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.

(Check One) Form 20-F x Form 40-F o
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1)
(Check One) Yes o No x
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7)
(Check One) Yes o No x
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 o No x
If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule $12g3-2(b)$ . 82-

	Edgar Filing: Vale S.A Form 6-k
Table of Contents	

**Interim Financial Statements** 

June 30, 2016

BRGAAP in R\$ (English)

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

#### **Contents**

T. 1		Page
Independent auditor s report		3
	Parent Company Income Statement Parent Company Statement of Comprehensive Income	5 6
	Parent Company Statement of Comprehensive income Parent Company Cash Flow Statement	7
		9
	Parent Company Balance Sheet	
Condensed Statement of Char	Parent Company Value Added Statement	10 11
Selected Notes to the Interim		12
	Corporate information	12
<u>1.</u>	Basis for preparation of the interim financial statements	12
<u>∠.</u> 2	Information by business segment	13
<u>3.</u> 4	Relevant Event	18
<u>4.</u> 5	Assets held for sale	20
<u>5.</u> 6		20
<u>0.</u> 7	Acquisitions and divestitures	20 21
<u>/.</u>	Cash and cash equivalents	21
<u>o.</u>	Accounts receivable	21
<u>9.</u>	Inventories	22
10. 11	Investments in associates and joint ventures	23
11. 12	Intangibles Property plant and equipment	
<u>12.</u>	Property, plant and equipment	24
<u>13.</u>	Loans and borrowings	25
<u>14.</u>	Litigation	27
<u>15.</u>	Income taxes	29
<u>16.</u>	Employee postretirement obligations	30
17.	Financial instruments classification	30
<u>18.</u>	Fair value estimate	31
<u>19.</u>	Derivative financial instruments	31
<u>20.</u>	Stockholders equity	41
<u>21.</u>	Costs and expenses by nature	42
<u>22.</u>	Financial results	43
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25.	Commitments	43
<u>24.</u>	Related parties	44
	Parent Company information (individual interim information)	46
Members of the Board of Dire	ectors, Fiscal Council, Advisory Committees and Executive Officers	50

<b>m</b>	. 1		c			
Tal	hl	e	ot	on	itei	nts

**KPMG Auditores Independentes** 

Central Tel Fax Internet 55 (21) 3515-9400 55 (21) 3515-9000

Av. Almirante Barroso, 52 - 4°

www.kpmg.com.br

20031-000 - Rio de Janeiro, RJ - Brasil

Caixa Postal 2888

20001-970 - Rio de Janeiro, RJ - Brasil

#### Report on the review of quarterly information - ITR

(A free translation of the original report in Portuguese, as filed with the Brazilian Securities and Exchange Commission (CVM), prepared in accordance with the accounting practices adopted in Brazil, rules of the CVM and of the International Financial Reporting Standards - IFRS)

То

The Board of Directors and Stockholders of

Vale S.A.

Rio de Janeiro - RJ

#### Introduction

1. We have reviewed the interim accounting information of Vale S.A. (the Company), included in the quarterly information form - ITR for the quarter ended June 30, 2016, which comprises the individual and consolidated balance sheets as of June 30, 2016 and the respective individual and consolidated statements of income and comprehensive income for the three and six months periods ended on June 30, 2016, the individual and consolidated statements of

changes in stockholders equity for the six-month period then ended and the individual statement of cash flows for the six-month period and the consolidated statement of cash flows for the three and six months periods then ended, including the explanatory notes.

2. The Company's Management is responsible for the preparation of these interim accounting information in accordance with the Accounting Pronouncement CPC 21(R1) *Demonstração Intermediária* and the international accounting rule IAS 34 - Interim Financial Reporting, issued by the *International Accounting Standards Board* IASB, as well as the presentation of these information in accordance with the standards issued by the Brazilian Securities and Exchange Commission (CVM), applicable to the preparation of quarterly information - ITR. Our responsibility is to express our conclusion on this interim accounting information based on our review.

#### Scope of the review

3. We conducted our review in accordance with Brazilian and International Interim Information Review Standards (*NBC TR 2410 - Revisão de Informações Intermediárias Executada pelo Auditor da Entidade* and ISRE 2410 - Review of Interim Financial Information Performed by the Independent Auditor of the Entity). A review of interim information consists of making inquiries primarily of the management responsible for financial and accounting matters and applying analytical procedures and other review procedures. The scope of a review is significantly less than an audit conducted in accordance with auditing standards and, accordingly, it did not enable us to obtain assurance that we were aware of all the material matters that would have been identified in an audit. Therefore, we do not express an audit opinion.

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
Conclusion on the interim accounting information
4. Based on our review, we are not aware of any fact that might lead us to believe that the individual and consolidated interim accounting information included in the aforementioned quarterly information was not prepared, in all material respects, in accordance with CPC 21(R1) and IAS 34, applicable to the preparation of the quarterly review - ITR, and presented in accordance with the standards issued by the Brazilian Securities and Exchange Commission.
Other matters
Statements of added value
5. We have also reviewed the individual and consolidated statements of added value for the six-month period ended June 30, 2016, prepared under the responsibility of the Company's Management, for which presentation is required in the interim information in accordance with the standards issued by the CVM applicable to the preparation of quarterly information - ITR, and considered as supplementary information by IFRS, which does not require the presentation of the statements of added value. These statements were submitted to the same review procedures described previously and, based on our review, we are not aware of any fact that might lead us to believe that they were not prepared, in all material respects, in accordance with the individual and consolidated interim accounting information, taken as a whole.
Rio de Janeiro, July 26, 2016
KPMG Auditores Independentes
CRC SP-014428/O-6 F-RJ
(Original report in Portuguese signed by)
Manuel Fernandes Rodrigues de Sousa

4

#### **Condensed Income Statement**

#### In millions of Brazilian Reais, except as otherwise stated

		Consolidated			
		Three-months period	ended June 30	Six-months period e	ended June 30
	Notes	2016	2015	2016	2015
Net operating revenue	3(c)	23,203	21,441	45,270	39,468
Cost of goods sold and services rendered	21(a)	(16,791)	(15,968)	(33,258)	(30,956)
Gross profit		6,412	5,473	12,012	8,512
Operating (expenses) income					
Selling and administrative expenses	21(b)	(493)	(488)	(958)	(1,043)
Research and evaluation expenses	(-)	(276)	(365)	(508)	(710)
Pre operating and operational stoppage		(402)	(797)	(802)	(1,555)
Other operating income (expenses), net	21(c)	(566)	(622)	(700)	(442)
	==(=)	(1,737)	(2,272)	(2,968)	(3,750)
Results on measurement or sale of		(-,)	(=,= : =)	(=)	(= ,: = =)
non-current assets	5 and 6	(228)	(172)	(228)	374
Operating income		4,447	3,029	8,816	5,136
Financial income	22	13,417	4,486	25,170	11,437
	22			· · · · · · · · · · · · · · · · · · ·	
Financial expenses	22	(6,344)	(2,862)	(13,324)	(23,491)
Equity results in associates and joint	10	(50	((0	1 247	(157)
ventures	10	658	668	1,247	(157)
Others results in associates and joint	4 and 6	(3,999)	241	(2,000)	296
Ventures  Net income (loss) before income taxes	4 and 6	* * * *	5,562	(3,999)	
Net income (loss) before income taxes		8,179	5,502	17,910	(6,779)
Income taxes	15				
Current tax		(1,415)	(208)	(2,707)	(409)
Deferred tax		(3,125)	(353)	(5,236)	2,497
		(4,540)	(561)	(7,943)	2,088
Net income (loss)		3,639	5,001	9,967	(4,691)
Income (loss) attributable to noncontrolling					
interests		54	(143)	71	(296)
Net income (loss) attributable to Vale s					
stockholders		3,585	5,144	9,896	(4,395)
Earnings per share attributable to Vale s					
stockholders:					
Basic and diluted earnings per share:	20(b)				
Preferred share (R\$)		0.70	1.00	1.92	(0.85)
Common share (R\$)		0.70	1.00	1.92	(0.85)

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

		Parent con	mpany	
	Three-months period		Six-months period e	
	2016	2015	2016	2015
Net operating revenue	12,210	9,367	20,374	19,602
Cost of goods sold and services rendered	(7,085)	(6,767)	(14,047)	(13,191)
Gross profit	5,125	2,600	6,327	6,411
Operating (expenses) income	(240)	(200)	(400)	(570)
Selling and administrative expenses	(249)	(286)	(489)	(579)
Research and evaluation expenses	(136)	(185)	(255)	(352)
Pre operating and operational stoppage	(175)	(111)	(339)	(224)
Equity results from subsidiaries	506	2,174	3,405	(1,600)
Other operating income (expenses), net	(91)	(389)	(518)	(349)
	(145)	1,203	1,804	(3,104)
Results on measurement or sale of non-current assets				546
Operating income	4,980	3,803	8,131	3,853
Financial income	12,348	3,539	23.710	10,462
Financial expenses	(5,938)	(2,310)	(12,658)	(21,340)
Equity results in associates and joint ventures	658	668	1,247	(157)
Others results in associates and joint ventures	(3,999)		(3,999)	55
Net income (loss) before income taxes	8,049	5,700	16,431	(7,127)
Income taxes				
Current tax	(1,281)		(2,298)	
Deferred tax	(3,183)	(556)	(4,237)	2,732
	(4,464)	(556)	(6,535)	2,732
Net income (loss)	3,585	5,144	9,896	(4,395)

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

See independent auditor s report on the financial statements.

#### **Condensed Statement of Comprehensive Income**

#### In millions of Brazilian Reais

		Consolid	lated	
	Three-months period		Six-months period e	
	2016	2015	2016	2015
Net income (loss)	3,639	5,001	9,967	(4,691)
Other comprehensive income (loss):				
Items that will not be reclassified subsequently to				
the income statement				
Retirement benefit obligations				
Gross balance for the period	(641)	295	(972)	(23)
Effect of taxes	193	(83)	297	74
	(448)	212	(675)	51
Total items that will not be reclassified subsequently				
to the income statement	(448)	212	(675)	51
Items that may be reclassified subsequently to the				
income statement				
Cumulative translation adjustments				
Gross balance for the period	(7,793)	(2,825)	(14,222)	12,113
Effect of taxes	27		(522)	
Transfer of realized results to net income, net of taxes	(266)		(266)	
	(8,032)	(2,825)	(15,010)	12,113
Cash flow hedge				
Gross balance for the period	2	834	23	1,558
Effect of taxes		(10)	(3)	(10)
Equity results in associates and joint ventures	16	(1)	16	(8)
Transfer of realized results to net income, net of taxes		(271)	(10)	(688)
	18	552	26	852
Total of items that may be reclassified subsequently				
to the income statement	(8,014)	(2,273)	(14,984)	12,965
Total comprehensive income (loss)	(4,823)	2,940	(5,692)	8,325
Comprehensive income (loss) attributable to				
noncontrolling interests	(434)	(258)	(901)	218
Comprehensive income (loss) attributable to Vale s				
stockholders	(4,389)	3,198	(4,791)	8,107

	Parent company			
	Three-months period	l ended June 30	Six-months period ended June 30	
	2016	2015	2016	2015
Net income (loss)	3,585	5,144	9,896	(4,395)
Other comprehensive income (loss):				

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

Items that will not be reclassified subsequently to the income statement				
Retirement benefit obligations				
Gross balance for the period	(19)	(40)	(40)	(50)
Effect of taxes	6	14	13	17
Equity results in associates and joint ventures	(435)	238	(648)	84
	(448)	212	(675)	51
Total items that will not be reclassified subsequently				
to the income statement	(448)	212	(675)	51
Items that may be reclassified subsequently to the				
income statement				
Cumulative translation adjustments				
Gross balance for the period	(7,278)	(2,710)	(13,772)	11,599
Transfer of realized results to net income, net of taxes	(266)		(266)	
	(7,544)	(2,710)	(14,038)	11,599
Cash flow hedge				
Equity results in associates and joint ventures	18	552	26	852
	18	552	26	852
Total of items that may be reclassified subsequently				
to the income statement	(7,526)	(2,158)	(14,012)	12,451
Total comprehensive income (loss)	(4,389)	3,198	(4,791)	8,107

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

See independent auditor s report on the financial statements.

