Vale S.A. Form 6-K July 27, 2017 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

July, 2017

Vale S.A.

Avenida das Américas, No. 700 22640-100 Rio de Janeiro, RJ, Brazil

(Address of principal executive office)

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

(Check One) Form 20-F x Form 40-F o
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1)
(Check One) Yes o No x
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7)
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Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.
(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-

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Interim Financial Statements

June 30, 2017

IFRS in US\$

Vale S.A. Interim Financial Statements

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Report of independent registered public accounting firm

To the Board of Directors and Stockholders of

Vale S.A.

Rio de Janeiro - RJ

We have reviewed the accompanying condensed consolidated balance sheet of Vale S.A. (the Company) and subsidiaries as of June 30, 2017, the related condensed consolidated statements of income, comprehensive income and cash flows for the three and six-month periods ended on June 30, 2017 and 2016, and the related condensed consolidated statement of changes in equity for the six-month periods ended on June 30, 2017 and 2016. These condensed consolidated financial statements are the responsibility of the Company s management.

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

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

We have previously audited, in accordance with standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of Vale S.A. and subsidiaries as of December 31, 2016 and the related consolidated statements of income, comprehensive income, changes in equity and cash flows for the year then ended (not presented herein); and in our report dated February 22, 2017, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying condensed consolidated balance sheet as of December 31, 2016, is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived.

KPMG Auditores Independentes

Rio de Janeiro, Brazil

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.

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Consolidated Income Statement

In millions of United States dollars, except earnings per share data

		Three month period ended June 30,		Six month pe June	
	Notes	2017	2016 (i)	2017	2016 (i)
Continuing operations					
Net operating revenue	3(c)	7,235	6,162	15,750	11,497
Cost of goods sold and services rendered	4(a)	(5,102)	(4,313)	(9,836)	(8,202)
Gross profit		2,133	1,849	5,914	3,295
Operating expenses					
Selling and administrative expenses	4(b)	(132)	(127)	(256)	(234)
Research and evaluation expenses	, ,	(80)	(72)	(145)	(127)
Pre operating and operational stoppage		(90)	(110)	(205)	(207)
Other operating expenses, net	4(c)	(88)	(142)	(165)	(178)
1 2 1	,	(390)	(451)	(771)	(746)
Impairment and other results on non-current assets	12 and 15	(220)	(66)	292	(66)
Operating income		1,523	1,332	5,435	2,483
Financial income	5	458	3,889	1,398	7,139
Financial expenses	5	(1,797)	(1,814)	(3,350)	(3,653)
Equity results in associates and joint ventures	13	(24)	190	49	345
Impairment and other results in associates and joint ventures	17	(34)	(1,113)	(95)	(1,113)
Income before income taxes	17	126	2,484	3,437	5,201
Income taxes	6				
Current tax	U	(69)	(413)	(570)	(754)
Deferred tax		118	(929)	(104)	(1,536)
Deferred tax		49	(1,342)	(674)	(2,290)
		47	(1,342)	(074)	(2,290)
Net income from continuing operations		175	1,142	2,763	2,911
Net income attributable to noncontrolling interests		31	15	46	14
Net income from continuing operations attributable to					
Vale s stockholders		144	1,127	2,717	2,897
Discontinued operations	11				
Loss from discontinued operations	11	(125)	(21)	(207)	(10)
Net income attributable to noncontrolling interests		3	(21)	4	5
Loss from discontinued operations attributable to Vale s				,	3
stockholders		(128)	(21)	(211)	(15)
Net income		50	1,121	2,556	2,901
Tet meome		30	1,141	4,550	2,701

Net income attributable to noncontrolling interests		34	15	50	19
Net income attributable to Vale s stockholders		16	1,106	2,506	2,882
Earnings per share attributable to Vale s stockholders:					
Basic and diluted earnings per share:	7				
Preferred share (US\$)			0.21	0.49	0.56
Common share (US\$)			0.21	0.49	0.56

⁽i) Period restated according to Note 11.

