespa, 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	9,415	DEC16	9,488	JUN17	9,556
JUL16	9,416	JAN17	9,502	JUN18	9,671
AUG16	9,433	FEB17	9,515	JUN19	9,773
SEP16	9,447	MAR17	9,527	JUN20	9,860
OCT16	9,462	APR17	9,536		
NOV16	9,476	MAY17	9,547		

**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	2.20	DEC16	2.20	JUN17	2.20
JUL16	2.20	JAN17	2.20	JUN18	2.22
AUG16	2.20	FEB17	2.20	JUN19	2.22
SEP16	2.20	MAR17	2.20	JUN20	2.24
OCT16	2.20	APR17	2.20		
NOV16	2.20	MAY17	2.20		

**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	257	DEC16	253	JUN17	263

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JUL16	254	JAN17	255	JUN18	281
AUG16	250	FEB17	257	JUN19	295
SEP16	250	MAR17	259	JUN20	310
OCT16	250	APR17	260		
NOV16	252	MAY17	262		

(ii) Foreign exchange and interest rates

US\$-Brazil Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
08/01/16	3.54	06/01/17	2.80	10/01/19	3.52
09/01/16	3.12	07/03/17	2.80	01/02/20	3.67
10/03/16	2.90	10/02/17	2.89	04/01/20	3.72
11/01/16	2.80	01/02/18	2.96	07/01/20	3.86
12/01/16	2.72	04/02/18	3.03	10/01/20	4.03
01/02/17	2.69	07/02/18	3.10	01/04/21	4.14
02/01/17	2.69	10/01/18	3.21	04/01/21	4.25
03/01/17	2.71	01/02/19	3.28	07/01/21	4.35
04/03/17	2.73	04/01/19	3.39	01/03/22	4.63
05/02/17	2.77	07/01/19	3.46	01/02/23	5.09

US\$ Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
1M	0.47	6M	0.67	11M	0.68
2M	0.55	7M	0.67	12M	0.68
3M	0.65	8M	0.67	2Y	0.74
4M	0.66	9M	0.68	3Y	0.81
5M	0.67	10M	0.68	4Y	0.90

TJLP

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

Table of Contents**BRL Interest Rate**

<b>Maturity</b>	<b>Rate (% p.a.)</b>	<b>Maturity</b>	<b>Rate (% p.a.)</b>	<b>Maturity</b>	<b>Rate (% p.a.)</b>
08/01/16	14.11	06/01/17	13.43	10/01/19	12.30
09/01/16	14.11	07/03/17	13.34	01/02/20	12.24
10/03/16	14.10	10/02/17	13.11	04/01/20	12.22
11/01/16	14.06	01/02/18	12.88	07/01/20	12.21
12/01/16	14.03	04/02/18	12.74	10/01/20	12.20
01/02/17	13.92	07/02/18	12.61	01/04/21	12.15
02/01/17	13.80	10/01/18	12.53	04/01/21	12.16
03/01/17	13.72	01/02/19	12.41	07/01/21	12.16
04/03/17	13.64	04/01/19	12.35	01/03/22	12.17
05/02/17	13.55	07/01/19	12.33	01/02/23	12.24

**Implicit Inflation (IPCA)**

<b>Maturity</b>	<b>Rate (% p.a.)</b>	<b>Maturity</b>	<b>Rate (% p.a.)</b>	<b>Maturity</b>	<b>Rate (% p.a.)</b>
08/01/16	6.93	06/01/17	6.29	10/01/19	5.48
09/01/16	6.93	07/03/17	6.21	01/02/20	5.43
10/03/16	6.93	10/02/17	6.12	04/01/20	5.42
11/01/16	6.88	01/02/18	5.98	07/01/20	5.42
12/01/16	6.86	04/02/18	5.87	10/01/20	5.43
01/02/17	6.76	07/02/18	5.76	01/04/21	5.39
02/01/17	6.64	10/01/18	5.68	04/01/21	5.41
03/01/17	6.56	01/02/19	5.57	07/01/21	5.43
04/03/17	6.49	04/01/19	5.51	01/03/22	5.47
05/02/17	6.41	07/01/19	5.50	01/02/23	5.60