#### **Condensed Cash Flow Statement**

#### In millions of Brazilian Reais

	Consolidated			
	Three-months period	ended June 30	Six-months period	
	2016	2015	2016	2015
Cash flow from operating activities:				
Net income (loss) before income taxes	8,179	5,562	17,910	(6,779)
Adjustments for:				
Equity results from associates and joint ventures	(658)	(668)	(1,247)	157
Results on measurement or sale of non-current assets	228	172	228	(374)
Others results in associates and joint ventures	3,999	(241)	3,999	(296)
Results on disposal of property, plant and equipment				
and intangibles	105	(48)	144	(731)
Depreciation, amortization and depletion	3,253	3,039	6,567	6,039
Financial results, net	(7,073)	(1,624)	(11,846)	12,054
Changes in assets and liabilities:				
Accounts receivable	372	(1,553)	(3,524)	688
Inventories	269	(272)	(131)	481
Suppliers and contractors	1,249	772	(181)	(378)
Payroll and related charges	153	(46)	142	(1,627)
Other taxes assets and liabilities, net	(14)	(677)	(197)	(602)
Deferred revenue - Gold stream				1,670
Other assets and liabilities, net	557	360	1,496	421
Cash provided from operations	10,619	4,776	13,360	10,723
Interest on loans and borrowings paid	(1,276)	(994)	(3,137)	(2,315)
Derivatives received (paid), net (note 19)	(1,236)	(303)	(3,212)	(2,088)
Interest on participative stockholders debentures paid	(117)		(117)	(124)
Income taxes	(244)	(144)	(875)	(903)
Income taxes - Settlement program	(351)	(317)	(694)	(625)
Net cash provided by operating activities	7,395	3,018	5,325	4,668
Cash flow from investing activities:	(20.4)	225		
Financial investments redeemed (invested)	(384)	335	(6)	737
Loans and advances granted	(2)	(27)	(15)	(33)
Guarantees and deposits granted	(46)	(67)	(184)	(137)
Additions to investments	(476)	(88)	(838)	(118)
Acquisition of subsidiary, net of cash acquired			17	(237)
Additions to property, plant and equipment and				
intangible (note 3(b))	(4,324)	(6,514)	(9,678)	(12,773)
Dividends and interest on capital received from				
associates and joint ventures	413	577	415	651
Proceeds from disposal of assets and investments	40	1,410	87	1,749
Proceeds from gold stream transaction				1,156
Net cash used in investing activities	(4,779)	(4,374)	(10,202)	(9,005)

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

5,005	4,748	17,955	8,424
(6,215)	(1,824)	(10,950)	(2,643)
	(3,101)		(3,101)
(252)	(28)	(269)	(35)
	(125)	(69)	(125)
(1,462)	(330)	6,667	2,520
1,154	(1,686)	1,790	(1,817)
13,461	11,818	14,022	10,555
(1,238)	(333)	(2,435)	1,061
13,377	9,799	13,377	9,799
769	544	1,439	1,100
	(6,215) (252) (1,462) 1,154 13,461 (1,238) 13,377	(6,215) (1,824)  (3,101)  (252) (28) (125) (1,462) (330)  1,154 (1,686)  13,461 11,818  (1,238) (333) 13,377 9,799	(6,215)     (1,824)     (10,950)       (3,101)       (252)     (28)     (269)       (1,25)     (69)       (1,462)     (330)     6,667       1,154     (1,686)     1,790       13,461     11,818     14,022       (1,238)     (333)     (2,435)       13,377     9,799     13,377

<sup>(</sup>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 independent auditor s report on the financial statements.

#### **Condensed Cash Flow Statement**

#### In millions of Brazilian Reais

	Parent compa Six-months period end 2016	
Cash flow from operating activities:		
Net income (loss) before income taxes	16,431	(7,127)
Adjustments for:		
Equity results from entities	(4,652)	1,757
Results on measurement or sale of non-current assets		(546)
Others results in associates and joint ventures	3,999	(55)
Results on disposal of property, plant and equipment and intangibles	96	135
Depreciation, amortization and depletion	2,398	2,122
Financial results, net	(11,052)	10,878
Changes in assets and liabilities:		
Accounts receivable	2,896	5,365
Inventories	19	43
Suppliers and contractors	925	606
Payroll and related charges	106	(1,131)
Other taxes assets and liabilities, net	8	(414)
Other assets and liabilities, net	338	159
Cash provided from operations	11,512	11,792
Dividends and interest on capital received from subsidiaries	59	670
Interest on loans with related parties received (paid), net	(1,176)	(1,253)
Interest on loans and borrowings paid	(1,671)	(1,034)
Derivatives received (paid), net (note 19)	(672)	(601)
Interest on participative stockholders debentures paid	(117)	(124)
Income taxes	(81)	
Income taxes - Settlement program	(681)	(612)
Net cash provided by operating activities	7,173	8,838
Cash flow from investing activities:		
Financial investments redeemed	6	374
Loans and advances received	85	127
Guarantees and deposits granted	(188)	(122)
Additions to investments	(1,282)	(994)
Additions to property, plant and equipment and intangible	(6,276)	(8,045)
Dividends and interest on capital received from associates and joint ventures	403	649
Proceeds from disposal of assets and investments	13	316
Net cash used in investing activities	(7,239)	(7,695)
Cash flow from financing activities:		
Loans and borrowings (i)		
Additions	6,315	7,496

Repayments	(6,750)	(2,331)
Transactions with related parties	447	(2,318)
Transactions with stockholders:		
Dividends and interest on capital paid to noncontrolling interest		(3,101)
Net cash provided by (used in) financing activities	12	(254)
Increase (decrease) in cash and cash equivalents	(54)	889
Cash and cash equivalents in the beginning of the period	518	685
Cash and cash equivalents at end of the period	464	1,574
Non-cash transactions:		
Additions to property, plant and equipment - capitalized loans and borrowing costs	827	551

<sup>(</sup>i) Includes transactions with related parties: Bradesco, Banco do Brasil and Banco Nacional do Desenvolvimento economico e Social - BNDES.

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

See independent auditor s report on the financial statements.

#### **Condensed Balance Sheet**

#### In millions of Brazilian Reais

		Consolidated	Parent company			
	Notes	June 30, 2016	December 31, 2015	June 30, 2016	December 31, 2015	
Assets			,		,	
Current assets						
Cash and cash equivalents	7	13,377	14,022	464	518	
Financial investments		443	109	12	18	
Derivative financial instruments	19	437	474	293	196	
Accounts receivable	8	7,871	5,763	26,256	36,026	
Inventories	9	12,409	13,775	3,991	3,830	
Recoverable income taxes		958	3,513	609	3,176	
Recoverable taxes		5,718	5,482	3,680	3,352	
Related parties	24	218	273	1,508	834	
Others		2,271	1,215	524	581	
		43,702	44,626	37,337	48,531	
Assets held for sale	5	14,952	15,792			
		58,654	60,418	37,337	48,531	
Non-current assets		,	,	,	,	
Derivative financial instruments	19	1,596	363	1,477	293	
Loans		576	732	107	106	
Recoverable income taxes		1,648	1,840			
Recoverable taxes		1,987	1,956	1,519	1,457	
Deferred income taxes	15(a)	23,396	30,867	13,068	17,292	
Judicial deposits	14(c)	3,499	3,445	2,743	2,707	
Related parties	24	10	5	841	1,468	
Others		2,154	2,392	574	765	
		34,866	41,600	20,329	24,088	
		ĺ	ĺ	ĺ	ŕ	
Investments	10	12,721	11,481	117,351	127,517	
Intangibles	11	22,190	20,789	11,016	8,557	
Property, plant and equipment	12	195,665	211,259	98,650	96,887	
		265,442	285,129	247,346	257,049	
Total assets		324,096	345,547	284,683	305,580	
Liabilities						
Current liabilities						
Suppliers and contractors		12,489	13,140	7,478	7,084	
Payroll and related charges		1,583	1,464	970	806	
Derivative financial instruments	19	3,242	8,107	2,121	3,559	
Loans and borrowings	13	10,120	9,788	4,930	4,736	
Related parties	24	1,927	1,856	9,955	6,774	
•	15(c)	1,419	1,348	1,390	1,320	
	(-)	, -	,	,	,	

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

Income taxes - Settlement					
program Tayog payabla		842	977	372	460
Taxes payable Provision for income taxes		385	943	312	400
		383	943		
Employee postretirement	16	240	266	70	70
obligations	16	248	266	79 75	72
Asset retirement obligations		261	346	75	83
Liabilities related to associates		020		020	
and joint ventures		928	2.521	928	005
Others		3,363	2,531	540	825
		36,807	40,766	28,838	25,719
Liabilities associated with assets					
held for sale	5	258	416		
nera for saic	3	37,065	41,182	28,838	25,719
Non-current liabilities		27,002	11,102	20,000	20,715
Derivative financial instruments	19	3,857	5,581	3,334	4,745
Loans and borrowings	13	91,996	102,878	47,702	55,986
Related parties	24	462	830	50,328	63,837
Employee postretirement					
obligations	16	6,900	6,831	476	483
Provisions for litigation	14(a)	2,967	3,210	1,933	2,190
Income taxes - Settlement		<b>7</b>	-, -	,	,
program	15(c)	16,089	15,953	15,759	15,626
Deferred income taxes	15(a)	5,581	6,520	- ,	- /
Asset retirement obligations	(u)	8,855	9,313	1,578	1,291
Participative stockholders		3,002	7,000	2,2 / 0	2,27
debentures		1,982	1,336	1,982	1,336
Deferred revenue - Gold stream		5,348	6,830	-,, -,-	2,223
Liabilities related to associates		2,010	2,020		
and joint ventures		2,805		2,805	
Others		7,038	5,664	3,575	3,207
		153,880	164,946	129,472	148,701
Total liabilities		190,945	206,128	158,310	174,420
Stockholders equity			, .	/	, -
Equity attributable to Vale s					
stockholders	20	126,373	131,160	126,373	131,160
Equity attributable to		,- ,- ,-	,	,	, , ,
noncontrolling interests		6,778	8,259		
Total stockholders equity		133,151	139,419	126,373	131,160
Total liabilities and			, ·	- ,-	- ,= 0
stockholders equity		324,096	345,547	284,683	305,580

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

See independent auditor  $\,$  s report on the financial statements.