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

Consolidated Statement of Comprehensive Income

In millions of United States dollars

	Three month period 30,	d ended June	Six month period en	ded June 20
	2017	2016	2017	2016
Net income	50	1,121	2,556	2,901
Other comprehensive income:		_,	_,= =	_,, , , _
Items that will not be reclassified subsequently to				
the income statement				
Cumulative translation adjustments	(1,753)	3,861	(639)	7,107
Retirement benefit obligations	(283)	(183)	(313)	(268)
Tax recognized within other comprehensive income	88	55	95	82
Total items that will not be reclassified				
subsequently to the income statement	(1,948)	3,733	(857)	6,921
Items that may be reclassified subsequently to the				
income statement				
Cumulative translation adjustments	1,308	(2,077)	691	(3,678)
Cash flow hedge				6
Net investments hedge	(392)		(128)	
Equity results in associates and joint ventures, net of				
taxes		5		5
Transfer of realized results to net income, net of				
taxes		(75)		(78)
Tax recognized within other comprehensive income	78	7	(29)	(142)
Total of items that may be reclassified				
subsequently to the income statement	994	(2,140)	534	(3,887)
Total comprehensive income (loss)	(904)	2,714	2,233	5,935
Comprehensive income attributable to				
noncontrolling interests	4	85	41	153
Comprehensive income (loss) attributable to				
Vale s stockholders	(908)	2,629	2,192	5,782

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

Consolidated Statement of Cash Flows

In millions of United States dollars

	Three month period e 2017	nded June 30, 2016 (i)	Six month period en 2017	nded June 30, 2016 (i)
Cash flow from operating activities:		· ·		()
Income before income taxes from continuing				
operations	126	2,484	3,437	5,201
Continuing operations adjustments for:				
Equity results in associates and joint ventures	24	(190)	(49)	(345)
Impairment and other results on non-current assets	220	66	(292)	66
Impairment and other results in associates and joint				
ventures	34	1,113	95	1,113
Depreciation, amortization and depletion	904	839	1,812	1,622
Financial results, net	1,339	(2,075)	1,952	(3,486)
Changes in assets and liabilities:				
Accounts receivable	1,380	78	1,678	(914)
Inventories	(223)	28	(444)	(15)
Suppliers and contractors	244	342	326	26
Payroll and related charges	199	39	(43)	43
Other assets and liabilities, net	(162)	311	(331)	403
	4,085	3,035	8,141	3,714
Interest on loans and borrowings paid	(412)	(362)	(927)	(821)
Derivatives paid, net (note 20)	(3)	(353)	(110)	(863)
Interest on participative stockholders debentures				
paid	(70)	(37)	(70)	(37)
Income taxes	(37)	(114)	(405)	(254)
Income taxes - Settlement program	(120)	(100)	(241)	(188)
Net cash provided by operating activities from				
continuing operations	3,443	2,069	6,388	1,551
Net cash provided by operating activities from				
discontinued operations	2	50	94	54
Net cash provided by operating activities	3,445	2,119	6,482	1,605
Cash flow from investing activities:				
Financial investments redeemed (invested)	34	(112)	(19)	(23)
Loans and advances - Net receipts (payments)	(100)	,	(244)	(3)
Additions to investments	(361)	(136)	(370)	(226)
Additions to property, plant and equipment and	(/	()	(= , =)	(-,
intangible (note 3(b))	(890)	(1,164)	(1,997)	(2,491)
Proceeds from disposal of assets and investments	()	() - /	(, ,	
(note 12)	8	12	523	24
Dividends and interest on capital received from				
associates and joint ventures	82	114	82	115
Others investments activities	(19)	(21)	(21)	(46)

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Net cash used in investing activities from				
continuing operations	(1,246)	(1,307)	(2,046)	(2,650)
Net cash used in investing activities from	(1,240)	(1,507)	(2,040)	(2,030)
discontinued operations	(81)	(58)	(144)	(105)
Net cash used in investing activities	(1,327)	(1,365)	(2,190)	(2,755)
The cash used in investing activities	(1,521)	(1,505)	(2,170)	(2,733)
Cash flow from financing activities:				
Loans and borrowings				
Additions	300	1,433	1,450	4,633
Repayments	(1,852)	(1,808)	(2,970)	(2,962)
Transactions with stockholders:				
Dividends attributed to stockholders	(1,454)		(1,454)	
Dividends and interest on capital paid to				
noncontrolling interest	(5)	(71)	(8)	(75)
Transactions with noncontrolling stockholders (note				
12)			255	(17)
Net cash provided by (used in) financing activities				
from continuing operations	(3,011)	(446)	(2,727)	1,579
Net cash provided by (used in) financing activities				
from discontinued operations	34	(4)		(5)
Net cash provided by (used in) financing activities	(2,977)	(450)	(2,727)	1,574
	(0 = 0)	20.4	4 = 4 =	
Increase (decrease) in cash and cash equivalents	(859)	304	1,565	424
Cash and cash equivalents in the beginning of the	. .			
period	6,716	3,779	4,262	3,591
Effect of exchange rate changes on cash and cash	(127)	477	(02)	115
equivalents	(137)	47	(93)	115
Cash and cash equivalents from disposals			(1.4)	
subsidiaries	5 530	4 120	(14)	4.120
Cash and cash equivalents at end of the period	5,720	4,130	5,720	4,130
Non-cash transactions:				
Additions to property, plant and equipment -				
capitalized loans and borrowing costs	83	213	186	390

⁽i) Period restated according to Note 11.