**EUR Interest Rate**

<b>Maturity</b>	<b>Rate (% p.a.)</b>	<b>Maturity</b>	<b>Rate (% p.a.)</b>	<b>Maturity</b>	<b>Rate (% p.a.)</b>
1M	-0.36	6M	-0.23	11M	-0.20
2M	-0.32	7M	-0.22	12M	-0.20
3M	-0.29	8M	-0.21	2Y	-0.07
4M	-0.26	9M	-0.21	3Y	-0.03
5M	-0.24	10M	-0.20	4Y	-0.01

**CAD Interest Rate**

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Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
1M	0.88	6M	1.01	11M	0.88
2M	0.88	7M	0.97	12M	0.87
3M	0.88	8M	0.94	2Y	0.86
4M	0.94	9M	0.92	3Y	0.88
5M	0.98	10M	0.90	4Y	0.90

Currencies - Ending rates

CAD/US\$	0.7682	US\$/BRL	3.2098	EUR/US\$	1.1103
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Table of Contents**20. Stockholders equity****a) Share capital**

At June 30, 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	June 30, 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	789,507,484	657,055,684	1,446,563,168
FMP - FGTS	76,647,018		76,647,018
PIBB - BNDES	1,185,752	1,028,029	2,213,781
BNDESPar	206,378,882	66,185,272	272,564,154
Foreign institutional investors in local market	268,445,614	730,516,782	998,962,396
Institutional investors	85,718,256	120,989,909	206,708,165
Retail investors in Brazil	41,334,949	371,606,238	412,941,187
<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>3,600,000,000</b>	<b>7,200,000,000</b>	<b>10,800,000,000</b>

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

Basic and diluted earnings per share are as follows:

	Three-months period ended June 30		Six-months period ended June 30	
	2016	2015	2016	2015
<b>Net income (loss) attributable to Vale's stockholders</b>	<b>1,106</b>	<b>1,675</b>	<b>2,882</b>	<b>(1,443)</b>

<b>Basic and diluted earnings per share:</b>				
Income (loss) available to preferred stockholders	422	640	1,100	(551)
Income (loss) available to common stockholders	684	1,035	1,782	(892)
<b>Total</b>	<b>1,106</b>	<b>1,675</b>	<b>2,882</b>	<b>(1,443)</b>

<b>Thousands of shares</b>				
Weighted average number of shares outstanding - preferred shares	1,967,722	1,967,722	1,967,722	1,967,722
Weighted average number of shares outstanding - common shares	3,185,653	3,185,653	3,185,653	3,185,653
<b>Total</b>	<b>5,153,375</b>	<b>5,153,375</b>	<b>5,153,375</b>	<b>5,153,375</b>

<b>Basic and diluted earnings per share</b>				
Preferred share	0.21	0.33	0.56	(0.28)
Common share	0.21	0.33	0.56	(0.28)

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

	Three-months period ended June 30		Six-months period ended June 30	
	2016	2015	2016	2015
Personnel	595	631	1,100	1,173
Materials and services	1,150	987	1,938	1,974
Fuel oil and gas	317	352	624	659
Maintenance	655	689	1,276	1,343
Energy	191	172	353	313
Acquisition of products	146	251	229	505
Depreciation and depletion	866	882	1,676	1,793
Freight	611	855	1,111	1,626
Others	264	367	737	968
<b>Total</b>	<b>4,795</b>	<b>5,186</b>	<b>9,044</b>	<b>10,354</b>
Cost of goods sold	4,680	5,047	8,822	10,069
Cost of services rendered	115	139	222	285
<b>Total</b>	<b>4,795</b>	<b>5,186</b>	<b>9,044</b>	<b>10,354</b>

**b) Selling and administrative expenses**

	Three-months period ended June 30		Six-months period ended June 30	
	2016	2015	2016	2015
Personnel	58	74	109	156
Services (consulting, infrastructure and others)	18	26	34	54
Advertising and publicity	2	3	3	6
Depreciation and amortization	33	34	56	64
Travel expenses	2	3	3	6
Taxes and rents	3	4	7	10
Others	24	15	47	58
<b>Total</b>	<b>140</b>	<b>159</b>	<b>259</b>	<b>354</b>