#### **Condensed Statement of Changes in Equity**

#### In millions of Brazilian Reais

Balance at December 31,

77,300

50

(970) 53,085

(2,746)

(4,553)

24,248

146,414

2014

	Share capital	Results on conversion of shares	Results from operation with noncontrolling interest	Profit reserves	Treasury stocks	Unrealized fair value gain (losses)	translation	Retained earnings	Equity attributable to Vale s stockholders	Equity attributable to noncontrolling interests	Total stockholo equity
Balance at											
December 31, 2015	77,300	50	(1,881)	3,846	(2,746)	(3,873)	58,464		131,160	8,259	139.
Net income	11,500	30	(1,001)	3,040	(2,740)	(3,073)	30,404	9,896		71	9.
Other								7,070	2,020	/1	,
comprehensive											
income:											
Retirement											
benefit											
obligations						(675)			(675)	1	(
Cash flow hedge						26			26		,
Translation						20			20		
adjustments						453	(14,491)	)	(14,038)	(972	) (15,
Transactions							(2.,.,2)	<b>,</b>	(11,000)	(× , <u>-</u> ,	, (10,
with											
stockholders:											
Dividends of											
noncontrolling											
interest										(641)	) (
Acquisitions										(0.12)	`
and disposal of											
participation of											
noncontrolling											
interest			4						4		
Capitalization of											
noncontrolling											
interest											
advances										61	
Balance at											
June 30, 2016	77,300	50	(1,877)	3,846	(2,746)	(4,069)	43,973	9,896	126,373	6,778	133,
	Share		Results from operation with noncontrolling	Profit	Treasury	Unrealized fair value gain	translation	earnings	to Vale s	Equity attributable to noncontrolling	stockhol
Dalamas at	capital	of shares	interest	reserves	stocks	(losses)	adjustments	(loss)	stockholders	interests	equit

3,187

149

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

Loss			(4,395) (4,395)	(296)	(4,
Other					
comprehensive					
income:					
Retirement					
benefit					
obligations		51	51		
Cash flow hedge		852	852		
Translation					
adjustments		(434) 12,033	11,599	514	12,
Transactions					
with					
stockholders:					
Dividends of					
noncontrolling					
interest				(15)	
Acquisitions					
and disposal of					
participation of					
noncontrolling					
interest (1)	)		(13)	(114)	(
Capitalization of					
noncontrolling					
interest					
advances				46	
Dividends and					
interest on					
capital of Vale s					
stockholders	(3,101)		(3,101)		(3,
Balance at					
June 30, 2015 77,300 50 (98.	9 49,984 (2,746)	(4,084) 36,281	(4,395) 151,407	3,322	154,

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

See independent auditor s report on the financial statements.

#### **Condensed Value Added Statement**

#### In millions of Brazilian Reais

	Consolida	ited	Parent com	pany
		Six-months period of	ended June 30	
	2016	2015	2016	2015
Generation of value added from continuing				
operations				
Gross revenue	45.005	40.450	20.717	20.006
Revenue from products and services	45,907	40,172	20,715	20,096
Results on measurement or sale of non-current assets	(494)	670	(266)	601
Revenue from the construction of own assets	6,835	9,802	5,275	6,721
Allowance for doubtful accounts	(8)	4		(4)
Other revenues	289	1,817	125	302
Less:				
Acquisition of products	(837)	(1,467)	(347)	(375)
Material, service and maintenance	(16,725)	(17,661)	(9,650)	(10,889)
Oil and gas	(2,301)	(1,994)	(1,337)	(1,256)
Energy	(1,309)	(952)	(489)	(483)
Freight	(4,052)	(4,906)	(24)	
Other results in investments	(3,733)		(3,733)	
Other costs and expenses	(2,830)	(4,480)	(478)	(1,032)
Gross value added	20,742	21,005	9,791	13,681
Depreciation, amortization and depletion	(6,567)	(6,039)	(2,398)	(2,122)
Net value added	14,175	14,966	7,393	11,559
Received from third parties				
Equity results from entities	1,247	(157)	4,652	(1,757)
Financial income	354	1,199	169	642
Monetary and exchange variation of assets	(6,826)	5,550	(7,181)	5,525
Total value added to be distributed	8,950	21,558	5,033	15,969
Personnel	4,098	4,499	1,377	2,081
Taxes and contributions	3,936	4,149	3,232	3,375
Current income tax	2,707	409	2,298	ŕ
Deferred income tax	5,236	(2,497)	4,237	(2,732)
Financial expense (excludes capitalized interest)	1,155	5,868	2,004	4,162
Monetary and exchange variation of liabilities	(18,936)	13,186	(19,547)	12,577
Other remunerations of third party funds	787	635	1,536	901
Reinvested net income (absorbed loss)	9,896	(4,395)	9,896	(4,395)
Net income (loss) attributable to noncontrolling interest	71	(296)		( , , , , ,
Distributed value added	8,950	21,558	5,033	15,969
	- )	,	- )	- ,

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

See independent auditor s report on the financial statements.

Table of Contents
Selected Notes to the Interim Financial Statements
Expressed in millions of Brazilian Reais, unless otherwise stated
Expressed in minions of Drazman Reals, unless other wise stated
1. Corporate information
1. Corporate unformation
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 and individual interim financial statements of the Company (interim financial statements) have been prepared in accordance with the International Financial Reporting Standards (IFRS) as implemented in Brazil by the Brazilian Accountant Pronouncements
Committee ( CPC ), approved by the Brazilian Securities Exchange Commission ( CVM ) and by the Brazilian Federal Accounting Council ( CFC ).
All relevant information from its own financial statements, and only this information, are being presented and correspond to those used by the Company s Management.
The consolidated financial statements present the accounts of the Group.

The individual financial statements present the accounts of the Parent Company and are presented in a summarized form in note 25.

#### b) Basis of presentation

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

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

The interim financial statements of the Group and its associates and joint ventures are measured using the currency of the primary economic environment in which each entity operates ( functional currency ). In the case of the Parent Company the functional currency is the Brazilian real ( BRL or R\$ ). For presentation purposes, these interim financial statements are presented in R\$.

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

			Average rate for the						
	Closing	rate	Three-month	s period ended	Six-months period ended				
		December 31,							
	June 30, 2016	2015	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015			
US dollar ( US\$ )	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.

#### 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.

					C Three-months p	onsolidated	20 2017			
			Income sta	tement	i nree-montns p	erioa enaea Ju	ne 30, 2016	Adjusted by		
	Net operating revenue	Cost of goods sold and services rendered	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	Divide received associate joint ver	
Ferrous minerals					•• •					
Iron ore	12,263	(6,640)	(818)			4,609	956	228		
Pellets Ferroalloys and	3,049	(1,896)	(78)	(13)	(39)	1,023	304			
manganese	214	(202)	3		(14)	1	20			
Other ferrous products and services	364	(277)	(12)	(1)	(4)	70	57			
scrvices	15,890	(9,015)					1,337	228		
	13,070	(3,013)	(505)	(12)	(175)	3,703	1,557	220		
Coal	511	(882)	(29)	(10)	(33)	(443)	54			
Base metals		ì	, ,	ì	, ,	,				
Nickel and other										
products	3,682	(3,959)	(39)		` /					
Copper	1,393	(1,037)	` /	(3)		318	208			
Fertilizers	5,075	(4,996)	(74)	(79)	(157)	(231)	1,537			
	75	(104)	(2)	(5)	(12)	(50)	25			
Potash Phosphates	75 1,276	(104) (1,412)	(3) (90)	(5) (12)						

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

Nitrogen	208	(173)	(14)	(2)		19	19	
Other fertilizers								
products	68					68		
	1,627	(1,689)	(107)	(19)	(17)	(205)	308	
Others	100	(209)	(172)	(96)		(377)	17	
Total	23,203	(16,791)	(1,287)	(276)	(402)	4,447	3,253	228
				13				

# Consolidated Three-months period ended June 30, 2015

			Statement	t of income	-montus perioa en	aea June 30, 20	)15	Adjusted by		
	Net operating revenue	sold and	Selling, administrative and other operating expenses, net	Research and evaluation expenses	Pre operating and operational stoppage	Operating income (loss)		Results on measurement	associates and	•
Ferrous minerals										
Iron ore	10,451	(6,803)	(843)	(109)	(79)	2,617	905	172		3,69
Pellets	2,989			(4)			268		552	
Ferroalloys and	2,707	(2,013)		(+)	(32)	740	200		332	1,70
manganese	165	(173)	(1)		(18)	(27)	16			(
Other ferrous products and										
services	418	,	` ,	. ,			71		25	
	14,023	(9,349)	(854)	(116)	(130)	3,574	1,260	172	577	5,58
Coal	450	(719)	(139)	(20)	(35)	(463)	145			(31
Base metals										
Nickel and other										
products	3,813		( /							72
Copper	1,254	. ,				359	162			52
	5,067	(4,435)	(127)	(77)	(563)	(135)	1,381			1,24
Fertilizers										
Potash	95	(- )		(40)						
Phosphates	1,370						199			38
Nitrogen	242	(171)		(2)	(6)	63	16			1
Other fertilizers	42					40				
products	42		4	(61)	(60)	42	220			
	1,749	(1,357)	4	(61)	(69)	266	238			50
Others	152	(108)	(166)	(91)		(213)	15			(19
Total	21,441	(15,968)	(1,282)	(365)	(797)	3,029	3,039	172	577	6,81

# Consolidated Six-months period ended June 30, 2016

			Income s Selling,	statement			.,	Adjusted by		
	Net operating revenue	sold and	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	
Ferrous										
minerals										
Iron ore	23,451	(12,529)					1,889	228		
Pellets	5,967	(3,883)	(151)	(15)	(60)	1,858	614		213	
Ferroalloys and										
manganese	396	(402)	9		(28)	(25)	49			
Other	2,0	(.02)			(=0)	(=0)	.,			
ferrous										
products										
and										
services	703	(573)	3	(2)	(7)	124	126			
501 (1005	30,517						2,678	228	213	
	20,217	(11,001)	(1,015)	(111)	(8.0)	11,010	_,0.0		210	
Coal	1,110	(2,141)	188	(18)	(37)	(898)	150			
Base										
metals										
Nickel and										
other										
products	7,565	(8,292)	(123)	(132)	(351)	(1,333)	2,754		1	
•	2,764			. ,	. ,	778	377		1	
Copper	10,329								1	
Fertilizers	10,329	(10,242)	(154)	(137)	(331)	(555)	3,131		1	
Potash	166	(196)	13	(12)	(27)	(56)	47			
	2,400	. ,								
Phosphates	436					(512)	38			
Nitrogen Other	430	(334)	(21)	(4)		37	36			
fertilizers										
	110					118			10	
products	118		(151)	(40)	(25)		569		10 <b>10</b>	
	3,120	(3,087)	(151)	(40)	(35)	(193)	309		10	
Others	194	(401)	(150)	(196)	(1)	(554)	39		191	
Others	194	(401)	(150)	(190)	(1)	(554)	39		191	
Total	45,270	(33,258)	(1,886)	(508)	(802)	8,816	6,567	228	415	

# Consolidated Six-months period ended June 30, 2015

			C4-4		nontns perioa enac	ea June 30, 201	13	A 3243 b		
			Statement Selling,	t of income				Adjusted by		,
	Net operating revenue	sold and	administrative	Research and evaluation expenses	Pre operating and operational stoppage	Operating income (loss)	Depreciation, depletion and amortization	or sale of non-	associates and	Adjuste
Ferrous										
minerals					11.50	1 2 1 2				
Iron ore	18,310									5,34
Pellets	5,767	(3,950)	) 10	(8)	(59)	1,760	514		624	1 2,89
Ferroalloys and										
manganese	372	(324)	) (2)	(1)	(38)	) 7	34			4
Other ferrous products and										
services	753	,		(6)	(2)				25	
	25,202	(18,287)	(1,397)				2,640	172	649	8,50
										1
Coal	869	(1,330)	) (334)	(34)	(71)	(900)	) 212			(68
										1
Base metals										
Nickel and other										
products	7,667	(7,022)	) (253)	(150)	(1,101)	(859)	) 2,433			1,57
Copper	2,356									98
Other base metals		(=,)								
products			722			722				72
	10,023	(8,652)		(160)	(1,103)					3,27
Fertilizers										
Potash	180	(160)	) 17	(69)	(25)	) (57)	) 41			(1
Phosphates						) 214	355	i		56
Nitrogen	465									13
Other fertilizers										
products	76					76				7
F	3,111		(55)	(111)	(121)					76
Others	263	(195)	237	(187)	(1)	) 117	26	(546)	(i) 2	2 (40
Total	39,468	(30,956)	(1,111)	(710)	(1,555)	5,136	6,039	(374)	651	11,45

### b) Assets by segment

	Consolidated						
		As at Ju	Three-months period ended June 30, 2016 Additions to	Six-months period ended June 30, 2016 Additions to			
	Trade receivables	Product inventory	Investments in associates and joint ventures	Property, plant and equipment and intangible assets	property, plant and equipment and intangible (i)	property, plant and equipment and intangible (i)	
Ferrous minerals	5,081	3,639	5,746	109,385	2,676	6,269	
Coal	193	100	933	6,317	559	1,080	
Base metals	2,118	3,848	51	80,072	815	1,870	
Fertilizers	321	1,218	290	14,580	246	399	
Others	158	9	5,701	7,501	28	60	
Total	7,871	8,814	12,721	217,855	4,324	9,678	

<sup>(</sup>i) Includes only cash effect .