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

Consolidated Statement of Financial Position

In millions of United States dollars

	Notes	June 30, 2017	December 31, 2016
Assets			
Current assets			
Cash and cash equivalents	16	5,720	4,262
Accounts receivable	8	1,709	3,663
Other financial assets	10	2,193	363
Inventories	9	3,864	3,349
Prepaid income taxes		217	159
Recoverable taxes		1,302	1,625
Others		427	557
		15,432	13,978
Non-current assets held for sale	11	4,430	8,589
		19,862	22,567
Non-current assets			
Judicial deposits	22(c)	939	962
Other financial assets	10	3,334	628
Prepaid income taxes		548	527
Recoverable taxes		733	727
Deferred income taxes	6(a)	7,095	7,343
Others		319	274
		12,968	10,461
Investments in associates and joint ventures	13	3,605	3,696
Intangibles	14	7,211	6,871
Property, plant and equipment	15	54,659	55,419
		78,443	76,447
Total assets		98,305	99,014
Liabilities			
Current liabilities			
Suppliers and contractors		3,746	3,630
Loans and borrowings	16	2,063	1,660
Other financial liabilities	10	876	1,086
Taxes payable		641	657
Provision for income taxes		257	171
Liabilities related to associates and joint ventures	17	295	292
Provisions	21	834	952
Dividends and interest on capital			798
Others		781	896
		9,493	10,142
Liabilities associated with non-current assets held for sale	11	1,089	1,090
		2,507	-

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		10,582	11,232
Non-current liabilities		,	,
Loans and borrowings	16	25,789	27,662
Other financial liabilities	10	3,144	2,127
Taxes payable		4,862	4,961
Deferred income taxes	6(a)	1,565	1,700
Provisions	21	6,053	5,748
Liabilities related to associates and joint ventures	17	724	785
Deferred revenue - Gold stream		1,984	2,090
Others		1,701	1,685
		45,822	46,758
Total liabilities		56,404	57,990
Stockholders equity	24		
Equity attributable to Vale s stockholders		40,471	39,042
Equity attributable to noncontrolling interests		1,430	1,982
Total stockholders equity		41,901	41,024
Total liabilities and stockholders equity		98,305	99,014

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

Statement of Changes in Equity

In millions of United States dollars

	Share capital	Results on conversion of shares	Results from operation with noncontrolling interest	Profit reserves	Treasury stocks	Unrealized fair value gain (losses)	Cumulative translation adjustments	Retained earnings	Equity attributable to Vale s stockholders	Equity attributable to noncontrolling interests	Total stockholders equity
Balance at											
December 31, 2016	61,614	(152)	(699)	4,203	(1.477)	(1,147)	(23,300)		39,042	1,982	41,024
Net income	01,014	(152)	(099)	4,203	(1,477)	(1,147)	(23,300)	2,506	2,506	1,982	2,556
Other								2,300	2,300	30	2,330
comprehensive											
income:											
Retirement											
benefit											
obligations						(218)			(218)		(218)
Net investments						,			,		, ,
hedge							(84)		(84)		(84)
Translation							·		•		
adjustments				(63))	5	149	(103)	(12)	(9)	(21)
Transactions											
with											
stockholders:											
Dividends and											
interest on											
capital of Vale s											
stockholders				(658))				(658)		(658)
Dividends of											
noncontrolling										(105)	(105)
interest										(107)	(107)
Acquisitions											
and disposal of											
participation of											
noncontrolling interest (note											
12)			(105)						(105)	(512)	(617)
Capitalization of			(103)						(103)	(312)	(017)
noncontrolling											
interest											
advances										26	26
Balance at											
June 30, 2017	61,614	(152)	(804)	3,482	(1,477)	(1,360)	(23,235)	2,403	40,471	1,430	41,901

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	Share capital	Results on conversion of shares	Results from operation with noncontrolling interest	Profit reserves	Treasury stocks	Unrealized fair value gain (losses)	Cumulative translation adjustments	Retained earnings	Equity attributable to Vale s stockholders	Equity attributable to noncontrolling interests	Total stockholders equity
Balance at											
December 31, 2015	61,614	(152)	(702)	985	(1,477)	(992)	(25,687)		33,589	2,115	35,704
Net income	01,014	(132)	(102)	703	(1,4//)	(772)	(23,007)	2,882	2,882	19	2,901
Other								_,00_	_,00_		_,, 01
comprehensive											
income:											
Retirement											
benefit											
obligations						(186)			(186)		(186)
Cash flow hedge						7			7		7
Translation											
adjustments				213		(97)	2,762	201	3,079	134	3,213
Transactions											
with											
stockholders:											
Dividends of											
noncontrolling interest										(172)	(172)
Capitalization of										(172)	(172)
noncontrolling											
interest											
advances										16	16
Balance at											
June 30, 2016	61,614	(152)	(702)	1,198	(1,477)	(1,268)	(22,925)	3,083	39,371	2,112	41,483