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

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	Three-months period ended June 30		Six-months period ended June 30	
	2016	2015	2016	2015
Provision for litigation	63	41	94	24
Provision for loss with VAT credits (ICMS)	5	61	35	102
Provision (reversals) for disposal of materials and inventories	(6)	31	(77)	94
Gold stream transaction				(230)
Insurance and externalities	33	7	53	20
Result on sale or disposal of property, plant and equipment and intangible	30	(15)	39	
Others	35	78	51	147
<b>Total</b>	<b>160</b>	<b>203</b>	<b>195</b>	<b>157</b>

Table of Contents**22. Financial result**

	Three-months period ended June 30		Six-months period ended June 30	
	2016	2015	2016	2015
<b>Financial expenses</b>				
Loans and borrowings gross interest	(452)	(405)	(864)	(796)
Capitalized loans and borrowing costs	213	177	390	373
Labor, tax and civil lawsuits		(17)	(21)	(50)
Derivative financial instruments	(166)	(87)	(224)	(1,427)
Indexation and exchange rate variation (a)	(1,055)	(637)	(2,225)	(5,938)
Participative stockholders debentures	(86)	361	(202)	636
Expenses of REFIS	(129)	(144)	(244)	(288)
Others	(157)	(187)	(300)	(307)
	<b>(1,832)</b>	<b>(939)</b>	<b>(3,690)</b>	<b>(7,797)</b>
<b>Financial income</b>				
Short-term investments	27	21	69	47
Derivative financial instruments	925	322	1,423	322
Indexation and exchange rate variation (b)	2,964	1,119	5,689	3,401
Others	7	9	25	49
	<b>3,923</b>	<b>1,471</b>	<b>7,206</b>	<b>3,819</b>
<b>Financial results, net</b>	<b>2,091</b>	<b>532</b>	<b>3,516</b>	<b>(3,978)</b>
<b>Summary of indexation and exchange rate variation</b>				
Loans and borrowings	2,781	897	3,571	(4,117)
Others	(872)	(415)	(107)	1,580
<b>Net (a) + (b)</b>	<b>1,909</b>	<b>482</b>	<b>3,464</b>	<b>(2,537)</b>

**23. Commitments****a) Base metals operations**

In December 2015, the put option related to the dilution of Sumic Nickel Netherland B.V. ( Sumic ) interest in Vale Nouvelle-Calédonie S.A.S. ( VNC ) was automatically triggered.

In March 2016, Vale Canada Limited purchased the equity interest held by Sumic in VNC for US\$135.

**b) Operating lease and purchase obligations**

The future payment commitments for operating lease and purchase obligations are as follows:

2016	46
2017	53
2018	56
2019	48
2020 and thereafter	50
<b>Total minimum payments required</b>	<b>253</b>

**c) Guarantees provided**

As of June 30, 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\$350 and US\$1,317, respectively.

Table of Contents**24. 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 (associates, joint ventures and stockholders), related to the sale and purchase of products and services, loans, derivatives, 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:

	June 30, 2016				December 31, 2015			
	Cash and cash equivalents	Derivative financial instruments	Accounts receivable	Related parties	Cash and cash equivalents	Derivative financial instruments	Accounts receivable	Related parties
Banco Bradesco S.A.	49	334			37	66		
Banco do Brasil S.A.	162	39			395	16		
Companhia Coreano-Brasileira de Pelotização				14				6
Companhia Hispano-Brasileira de Pelotização			2				1	4
Companhia Ítalo-Brasileira de Pelotização								8
Companhia Nipo-Brasileira de Pelotização				22				9
Companhia Siderúrgica do Pecem			25					
Consórcio de Rebocadores da Baía de São Marcos			12				15	
Ferrovias Norte Sul S.A.			8				3	
Mitsui & Co., Ltd.			3				1	
MRS Logística S.A.				19				17
VLI Multimodal S.A.			5				9	
VLI Operações Portuárias S.A.			13				25	
VLI S.A.				12				10

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Others			18	4			24	17
<b>Total</b>	<b>211</b>	<b>373</b>	<b>86</b>	<b>71</b>	<b>432</b>	<b>82</b>	<b>78</b>	<b>71</b>