			Con	nsolidated			
		Year ended D	Three-months period ended June 30, 2015 Additions to	Six-months period ended June 30, 2015 Additions to			
	Trade receivables	Product inventory	Investments in associates and joint ventures	Property, plant and equipment and intangible assets	property, plant and equipment and intangible (i)	property, plant and equipment and intangible (i)	
Ferrous minerals	3,409	4,044	5,775	110,123	3,959	8,175	
Coal	176	206	1,195	7,075	1,210	2,210	
Base metals	1,671	4,552	66	91,849	1,126	1,935	
Fertilizers	367	1,156	292	15,096	154	314	
Others	140	10	4,153	7,905	65	139	
Total	5,763	9,968	11,481	232,048	6,514	12,773	

<sup>(</sup>i) Includes only cash effect.

### c) Revenues by geographic area

# Consolidated Three-months period ended June 30, 2016

	Ferrous minerals	Coal	Base metals	Fertilizers	Others	Total
Americas, except United States and Brazil	260	35	988	24		1,307
United States of America	185		619			804
Europe	2,086	77	1,733	94		3,990
Middle East/Africa/Oceania	1,003	81	13	10		1,107
Japan	1,059	110	258			1,427
China	9,009	24	396			9,429
Asia, except Japan and China	798	184	918	69		1,969
Brazil	1,490		150	1,430	100	3,170
Net operating revenue	15,890	511	5,075	1,627	100	23,203

# Consolidated Three-months period ended June 30, 2015

		Tiff ce-months period chaca June 30, 2013					
	Ferrous minerals	Coal	Base metals	Fertilizers	Others	Total	
Americas, except United States and Brazil	310	13	1,020	57		1,400	
United States of America	15		708		24	747	
Europe	1,940	116	1,762	105		3,923	
Middle East/Africa/Oceania	874	100	52			1,026	
Japan	1,101	32	147			1,280	
China	7,382	38	553			7,973	
Asia, except Japan and China	1,015	130	673	79		1,897	
Brazil	1,386	21	152	1,508	128	3,195	
Net operating revenue	14,023	450	5,067	1,749	152	21,441	

## Consolidated Six-months period ended June 30, 2016

	Ferrous minerals	Coal	Base metals	Fertilizers	Others	Total
Americas, except United States and Brazil	615	50	2,068	62		2,795
United States of America	316		1,290		14	1,620
Europe	3,968	103	3,370	177		7,618
Middle East/Africa/Oceania	1,637	152	48	10		1,847
Japan	2,053	247	460			2,760
China	17,687	119	1,009			18,815
Asia, except Japan and China	1,404	439	1,865	147		3,855
Brazil	2,837		219	2,724	180	5,960
Net operating revenue	30,517	1,110	10,329	3,120	194	45,270

# Consolidated Six-months period ended June 30, 2015

	Ferrous	F				
	minerals	Coal	Base metals	Fertilizers	Others	Total
Americas, except United States and Brazil	579	13	1,887	98		2,577
United States of America	43		1,392		46	1,481
Europe	3,796	151	3,016	187		7,150
Middle East/Africa/Oceania	1,733	199	167	9		2,108
Japan	2,272	115	564			2,951
China	12,174	38	972			13,184
Asia, except Japan and China	1,892	302	1,489	108		3,791
Brazil	2,713	51	536	2,709	217	6,226
Net operating revenue	25,202	869	10,023	3,111	263	39,468

#### 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.

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 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 in 2016, R\$1.2 billion in 2017 and R\$1.2 billion 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 and an annual maximum of R\$1.6 billion. 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 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 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 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, of which R\$656 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 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 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 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.

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.

#### 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 R\$ 321 (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
Assets held for sale				
Accounts receivable		6	6	13
Other current assets		183	183	522
Property, plant and equipment and Intangible, net	1,595	13,168	14,763	15,257
Total assets	1,595	13,357	14,952	15,792
Liabilities associated with assets held for sale				
Suppliers and contractors		207	207	365
Other current liabilities		51	51	51
Total liabilities		258	258	416
Net assets held for sale	1,595	13,099	14,694	15,376

#### 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 R\$202 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 R\$863 upon delivery of the vessels, which is expected to happen by August, 2016. A loss of R\$26 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 R\$266 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 R\$65. 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 R\$306 and recognized a gain of R\$55 as Result on sale or disposal of investments in associates and joint ventures and a gain of R\$546 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 R\$241 as others results in associates and joint ventures.

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 R\$172 as Results on measurement or sale of non-current assets .

## 7. Cash and cash equivalents

	Cor	ısolidated
	June 30, 2016	December 31, 2015
Cash and bank deposits	8,286	7,881
Short-term investments	5,091	6,141
	13,377	14,022

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

	Consolidat	ed
	June 30, 2016	<b>December 31, 2015</b>
Trade receivables	8,073	5,988
Provision for doubtful debts	(202)	(225)
	7,871	5,763
Trade receivables related to the steel sector - %	76.52%	75.32%

	Consolidated				
	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	(8)	(4)	(9)	(4)	
Trade receivables write-offs recorded in the					
income statement	8		1	(19)	

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

## 9. Inventories

	Consolid	Consolidated		
	June 30, 2016	<b>December 31, 2015</b>		
Product inventory	9,899	11,991		
Impairment of product inventory	(1,085)	(2,023)		
	8,814	9,968		
Consumable inventory	3,595	3,807		
Total	12,409	13,775		

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

## 10. Investments in associates and joint ventures

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

	Consolidated	
	2016	2015
Balance at March 31,	12,091	12,230
Additions (i)	491	24
Disposals (ii)		241
Translation adjustment	(208)	(76)
Equity results in income statement	658	668
Dividends declared	(311)	(147)
Others		117
Balance at June 30,	12,721	13,057

<sup>(</sup>i) Refers to capital contribution of R\$448 to CSP - Companhia Siderúrgica do Pecém and R\$43 to Aliança Geração de Energia, with no change in the company s interest in associates equity.

<sup>(</sup>ii) Refers to Shandong Yankuang International Coking Co., Ltd.

	Consolidated	
	2016	2015
Balance at January 1st	11,481	10,978
Acquisitions (i)		1,819
Additions (ii)	825	54
Disposals (iii)		241
Translation adjustment	(367)	250
Equity results in income statement	1,247	(157)
Dividends declared	(419)	(223)
Others	(46)	95
Balance at June 30,	12,721	13,057

<sup>(</sup>i) Refers to Aliança Geração transaction, see note 6.

<sup>(</sup>ii) Refers to capital contribution of R\$703 to CSP - Companhia Siderúrgica do Pecém and R\$122 to Aliança Geração de Energia, with no change in the company s interest in associates equity.

<sup>(</sup>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 R\$427 and R\$(12). The independent auditor s opinion on the Norte Energia financial statements for the year ended December 31, 2015, was qualified due to an investigation related to possible breaches of law and regulation that had not been completed when the mentioned the opinion was issued. Vale believes that the auditor s qualification has no quantitative or qualitative impact on its interim financial information as of June 30, 2016.

# 11. Intangibles

Changes in intangibles are as follows:

	Goodwill (i)	Concessions (ii)	Consolidated Right of use (ii)	Software (ii)	Total
Balance at March 31, 2016	11,014	8,378	532	1,492	21,416
Additions		1,556		14	1,570
Disposals		(16)			(16)
Amortization		(146)	(1)	(141)	(288)
Translation adjustment	(681)	(16)	(83)	18	(762)
Transfers		270			270
Balance at June 30, 2016	10,333	10,026	448	1,383	22,190
Cost	10,333	13,578	711	5,071	29,693
Accumulated amortization		(3,552)	(263)	(3,688)	(7,503)
	10,333	10,026	448	1,383	22,190

			Consolidated		
	Goodwill (i)	Concessions (ii)	Right of use (ii)	Software (ii)	Total
Balance at March 31, 2015	10,889	6,069	824	1,550	19,332
Additions		724		53	777
Disposals		(12)			(12)
Amortization		(122)	(33)	(128)	(283)
Translation adjustment	(144)		(2)		(146)
Acquisition of subsidiary	1				1
Balance at June 30, 2015	10,746	6,659	789	1,475	19,669
Cost	10,746	10,078	1,604	3,868	26,296
Accumulated amortization		(3,419)	(815)	(2,393)	(6,627)
	10,746	6,659	789	1,475	19,669

	Goodwill (i)	Concessions (ii)	Consolidated Right of use (ii)	Software (ii)	Total
Balance at December 31, 2015	11,544	7,084	811	1,350	20,789
Additions	,	2,976	3	20	2,999
Disposals		(18)		(1)	(19)
Amortization		(270)	(5)	(286)	(561)
Translation adjustment	(1,211)	(16)	(98)	12	(1,313)
Transfers		270	(263)	288	295
Balance at June 30, 2016	10,333	10,026	448	1,383	22,190
Cost	10,333	13,578	711	5,071	29,693
Accumulated amortization		(3,552)	(263)	(3,688)	(7,503)
	10,333	10,026	448	1,383	22,190

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

			Consolidated		
	Goodwill (i)	Concessions (ii)	Right of use (ii)	Software (ii)	Total
Balance at December 31, 2014	9,987	5,876	789	1,462	18,114
Additions		1,073		266	1,339
Disposals		(49)			(49)
Amortization		(241)	(63)	(253)	(557)
Translation adjustment	657		63		720
Acquisition of subsidiary	102				102
Balance at June 30, 2015	10,746	6,659	789	1,475	19,669
Cost	10,746	10,078	1,604	3,868	26,296
Accumulated amortization		(3,419)	(815)	(2,393)	(6,627)
	10,746	6,659	789	1,475	19,669

<sup>(</sup>i) Indefinite useful life.

<sup>(</sup>ii) Finite useful life.

# 12. Property, plant and equipment

Changes in property, plant and equipment are as follows:

				Cons	solidated		~	
	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
Balance at				1.1	<b>F</b> - <b>F</b>		1	
March 31, 2016	2,922	35,026	31,007	27,348	38,926	27,206	43,713	206,148
Additions (i)							3,845	3,845
Disposals			(1)	(8)		(1,175)	(69)	(1,253)
Depreciation and								
amortization		(405)	(522)	(829)	(799)	(594)		(3,149)
Translation								
adjustment	(84)	(2,685)	(1,202)	(1,577)	(2,757)	(944)	1,128	(8,121)
Assets retirement								
obligations					60			60
Transfers	22	1,190	348	689	413	(920)	(2,012)	(270)
Transfers to								
non-current assets								
held for sale						(1,595)		(1,595)
Balance at								
June 30, 2016	2,860	33,126	29,630	25,623	35,843	21,978	46,605	195,665
Cost	2,860	51,619	48,187	45,097	60,590	33,541	46,605	288,499
Accumulated								
depreciation		(18,493)	(18,557)	(19,474)	(24,747)	(11,563)		(92,834)
	2,860	33,126	29,630	25,623	35,843	21,978	46,605	195,665
				~				
				Cons	solidated		<b>C</b>	
	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
Balance at	Lanu	Dunding	1 acmitics	Equipment	properties	Omers	in progress	Total

	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
Balance at								
March 31, 2015	2,960	36,387	31,505	28,762	40,662	32,019	51,328	223,623
Additions (i)							5,256	5,256
Disposals			(19)	(46)		(1,574)		(1,639)
Depreciation and								
amortization		(437)	(571)	(824)	(748)	(558)		(3,138)
Translation								
adjustment	(20)	(887)	(423)	(729)	(499)	(510)	110	(2,958)
Transfers	158	2,367	804	1,937	1,362	2,669	(9,297)	
Balance at								
June 30, 2015	3,098	37,430	31,296	29,100	40,777	32,046	47,397	221,144
Cost	3,098	45,493	46,959	44,867	59,232	45,137	47,397	292,183
		(8,063)	(15,663)	(15,767)	(18,455)	(13,091)		(71,039)

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

Accumulated depreciation								
	3,098	37,430	31,296	29,100	40,777	32,046	47,397	221,144
	Land	Building	Facilities	Cons Equipment	solidated Mineral properties	Others	Constructions in progress	Total
Balance at		Ü		• •	• •		• 0	
December 31, 2015	2,989	35,538	32,378	28,532	40,234	28,135	43,453	211,259
Additions (i)							6,964	6,964
Disposals		(2)	(2)	(48)	(11)	(1,208)	(74)	(1,345)
Depreciation and								
amortization		(848)	(1,068)	(1,663)	(1,489)	(1,141)		(6,209)
Translation								
adjustment	(137)	(3,640)	(2,213)	(2,782)	(3,878)	(1,419)	747	(13,322)
Assets retirement								
obligations					207			207
Transfers	8	2,077	535	1,584	780	(794)	(4,485)	(295)
Transfers to								
non-current asstes						(1.505)		(1.505)
held for sale						(1,595)		(1,595)
Acquisition of		1						1
subsidiary  Balance at June 30,		1						1
2016	2,860	33,126	29,630	25,623	35,843	21,978	46,605	195,665
Cost	2,860	51,619	48,187	45,097	60,590	33,541	46,605	288,499
Accumulated	2,000	31,017	70,107	73,077	00,570	33,371	70,003	200,777
depreciation		(18,493)	(18,557)	(19,474)	(24,747)	(11,563)		(92,834)
acpreciation	2,860	33,126	29,630	25,623	35,843	<b>21,978</b>	46,605	195,665
	2,000	00,120	27,000	20,020	00,010	21,570	10,000	170,000

	Consolidated							
	Lond	Building	Facilities	Fauinment	Mineral	Others	Constructions	Total
Balance at	Land	Dullullig	racinties	Equipment	properties	Others	in progress	1 Otai
	2.020	20.055	20 521	24.660	20.654	20.005	51 5 <b>5</b> 4	205 505
<b>December 31, 2014</b>	2,839	30,955	28,721	24,669	39,654	29,095	51,574	207,507
Additions (i)							11,275	11,275
Disposals		(14)	(22)	(60)	(434)	(1,592)	(5)	(2,127)
Depreciation and								
amortization		(824)	(1,167)	(1,707)	(1,372)	(1,126)		(6,196)
Translation								
adjustment	73	780	739	1,602	2,879	1,518	2,777	10,368
Transfers	186	6,533	3,025	4,595	50	3,835	(18,224)	
Acquisition of								
subsidiary				1		316		317
Balance at June 30,								
2015	3,098	37,430	31,296	29,100	40,777	32,046	47,397	221,144
Cost	3,098	45,493	46,959	44,867	59,232	45,137	47,397	292,183
Accumulated								
depreciation		(8,063)	(15,663)	(15,767)	(18,455)	(13,091)		(71,039)
	3,098	37,430	31,296	29,100	40,777	32,046	47,397	221,144

<sup>(</sup>i) Includes capitalized borrowing costs, see cash flow.

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

# 13. Loans and borrowings

## a) Total debt

	Consolidated					
	Current	liabilities		nt liabilities		
	June 30, 2016	December 31, 2015	June 30, 2016	December 31, 2015		
Debt contracts in the international						
markets						
Floating rates in:						
US\$	751	943	22,327	20,203		
Fixed rates in:						
US\$	5,174	4,651	40,109	50,463		
EUR			5,312	6,376		
Other currencies	45	56	552	659		
Accrued charges	915	1,274				
· ·	6,885	6,924	68,300	77,701		
Debt contracts in Brazil	·		·	·		
Floating rates in:						
R\$, indexed to TJLP, TR, IPCA, IGP-M						
and CDI	980	827	18,228	18,388		
Basket of currencies and US\$ indexed to						
LIBOR	1,022	1,133	4,112	5,239		
Fixed rates in:						
R\$	248	246	923	1,047		
Accrued charges	985	658	433	503		
Ţ.	3,235	2,864	23,696	25,177		
	10,120	9,788	91,996	102,878		

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

			Consolidated		Estimated future
	Bank loans (i)	Capital markets (i)	Development agencies (i)	Debt principal (i)	payments of interest(ii)
2016	112	Capital markets (1)	1,361	1,473	5,226
2017	3,120	3,890	3,136	10,146	5,425
2018	6,911	2,655	3,383	12,949	4,892
2019	2,298	3,210	3,951	9,459	4,198
2020	11,027	4,311	2,664	18,002	3,717
2021	973	4,311	2,866	8,150	3,043

Between 2022 and 2025	4,044	10,695	3,265	18,004	7,639
2026 onwards	273	20,836	491	21,600	18,646
	28,758	49,908	21,117	99,783	52,786

<sup>(</sup>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:

	Consolidated	
Loans and borrowings in	Average interest rate (i)	Total debt
US\$	4.46%	74,349
R\$ (ii)	11.13%	21,769
EUR (iii)	4.06%	5,401
Other currencies	4.35%	597
		102,116

<sup>(</sup>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.

<sup>(</sup>ii) R\$ denominated debt that bears interest at IPCA, CDI, TR or TJLP, plus spread. For a total of R\$14,495, 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\$.

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

## b) Credit and financing lines

	Contractual		Period of the	Available amount	
Type	currency	Date of agreement	agreement	Total amount	June 30, 2016
Credit lines					
Revolving credit facilities	US\$	May 2015	5 years	9,629	3,852
Revolving credit facilities	US\$	July 2013	5 years	6,420	5,777
Financing lines					
BNDES (i)	R\$	April 2008	10 years	7,300	1,112
BNDES - CLN 150	R\$	September 2012	10 years	3,883	20
BNDES - S11D e S11D Logística	R\$	May 2014	10 years	6,163	2,447

<sup>(</sup>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 R\$6,420 (US\$2billions) 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 R\$4,012 (US\$1,250). The notes bear 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 R\$1,531 and R\$1,937, 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.

26

# 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	Consolidated  Labor litigation	Environmental litigation	Total of litigation provision
Balance at March 31, 2016	776	365	1,806	82	3,029
Additions	39	157	225	11	432
Reversals	(31)	(66)	(105)	(6)	(208)
Payments	(88)	(92)	(155)		(335)
Indexation and interest	10	(5)	13	(3)	15
Translation adjustment	34				34
Balance at June 30, 2016	740	359	1,784	84	2,967

			Consolidated		
	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
Balance at March 31, 2015	980	367	1,910	229	3,486
Additions	41	95	114		250
Reversals	(20)	(57)	(46)	(1)	(124)
Payments	(15)	(4)	(67)	(13)	(99)
Indexation and interest	27	4	28	2	61
Translation adjustment	(10)			(5)	(15)
Balance at june 30, 2015	1,003	405	1,939	212	3,559

			Consolidated	Environmental	Total of litigation
	Tax litigation	Civil litigation	Labor litigation	litigation	provision
Balance at December 31,					
2015	1,052	309	1,771	78	3,210
Additions	51	204	400	18	673
Reversals	(61)	(81)	(171)	(14)	(327)
Payments	(356)	(162)	(244)		(762)

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

Balance at June 30, 2016	740	359	1,784	84	2,967
Translation adjustment	21		2	1	24
Indexation and interest	33	89	26	1	149

			Consolidated		
	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
Balance at December 31,				, and the second	•
2014	972	311	1,876	246	3,405
Additions	443	142	215		800
Reversals	(516)	(90)	(120)	(1)	(727)
Payments	(24)	(4)	(80)	(59)	(167)
Indexation and interest	83	45	48	6	182
Translation adjustment	45	1		20	66
Balance at June 30, 2015	1.003	405	1.939	212	3,559

#### 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:

	Consolidated		
	June 30, 2016	<b>December 31, 2015</b>	
Tax litigation	23,195	20,796	
Civil litigation	5,213	5,214	
Labor litigation	7,391	7,288	
Environmental litigation	5,839	5,393	
Total	41,638	38,691	

- 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.

	Consoli	dated
	June 30, 2016	December 31, 2015
Tax litigation	841	822
Civil litigation	327	399
Labor litigation	2,264	2,163
Environmental litigation	67	61
Total	3,499	3,445

## d) Others

In the third quarter of 2015, the Company filed an enforceable action in the amount of R\$524 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.