	Liabilities							
	June 30, 2016				December 31, 2015			
	Derivative financial instruments	Others liabilities	Related parties	Loans and borrowings	Derivative financial instruments	Others liabilities	Related parties	Loans and borrowings
Aliança Geração de Energia S.A.		12	54			11		
Banco Bradesco S.A.	342	132		175	205	54		370
Banco do Brasil S.A.	207			2.952	250			2.625
Banco Nacional de Desenvolvimento Econômico e Social	43			4.658	39			4.066
Baovale Mineração S.A.		18				8		
BNDES Participações S.A.				436				371
Companhia Coreano-Brasileira de Pelotização		67	34			4	70	
Companhia Hispano-Brasileira de Pelotização		23	21			37	7	
Companhia Ítalo-Brasileira de Pelotização		22	50			3	64	
Companhia Nipo-Brasileira de Pelotização		65	65			9	112	
Consórcio de Rebocadores da Baía de São Marcos						8		
Ferrovias Centro-Atlântica S.A.			83				68	
Mitsui & Co., Ltd.		13				11		
MRS Logística S.A.		11				23		
Sumic Nickel Netherland B.V.			362					352
VLI S.A.		1	68					
Others		2	7			22	15	
<b>Total</b>	<b>592</b>	<b>366</b>	<b>744</b>	<b>8.221</b>	<b>494</b>	<b>190</b>	<b>688</b>	<b>7.432</b>



Table of Contents

	Three-months period ended June 30					
	Net operating revenue	2016 Costs and expenses	Financial result	Net operating revenue	2015 Costs and expenses	Financial result
Banco Bradesco S.A. (i)			152			10
Banco do Brasil S.A. (i)			(46)			12
Baovale Mineração S.A.		(5)			(15)	
BNDES (i)			(105)			(19)
BNDES Participações S.A. (i)			(14)			(1)
Companhia Coreano-Brasileira de Pelotização		(18)			(19)	
Companhia Hispano-Brasileira de Pelotização		(9)			(9)	
Companhia Ítalo-Brasileira de Pelotização		(12)			(14)	
Companhia Nipo-Brasileira de Pelotização		(20)			(25)	
Companhia Siderúrgica do Atlântico		(6)				
Companhia Siderúrgica do Pecem	15					
Ferrovias Centro Atlântica S.A.	11	(7)		12	(9)	
Ferrovias Norte Sul S.A.	6					
Mitsui & Co., Ltd.	42			50		
MRS Logística S.A.		(139)			(141)	
Samarco Mineração S.A.				58		
VLI Operações Portuárias S.A.	39	(3)				
VLI S.A.	32			68		
Others	1	(8)		12	(12)	(2)
<b>Total</b>	<b>146</b>	<b>(227)</b>	<b>(13)</b>	<b>200</b>	<b>(244)</b>	

	Six-months period ended June 30					
	Net operating revenue	2016 Costs and expenses	Financial result	Net operating revenue	2015 Costs and expenses	Financial result
Banco Bradesco S.A. (i)			134			(74)
Banco do Brasil S.A. (i)			(82)			(123)
Baovale Mineração S.A.		(8)			(20)	
BNDES (i)			(151)			(36)
BNDES Participações S.A. (i)			(20)			(11)
Companhia Coreano-Brasileira de Pelotização		(35)			(34)	
Companhia Hispano-Brasileira de Pelotização		(19)			(21)	
Companhia Ítalo-Brasileira de Pelotização		(22)			(28)	
Companhia Nipo-Brasileira de Pelotização		(52)			(50)	
Companhia Siderúrgica do Atlântico		(6)				
Companhia Siderúrgica do Pecem	32					

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Ferrovias Centro Atlântica S.A.	19	(12)		24	(21)	
Ferrovias Norte Sul S.A.	11					
Mitsui & Co., Ltd.	62			109		
MRS Logística S.A.		(202)			(260)	
Samarco Mineração S.A.				89		
VLI Operações Portuárias S.A.	68	(3)				
VLI S.A.	59			130		
Others	10	(18)		33	(24)	1
<b>Total</b>	<b>261</b>	<b>(377)</b>	<b>(119)</b>	<b>385</b>	<b>(458)</b>	<b>(243)</b>

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(i) Does 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

Fernando Jorge Buso Gomes

Motomu Takahashi

Oscar Augusto de Camargo Filho

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

Marcelo Gasparino

**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

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

Marcelo Amaral Moraes

**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**

Vania 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

**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)**

Rogério Nogueira

**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.

Date: July 28, 2016

By:

Vale S.A.  
(Registrant)

/s/ Andre Figueiredo  
Andre Figueiredo  
Director of Investor Relations

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