## 15. Income taxes

## a) Deferred income tax

Changes in deferred tax are as follows:

	Assets	Consolidated Liabilities	Total
Balance at March 31, 2016	27,317	6,467	20,850
Effect in income statement	(3,161)	(36)	(3,125)
Translation adjustment	(1,022)	(892)	(130)
Transfers between asset and liabilities	225	225	
Other comprehensive income	37	(183)	220
Balance at June 30, 2016	23,396	5,581	17,815

		Consolidated		
	Assets	Liabilities	Total	
Balance at March 31, 2015	14,036	9,942	4,094	
Effect in income statement	(492)	(139)	(353)	
Translation adjustment	(254)	(362)	108	
Other comprehensive income	51	144	(93)	
Balance at June 30, 2015	13,341	9,585	3,756	

		Consolidated	
	Assets	Liabilities	Total
Balance at December 31, 2015	30,867	6,520	24,347
Effect in income statement	(5,449)	(213)	(5,236)
Translation adjustment	(2,114)	(1,046)	(1,068)
Transfers between asset and liabilities	575	575	
Other comprehensive income	(483)	(255)	(228)
Balance at June 30, 2016	23,396	5,581	17,815

	Assets	Consolidated Liabilities	Total
Balance at December 31, 2014	10,560	8,874	1,686
Effect in income statement	2,336	(161)	2,497
Translation adjustment	423	883	(460)
Acquisition of subsidiary	(31)		(31)
Other comprehensive income	53	(11)	64

Balance at June 30, 2015 13,341 9,585 3,756

# 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:

	Consolidated				
	Three-months period ended June 30		Six-months per June 3		
	2016	2015	2016	2015	
Net income (loss) before income taxes	8,179	5,562	17,910	(6,779)	
Income taxes at statutory rates - 34%	(2,781)	(1,891)	(6,089)	2,305	
Adjustments that affect the basis of taxes:					
Income tax benefit from interest on stockholders equity		509		1,054	
Tax incentives	336	75	347	75	
Results of overseas companies taxed by different rates which					
differs from the parent company rate		867		(118)	
Equity results	217	228	431	(53)	
Additions(reversals) of tax loss carry forward	(776)		(567)		
Unrecognized tax losses of the period	(568)		(1,291)		
Others results in associates and joint ventures	(1,269)		(1,269)		
Others	301	(349)	495	(1,175)	
Income taxes	(4,540)	(561)	(7,943)	2,088	
	29				
	-				

## 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 R\$17,508 (R\$1,419 as current and R\$16,089 as non-current) is due in 148 remaining monthly installments, bearing interest at the SELIC rate.

## 16. Employee postretirement obligations

#### Reconciliation of assets and liabilities recognized in the balance sheet

			Consoli	idated		
	Overfunded pension plans	June 30, 2016 Underfunded pension plans	Others benefits	Overfunded pension plans	December 31, 2015 Underfunded pension plans	Others benefits
Balance at beginning of						
the period	3,754			3,455		
Interest income	266			427		
Changes in asset ceiling and						
onerous liability	1,423			(128)		
Balance at end of the						
period	5,443			3,754		
Amount recognized in the						
balance sheet						
Present value of actuarial						
liabilities	(9,873)	(13,045)	(4,487)	(9,659)	(14,407)	(4,773)
Fair value of assets	15,316	10,384		13,413	12,083	
Effect of the asset ceiling	(5,443)			(3,754)		
Liabilities	, , ,	(2,661)	(4,487)		(2,324)	(4,773)
		` , , ,	, , ,		` , , ,	
Current liabilities		(65)	(183)		(67)	(199)
Non-current liabilities		(2,596)	(4,304)		(2,257)	(4,574)
Liabilities		(2,661)	(4,487)		(2,324)	(4,773)

# 17. Financial instruments classification

		June 30, 2016		Consolidated	December	31, 2015	
	Loans and receivables or amortized	At fair value through net		Loans and receivables or amortized	At fair value through net	Derivatives designated as hedge	
	cost	income	Total	cost	income	accounting	Total
Financial assets							
Current							
Cash and cash							
equivalents	13,377		13,377	14,022			14,022
Financial investments	443		443	109			109
Derivative financial							
instruments		437	437		474		474
Accounts receivable	7,871		7,871	5,763			5,763
Related parties	218		218	273			273
	21,909	437	22,346	20,167	474		20,641
Non-current							
Derivative financial		1.504	1.506		2.62		262
instruments	55.6	1,596	1,596	722	363		363
Loans	576		576	732			732
Related parties	10	1.507	10	5	2/2		5
Tr. 4-1 - 6 6 1	586	1,596	2,182	737	363		1,100
Total of financial	22 405	2.022	24.520	20.004	927		21 741
assets	22,495	2,033	24,528	20,904	837		21,741
Financial liabilities							
Current							
Suppliers and							
contractors	12,489		12,489	13,140			13,140
Derivative financial	12,409		12,409	13,140			13,140
instruments		3,242	3,242		7,909	198	8,107
Loans and borrowings	10,120	3,242	10,120	9,788	7,505	170	9,788
Related parties	1,927		1,927	1,856			1,856
Related parties	24,536	3,242	27,778	24,784	7,909	198	32,891
Non-current	24,000	3,242	27,770	24,704	1,505	170	32,071
Derivative financial							
instruments		3.857	3,857		5,581		5.581
Loans and borrowings	91,996	3,037	91,996	102,878	3,301		102,878
Related parties	462		462	830			830
Participative			.02	000			020
stockholders							
debentures		1,982	1,982		1,336		1,336
Others (i)		706	706		551		551
- ()	92,458	6,545	99,003	103,708	7,468		111,176
Total of financial	,		,		,		, ,
liabilities	116,994	9,787	126,781	128,492	15,377	198	144,067

<sup>(</sup>i) See note 18(a).

## 18. Fair value estimate

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

	Consolidated					
		June 30, 2016			December 31, 2015	
	Level 2	Level 3	Total	Level 2	Level 3	Total
Financial assets						
Derivative financial instruments	991	1,042	2,033	837		837
Total	991	1,042	2,033	837		837
Financial liabilities						
Derivative financial instruments	6,320	779	7,099	13,688		13,688
Participative stockholders debentures	1,982		1,982	1,336		1,336
Others (minimum return instrument)		706	706		551	551
Total	8,302	1,485	9,787	15,024	551	15,575

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:

		Consolida	ated	
Financial liabilities	Balance	Fair value	Level 1	Level 2
June 30, 2016				
Debt principal	99,783	97,739	47,774	49,965
• •				
December 31, 2015				
Debt principal	110,231	102,434	48,017	54,417

## 19. Derivative financial instruments

# a) Derivatives effects on balance sheet

		Consolida Assets	ted	
	June 30		December	
	Current	Non-current	Current	Non-current
Derivatives not designated as hedge				
accounting				
Foreign exchange and interest rate risk				
CDI & TJLP vs. US\$ fixed and floating rate				
swap	353	174	269	
IPCA swap	23	161	7	64
Pré-dolar swap	6	100		
•	382	435	276	64
Commodities price risk				
Nickel	49	3	198	41
Bunker oil	6			
	55	3	198	41
Others		1,158		258
		1,158		258
Total	437	1,596	474	363
		,		
	2	1		
	3	I		

		Consolidate Liabilities	d	
	June 30	, 2016	December	31, 2015
	Current	Non-current	Current	Non-current
Derivatives not designated as hedge accounting				
Foreign exchange and interest rate risk				
CDI & TJLP vs. US\$ fixed and floating rate				
swap	1,974	2,598	3,119	4,419
IPCA swap	83	229	82	393
Eurobonds swap	21	104	572	111
Euro forward	39			
Pre dollar swap	64	141	364	280
	2,181	3,072	4,137	5,203
Commodities price risk				
Nickel	48	2	153	42
Bunker oil	1,013		3,609	
	1,061	2	3,762	42
Others		783		336
		783		336
Derivatives designated as cash flow hedge accounting				
Bunker oil			198	
Foreign exchange			10	
			208	
Total	3,242	3,857	8,107	5,581

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

	Gain (loss) reco income sta	~	Consolida Three-months period Financial set inflows(out	l ended June 30 tlement		ognized in other
	2016	2015	2016	2015	2016	2015
Derivatives not designated as hedge accounting						
Foreign exchange and interest rate risk						
CDI & TJLP vs. US\$ fixed and						
floating rate swap	1,491	534	(163)	37		
IPCA swap	101	73	, ,	9		
Eurobonds swap	(70)	86		(39)		
Euro forward	(51)					
Pre dollar swap	137	37	(6)	(5)		
-	1,608	730	(169)	2		
Commodities price risk						

Nickel	(49)	(34)	(35)	(34)		
Bunker oil	526	236	(1,032)	30		
	477	202	(1,067)	(4)		
Others	488	(203)				
	488	(203)				
Derivatives designated as cash						
flow hedge accounting						
Bunker oil		(291)		(271)		524
Foreign exchange		(30)		(30)	2	29
		(321)		(301)	2	553
Total	2,573	408	(1,236)	(303)	2	553
		32				

			Consolid			
	Gain (loss) recognincome sta	tement	Six-months period Financial ser inflows(out	ttlement tflows)	Gain(loss) recog	ive income
	2016	2015	2016	2015	2016	2015
Derivatives not designated as						
hedge accounting						
Foreign exchange and interest						
rate risk						
CDI & TJLP vs. US\$ fixed and	2.002	(2.250)	(220)	(070)		
floating rate swap	2,803	(2,359)	(338)	(879)		
IPCA swap	241	(150)	5	20		
Eurobonds swap	(30)	(338)	(524)	(39)		
Euro forward	(42)	(225)	(204)	(4.4)		
Pre dollar swap	244	(235)	(301)	(11)		
	3,216	(3,082)	(1,158)	(909)		
Commodities price risk						
Nickel	(143)	(57)	(104)	(79)		
Bunker oil	466	84	(1,737)	(382)		
	323	27	(1,841)	(461)		
Others	470	(222)				
	470	(222)				
Derivatives designated as cash						
flow hedge accounting						
Bunker oil		(634)	(203)	(646)		832
Foreign exchange	(10)	(72)	(10)	(72)	10	28
	(10)	(706)	(213)	(718)	10	860
Total	3,999	(3,983)	(3,212)	(2,088)	10	860

The Company recognized as operating income and financial results the loss of R\$291 and gain of R\$699 for the three-months period ended June 30, 2015, and R\$634 and R\$3,349 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:

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

Additional information about derivatives financial instruments

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

There was no cash amount deposited as margin call regarding derivative positions on 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.

## a) Foreign exchange and interest rates derivative positions

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

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

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

Flow		Notional , <b>D0d6</b> mber	r 31, 2	2(It <del>s</del> ilex	Average rate		ir value December 31, 2015	Financial settlement Inflows (Outflows) June 30, 2016	Value at Risk June 30, 2016			e by yo 2018	
CDI vs.	US\$ fixed	l rate swap	p			(1,734)	(3,059)	227	156	(1,228)	48	(554)	
Receivab	ole R\$ 5	,739 R\$	5,239	CDI	107.41%								
Payable	US\$ 2	,427 US\$	2,288	Fix	3.47%								
TJLP vs	. US\$ fixe	ed rate swa	ap			(2,147)	(3,965)	(561)	217	(164)	(692)	(335)	(957)
Receivab	ole R\$ 5	,096 R\$	5,484	TJLP+	1.33%								
Payable	US\$ 2	,251 US\$	2,611	Fix	1.72%								
TJLP vs	. US\$ floa	ating rate											
swap						(164)	(245)	(4)	15	(3)	(9)	(13)	(139)
Receivab	ole R\$	256 R\$	267	TJLP+	0.92%								
Payable	US\$	148 US\$	156	Libor+	-1.21%								
-													
R\$ fixed	rate vs. I	US\$ fixed											
rate swa	p					(99)	(644)	(300)	77	(52)	(14)	36	(69)
Receivab	ole R\$ 1	,128 R\$	1,356	Fix	7.32%								
Payable	US\$	391 US\$	528	Fix	-0.83%								
IPCA vs	. US\$ fixe	ed rate											
swap						(178)	(411)	5	36		20	16	(214)
Receivab	ole R\$ 1	,000 R\$	1,000	IPCA+	6.55%								
Payable	US\$	434 US\$	434	Fix	3.98%								
-													
IPCA vs	. CDI swa	ар				51	6		1	(80)	(59)	(34)	224
		,350 R\$	1,350	IPCA+	6.62%						, ,	, ,	

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.

Notional						Fa	Financial settlement Fair value Inflows (Outflows) Value at Risk				Fair value by year		
Flow	June 30,I	<b>L</b> ecteon be	er 31, 20	<b>Tha</b> lex	Average rate	June 30, 2016	December 31, 2015	June 30, 2016	June 30, 2016	2016 2017	2018	2019+	
EUR fixe	d rate vs.	US\$ fix	ed										
rate swaj	)					(125)	(683)	(524	) 33	(18)	(16)	(91)	
Receivab	le 50	00	1,000	Fix	3.75%	)							
Payable	US\$ 6	13 US\$	1,302	Fix	4.29%	Ď							

						Financial settlement		
	Notional	Bought /	Average rate	Fa	ir value	Inflows (Outflows)	Value at RisFair valu	e by year
Flow	June 30, 201 December 31, 2	2015 Sold	(USD/EUR)	June 30, 2016	December 31, 2015	June 30, 2016	June 30, 2016 2016	2017
Forwar	rd 500	В	1.143	(39)			20.1	(39)

#### (iii) Foreign exchange hedging program for disbursements in CAD

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

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

							Financial settlement		Fair value
	N	otional	Bought /	Average rate	Fa	ir value	Inflows (Outflows)	Value at Risk	by year
Flow	June 30, 2016	December 31, 2015	Sold	(CAD / USD)	June 30, 2016	December 31, 2015	June 30, 2016	June 30, 2016	2016
Forward		CAD 10	В	1.028		(10)			

#### 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.

	Noti	ional (ton)	Bought /	/ Average strike	Fa	ir value	Financial Settlement Inflows (Outflows)	Value at Risk	Fair value by year
Flow	June 30, 2016	December 31, 2015	Sold	(US\$/ton)	June 30, 2016	December 31, 2015	June 30, 2016	June 30, 2016	2016
Bunker Oil									
protection									
Forwards	705,000	1,867,500	В	511	(577)	(2,252)	(1,195)	) 27	(577)
Call									
options	1,080,000	2,041,500	В	380	6.0	0.1		2.5	6.0
Put options	1,080,000	2,041,500	S	300	(184)	(1,158)	(542)	30	(184)
Total					(755)	(3,410)			(755)

As at June 30, 2016 and December 31, 2015, excludes R\$252 and R\$397, 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) June 30, 2016 December 31, 20		Average strike (US\$/ton)	Fair value June 30, 2016 December		Financial Settlement Inflows (Outflows) June 30, 2016	Value at Risk F June 30, 2016 2			•
Fixed prices sales protection										
Nickel forwards	14,545 16,9	17 B	10,429	(42)	(180)	(102)	14	(29)	(17)	4
Raw materials purchase protection										
Nickel forwards	178	18 S	8,813	(0.3)	0.4	0.4	0.2	(0.3)		
Copper forwards <b>Total</b>	581	85 S	4,774	(0.1) ( <b>0.5</b> )	0.4 <b>0.7</b>	0.3		(0.1) ( <b>0.5</b> )		

#### 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.

					•				
	<b>N 1</b> /		D 147				I 6 (O (6)	W.1. (D.1.	Fair value
	Notional (	(quantity)	Bought /	Average strike	Fa	ir value	Inflows (Outflows)	Value at Risk	by year
Flow	June 30, 2016 De	ecember 31, 2015	Sold	(US\$/share)	June 30, 2016	December 31, 2015	June 30, 2016	June 30, 2016	2023
Call									
options	10,000,000	10,000,000	В	65	116	28		21	116

Financial Settlement

#### 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 option s strike price is given by the debentures remaining notional in each exercise date.

					Financial Settlement				
	Notional	(quantity)	Rought /	Average strike	Fo	ir value	Inflows (Outflows)	Value at Risk	Fair value by year
Flow		December 31, 2015	0	(R\$/share)		December 31, 2015	June 30, 2016	June 30, 2016	2027
Call			_						(4.50)
options	140,239	140,239	S	8,570	(139)	(152)		9	(139)

## 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. It this case, the Company could settle through cash or shares. On the other hand, the Company has the right to buy back this non-controlling interest in the subsidiary.

#### Financial Settlement

									Fair value
	Notional (qua	antity, in millions)	Bought /	Average strike	Fa	ir value	Inflows (Outflows)	Value at Risk	by year
Flow	June 30, 2016	December 31, 2015	Sold	(R\$/ação)	June 30, 2016	December 31, 2015	June 30, 2016	June 30, 2016	2016+
Options	2,139	2,139	B/S	1.9	402	57		33	402

## 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.

#### **Financial Settlement**

									Fair value
	Notio	onal (ton)	Bought /	Average strike	Fa	ir value	Inflows (Outflows)	Value at Risk	by year
Flow	June 30, 2016	December 31, 2015	Sold	(US\$/ton)	June 30, 2016	December 31, 2015	June 30, 2016	June 30, 2016	2016
Nickel									
Forward	4,983	3,877	S	8,543	(0.9)	11.7			(2.1)
Copper									
Forward	3,937	5,939	S	4,653	(1.3)	7.7			1.0
Total					(2.2)	19.4		5.7	(1.1)

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/mont June 30, 2016 December 31		Bought / Sold	Average strike (US\$/ton)	Fair value June 30, 2016 December 31, 2015	Financial Settlement Inflows (Outflows) June 30, 2016	
Call options	746,667 7	746,667	S	179	(4.2)		2.7 (0.0) (0.1) (4.1)

## g) Sensitivity analysis of derivative financial instruments

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

- Scenario I: fair value calculation considering market prices as of 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
CDI vs. US\$ fixed rate swap	R\$ depreciation	(1.734)	(3.718)	(5.702)
	US\$ interest rate inside Brazil			
	decrease	(1.734)	(1.770)	(1.806)
	Brazilian interest rate increase	(1.734)	(1.741)	(1.749)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
TJLP vs. US\$ fixed rate swap	R\$ depreciation	(2.147)	(3.895)	(5.643)
TJLF vs. US\$ fixed rate swap	US\$ interest rate inside Brazil	(2.147)	(3.693)	(3.043)
	decrease	(2.147)	(2.258)	(2.374)
	Brazilian interest rate increase	(2.147)	(2.377)	(2.585)
	TJLP interest rate decrease	(2.147)	(2.300)	(2.459)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.	(=1000)	(=1.107)
TJLP vs. US\$ floating rate swap	R\$ depreciation	(164)	(271)	(377)
	US\$ interest rate inside Brazil			
	decrease	(164)	(174)	(184)
	Brazilian interest rate increase	(164)	(179)	(193)
	TJLP interest rate decrease	(164)	(174)	(185)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
R\$ fixed rate vs. US\$ fixed rate swap	R\$ depreciation	(99)	(417)	(735)
	US\$ interest rate inside Brazil			
	decrease	(99)	(145)	(195)
	Brazilian interest rate increase	(99)	(202)	(290)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
IPCA vs. US\$ fixed rate swap	R\$ depreciation	(178)	(550)	(922)

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

	US\$ interest rate inside Brazil			
	decrease	(178)	(207)	(237)
	Brazilian interest rate increase	(178)	(282)	(374)
	IPCA index decrease	(178)	(230)	(280)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
IPCA vs. CDI swap	Brazilian interest rate increase	51	(110)	(247)
	IPCA index decrease	51	(30)	(107)
Protected item: R\$ denominated debt linked to IPCA	IPCA index decrease	n.a.	30	107
EUR fixed rate vs. US\$ fixed rate swap	EUR depreciation	(125)	(685)	(1.246)
	Euribor increase	(125)	(139)	(153)
	US\$ Libor decrease	(125)	(162)	(201)
Protected item: EUR denominated debt	EUR depreciation	n.a.	685	1.246
EUR Forward	EUR depreciation	(39)	(485)	(931)
	Euribor increase	(39)	(40)	(42)
	US\$ Libor decrease	(39)	(41)	(43)
Protected item: EUR denominated debt	EUR depreciation	n.a.	485	931

Instrument	Instrument s main risk events	Scenario I	Scenario II	Scenario III
Bunker Oil protection				
Forwards and options	Bunker Oil price decrease	(755)	(1.093)	(1.453)
Protected item: Part of costs linked to bunker oil prices	Bunker Oil price decrease	n.a.	1.093	1.453
Nickel sales fixed price protection				
Forwards	Nickel price decrease	(42)	(153)	(263)
Protected item: Part of nickel revenues with fixed prices	Nickel price fluctuation	n.a.	153	263
Purchase protection program				
Nickel forwards	Nickel price increase	(0,3)	(1,7)	(3,0)
Protected item: Part of costs linked to nickel prices	Nickel price increase	n.a.	1,7	3,0
Copper forwards	Copper price increase	(0,1)	(2,4)	(4,7)
Protected item: Part of costs linked to copper prices	Copper price increase	n.a.	2,4	4,7
SLW warrants	SLW stock price decrease	116	15	(67)
VLI call options	VLI stock value increase	(139)	(220)	(304)
Options regarding non-controlling interest in subsidiary	Subsidiary stock value decrease	402	153	(33)
Instrument	Main risks	Scenario I	Scenario II	Scenario III
Embedded derivatives - Raw material purchase (nickel)	Nickel price increase	(1)	(37)	(72)
Embedded derivatives - Raw material purchase (copper)	Copper price increase	(1)	(16)	(31)
Embedded derivatives - Gas purchase	Pellet price increase	(4)	(8)	(15)

## 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.

Long term ratings by counterparty Moody s S&P

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

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+

## 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

SPOT	9,415	DEC16	9,488	JUN17	9,556
AUG16	9,433	FEB17	9,515	JUN19	9,773
OCT16	9,462	APR17	9,536		
	,		,		

SPOT	2.20	DEC16	2.20	JUN17	2.20
AUG16	2.20	FEB17	2.20	JUN19	2.22
OCT16	2.20	APR17	2.20		

SPOT	257	DEC16	253	JUN17	263
AUG16	250	FEB17	257	JUN19	295
OCT16	250	APR17	260		

## (ii) Foreign exchange and interest rates

## **US\$-Brazil Interest Rate**

08/01/16	3.54	06/01/17	2.80	10/01/19	3.52
10/03/16	2.90	10/02/17	2.89	04/01/20	3.72
12/01/16	2.72	04/02/18	3.03	10/01/20	4.03
02/01/17	2.69	10/01/18	3.21	04/01/21	4.25
04/03/17	2.73	04/01/19	3.39	01/03/22	4.63

## **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

39

#### **BRL Interest Rate**

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
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)

Maturity	Rate (% p.a.)	Maturity	<b>Rate</b> (% p.a.)	Maturity	Rate (% p.a.)
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**

ľ	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
	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	10 <b>M</b>	-0.20	4Y	-0.01

#### **CAD Interest Rate**

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

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
1M	0.88	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	10 <b>M</b>	0.90	4Y	0.90

## **Currencies - Ending rates**

CAD/US\$	0.7682	US\$/BRL	3.2098	EUR/US\$	1.1103
			40		

## 20. Stockholders equity

## a) Share capital

At June 30, 2016 and December 31, 2015, the share capital was R\$77,300 corresponding to 5,244,316,120 shares issued and fully paid without par value.

		June 30, 2016	
	ON	PNA	Total
Stockholders			
Valepar S.A.	1,716,435,045	20,340,000	1,736,775,045
Brazilian Government (Golden Share)		12	12
Foreign investors - ADRs	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
Shares outstanding	3,185,653,000	1,967,721,926	5,153,374,926
Shares in treasury	31,535,402	59,405,792	90,941,194
Total issued shares	3,217,188,402	2,027,127,718	5,244,316,120
Amounts per class of shares (in millions)	47,421	29,879	77,300
Total authorized shares	3,600,000,000	7,200,000,000	10,800,000,000

## b) Basic and diluted earnings per share

Basic and diluted earnings per share are as follows:

	Three-months period	l ended June 30	Six-months period ended June 30	
	2016	2015	2016	2015
Net income (loss) attributable to Vale s				
stockholders	3,585	5,144	9,896	(4,395)

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

Basic and diluted earnings per share:				
Income (loss) available to preferred stockholders	1,369	1,964	3,779	(1,678)
Income (loss) available to common stockholders	2,216	3,180	6,117	(2,717)
Total	3,585	5,144	9,896	(4,395)
Thousands of shares				
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
Total	5,153,375	5,153,375	5,153,375	5,153,375
Basic and diluted earnings per share				
Preferred share	0.70	1.00	1.92	(0.85)
Common share	0.70	1.00	1.92	(0.85)
	41			
	41			

## 21. Costs and expenses by nature

## a) Cost of goods sold and services rendered

	Consolidated					
	Three-months period	ended June 30	Six-months period ended June 30			
	2016	2015	2016	2015		
Personnel	2,092	1,941	4,037	3,509		
Materials and services	4,049	3,045	7,123	5,904		
Fuel oil and gas	1,106	1,086	2,299	1,973		
Maintenance	2,265	2,130	4,685	4,039		
Energy	670	529	1,305	943		
Acquisition of products	511	763	837	1,467		
Depreciation and depletion	3,037	2,714	6,196	5,367		
Freight	2,132	2,638	4,052	4,906		
Others	929	1,122	2,724	2,848		
Total	16,791	15,968	33,258	30,956		
Cost of goods sold	16,380	15,542	32,431	30,110		
Cost of services rendered	411	426	827	846		
Total	16,791	15,968	33,258	30,956		

## b) Selling and administrative expenses

	Consolidated				
	Three-months period	ended June 30	Six-months period e	Six-months period ended June 30	
	2016	2015	2016	2015	
Personnel	204	223	403	462	
Services (consulting, infrastructure and others)	63	77	124	158	
Advertising and publicity	6	8	10	16	
Depreciation and amortization	116	103	205	185	
Travel expenses	9	9	14	17	
Taxes and rents	10	11	25	28	
Others	85	57	177	177	
Total	493	488	958	1,043	

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

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

	Consolidated				
	Three-months period	ended June 30	Six-months period en	Six-months period ended June 30	
	2016	2015	2016	2015	
Provision for litigation	224	126	346	73	
Provision for loss with VAT credits (ICMS)	19	194	136	313	
Provision (reversals) for disposal of materials and					
inventories	(22)	97	(351)	282	
Gold stream transaction				(722)	
Insurance and externalities	116	22	194	59	
Result on sale or disposal of property, plant and					
equipment and intangible	104	(47)	144		
Others	125	230	231	437	
Total	566	622	700	442	

#### 22. Financial result

	Consolidated					
	Three-months period	ended June 30	Six-months period e	nded June 30		
	2016	2015	2016	2015		
Financial expenses						
Loans and borrowings gross interest	(1,586)	(1,246)	(3,197)	(2,365)		
Capitalized loans and borrowing costs	749	545	1,439	1,101		
Labor, tax and civil lawsuits	(1)	(53)	(82)	(147)		
Derivative financial instruments	(575)	(267)	(803)	(4,316)		
Indexation and exchange rate variation (a)	(3,625)	(1,934)	(7,904)	(17,846)		
Participative stockholders debentures	(312)	1,107	(763)	1,828		
Expenses of REFIS	(454)	(439)	(902)	(848)		
Others	(540)	(575)	(1,112)	(898)		
	(6,344)	(2,862)	(13,324)	(23,491)		
Financial income						
Short-term investments	95	65	259	139		
Derivative financial instruments	3,148	966	4,802	967		
Indexation and exchange rate variation (b)	10,149	3,431	20,014	10,210		
Others	25	24	95	121		
	13,417	4,486	25,170	11,437		
Financial results, net	7,073	1,624	11,846	(12,054)		
Summary of indexation and exchange rate						
variation						
Loans and borrowings	9,509	2,735	19,101	(12,355)		
Others	(2,985)	(1,238)	(6,991)	4,719		
Net (a) + (b)	6,524	1,497	12,110	(7,636)		

#### 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 R\$ 480 (US\$135).

## b) Operating lease and purchase obligations

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

2016	170
2017	196
2018	206
2019	177
2020 and thereafter	186
Total minimum payments required	935

## 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 R\$1.125 and R\$4.228 respectively.

## 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:

	Assets Consolidated							
	June 30, 2016			December 31, 2015			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.	157	1,072		•	144	258		•
Banco do Brasil S.A.	520	125			1,544	62		
Baovale Mineração S.A.								4
Companhia Coreano-Brasileira de								
Pelotização				45				22
Companhia Hispano-Brasileira de								
Pelotização			7				3	14
Companhia Ítalo-Brasileira de								
Pelotização								33
Companhia Nipo-Brasileira de				71				25
Pelotização				71				35
Companhia Siderúrgica do Pecem			80					
Consórcio de								
Rebocadores da Baia								
de São Marcos			39				60	
Ferrovia Norte Sul								
S.A.			26				12	
Mitsui & Co., Ltd.			9				5	

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

MRS Logística S.A.				61				65
VLI Multimodal S.A.			18				36	
VLI Operações								
Portuárias S.A.			43				99	
VLI S.A.				38				39
Others			55	13			91	66
Total	677	1,197	277	228	1,688	320	306	278

Liabilities
Consolidated

		June 30 Derivative				Derivative		
	Others liabilities	financial instruments	Related parties	Loans and borrowings	Others liabilities	financial instruments	Related parties	Loans and borrowings
Aliança Geração de			F-112-12-12	g			F	
Energia S.A.	38		174		43			
Banco Bradesco S.A.	424	1.098		562	212	800		1.445
Banco do Brasil S.A.		664		9.475		976		10.250
Baovale Mineração								
S.A.	57				29			
BNDES		138		14.951		152		15.877
BNDES Participações				4.000				4 440
S.A.				1.399				1.449
Companhia								
Coreano-Brasileira de	216		110		15		072	
Pelotização	216		110		15		273	
Companhia Hispano-Brasileira de								
Pelotização	74		68		143		26	
Companhia	74		00		143		20	
Ítalo-Brasileira de								
Pelotização	70		161		12		252	
Companhia	, ,		101				202	
Nipo-Brasileira de								
Pelotização	209		207		34		436	
Consórcio de								
Rebocadores Baia da								
São Marcos					30			
Ferrovia Centro								
Atlântica S.A.			266				266	
Mitsui & Co., Ltd.	42				41			
MRS Logística S.A.	37				91			
Sumic Nickel								
Netherland B.V.			1.162				1.374	
VLI S.A.	2		218					
Others	7		23		93		59	
Total	1.176	1.900	2.389	26.387	743	1.928	2.686	29.021

	Consolidated Three-months period ended June 30 2016 2015					
	Net operating	Costs and	Financial	Net operating	Costs and	
	revenue	expenses	result	revenue	expenses	Financial result
Banco Bradesco S.A. (i)			486			31
Banco do Brasil S.A. (i)			(166)			38
Baovale Mineração S.A.		(18)			(47)	
BNDES (i)			(358)			(58)
BNDES Participações S.A. (i)			(49)			(4)
Companhia Coreano-Brasileira						
de Pelotização		(62)			(57)	
Companhia Hispano-Brasileira de						
Pelotização		(30)			(27)	
Companhia Ítalo-Brasileira de						
Pelotização		(44)			(44)	
Companhia Nipo-Brasileira de						
Pelotização		(70)			(78)	
Companhia Siderúrgica do						
Atlântico		(21)				
Companhia Siderúrgica do						
Pecem	53					
Ferrovia Centro Atlântica S.A.	40	(25)		38	(29)	
Ferrovia Norte Sul S.A.	22					
Mitsui & Co., Ltd.	147			155		
MRS Logística S.A.		(489)			(433)	
Samarco Mineração S.A.				176		
VLI Operações Portuárias S.A.	135	(11)				
VLI S.A.	111			209		
Others	3	(30)		37	(36)	(7)
Total	511	(800)	(87)	615	(751)	

<sup>(</sup>i) Does not include exchange rate variation

	Consolidated					
			Six-months period	d ended June 30	2015	
		2016				
	Net operating	Costs and		Net operating	Costs and	
	revenue	expenses	Financial result	revenue	expenses	Financial result
Banco Bradesco S.A. (i)			428			(168)
Banco do Brasil S.A. (i)			(298)			(368)
Baovale Mineração S.A.		(30)			(60)	
BNDES (i)			(528)			(108)
BNDES Participações S.A. (i)			(73)			(32)
Companhia Coreano-Brasileira						
de Pelotização		(131)			(103)	

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

Companhia Hispano-Brasileira						
de Pelotização		(71)			(63)	
Companhia Ítalo-Brasileira de						
Pelotização		(81)			(83)	
Companhia Nipo-Brasileira de						
Pelotização		(197)			(150)	
Companhia Siderúrgica do						
Atlântico		(21)				
Companhia Siderúrgica do						
Pecem	116					
Ferrovia Centro Atlântica S.A.	69	(44)	(2)	73	(62)	
Ferrovia Norte Sul S.A.	39					
Mitsui & Co., Ltd.	226			325		
MRS Logística S.A.		(729)			(775)	
Samarco Mineração S.A.	1			266		
VLI Operações Portuárias S.A.	249	(11)				
VLI S.A.	218			387		
Others	40	(65)		100	(70)	4
Total	958	(1,380)	(473)	1,151	(1,366)	(672)

<sup>(</sup>i) Does not include exchange rate variation

## 25. Select notes to Parent Company information (individual interim information)

## (a) Investments

	Parent company		
	2016	2015	
Balance at January 1st	127,517	118,628	
Acquisitions (i)		1,819	
Additions	1,282	940	
Capitalizations	5		
Translation adjustment	(14,304)	10,964	
Equity results in income statement	4,652	(1,757)	
Equity results in statement of comprehensive income	(618)	920	
Dividends declared	(1,157)	(341)	
Transfer to held for sale		52	
Others	(26)	(30)	
Balance at June 30,	117,351	131,195	

<sup>(</sup>i) Refers to Aliança Geração transaction, see note 6.

## (b) Intangible

	Parent company					
	Concessions (i)	Right of use (i)	Software (i)	Total		
Balance at December 31, 2015	7,084	123	1,350	8,557		
Additions (ii)	2,973		18	2,991		
Disposals	(18)			(18)		
Amortization	(258)	(3)	(253)	(514)		
Balance at June 30, 2016	9,781	120	1,115	11,016		
Cost	13,151	223	4,015	17,389		
Accumulated amortization	(3,370)	(103)	(2,900)	(6,373)		
	9,781	120	1,115	11,016		

	Parent company					
	Concessions (i)	Right of use (i)	Software (i)	Total		
Balance at December 31, 2014	5,876	129	1,462	7,467		

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

Additions	1,073		266	1,339
Disposals	(48)			(48)
Amortization	(242)	(4)	(253)	(499)
Balance at June 30, 2015	6,659	125	1,475	8,259
Cost	10,078	223	3,868	14,169
Accumulated amortization	(3,419)	(98)	(2,393)	(5,910)
	6,659	125	1,475	8,259

<sup>(</sup>i) Finite useful life.

<sup>(</sup>ii) Refers mainly duplication the Carajás Railroad.