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

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Selected Notes to the Interim Financial Statements

Expressed in millions of United States dollar, unless otherwise stated

1. Corporate information

Vale S.A. (the Parent Company) is a public company headquartered in the city of Rio de Janeiro, Brazil with securities traded on the stock exchanges of São Paulo - BM&F BOVESPA (Vale3 and Vale5), New York - NYSE (VALE and VALE.P), Paris - NYSE Euronext (Vale3 and Vale5) and Madrid LATIBEX (XVALO and XVALP).

Vale and its direct and indirect subsidiaries (Vale or Company) are global 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 Company also produces copper, metallurgical and thermal coal, manganese ore, ferroalloys, platinum group metals, gold, silver and cobalt. The information by segment is presented in note 3.

2. Basis for preparation of the interim financial statements

a) Statement of compliance

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

b) Basis of presentation

The interim financial statements have been prepared under the historical cost convention as adjusted to reflect: (i) the fair value of financial instruments measured at fair value through the 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, 2016. The accounting policy for recognizing and measuring income taxes in the interim period is described in note 6. 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, 2016.

The comparative information for the period ended June 30, 2016 was restated for the purposes of applying IFRS 5 Non-current assets held for sale and discontinued operations after approval by the Board of Directors of the sale of the fertilizers assets, as presented in Note 11.

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

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

			Average rate for the						
	Closing rate		Three month	period ended	Six month period ended				
		December 31,							
	June 30, 2017	2016	June 30, 2017	June 30, 2016	June 30, 2017	June 30, 2016			
US Dollar (US\$)	3.3082	3.2591	3.2174	3.5076	3.1807	3.7017			
Canadian dollar (CAD)	2.5485	2.4258	2.3937	2.7217	2.3847	2.7809			
Australian dollar (AUD)	2.5394	2.3560	2.4154	2.6153	2.3986	2.7142			
Euro (EUR or)	3.7750	3.4384	3.5480	3.9624	3.4479	4.1288			

Subsequent events were evaluated through July 26, 2017, which is the date the interim financial statements were approved by the Board of Directors.

c) Accounting standards issued but not yet effective

The standards and interpretations issued by IASB relevant to the Company but not yet effective are the same as those adopted when preparing the financial statements for the year ended December 31, 2016.

3. Information by business segment and by geographic area

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

a) 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 excluding (i) the depreciation, depletion and amortization, (ii) results on measurement or sales of non-current assets, (iii) impairment, (iv) onerous contracts and plus (v) dividends received from associates and joint ventures.

Three	month	norical	bobee	Inno	20	2017
1 nree	month	perioa	enaea	.june	JU,	2017

	Net operating revenue	Cost of goods sold and services rendered	Sales, administrative and other operating expenses	Research and evaluation	Pre operating and operational stoppage	Dividends received from associates and joint ventures	Adjusted EBITDA
Ferrous							
minerals							
Iron ore	3,544	(1,885)	(94)	(23)	(40)		1,502
Iron ore Pellets	1,331	(712)	(10)	(5)	(1)	37	640
Ferroalloys and							
manganese	117	(81)	(2)		(1)		33
Other ferrous							
products and							
services	122	(77)	12				57
	5,114	(2,755)	(94)	(28)	(42)	37	2,232
Coal	481	(305)	(11)	(4)	(4)		157

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Base metals							
Nickel and other							
products	1,009	(818)	(32)	(11)	(12)		136
Copper	503	(247)	(4)	(2)			250
	1,512	(1,065)	(36)	(13)	(12)		386
Others	128	(125)	(57)	(35)	(2)	45	(46)
Total of							
continuing							
operations	7,235	(4,250)	(198)	(80)	(60)	82	2,729
Discontinued							
operations							
(Fertilizers)	401	(372)	(20)	(3)	(10)		(4)
Total	7,636	(4,622)	(218)	(83)	(70)	82	2,725

Three month	period	ended.	Iune 30.	. 2016

	Three month period ended June 30, 2016							
	Net operating revenue	Cost of goods sold and services rendered	Sales, administrative and other operating expenses	Research and evaluation	Pre operating and operational stoppage	Dividends received from associates and joint ventures	Adjusted EBITDA	
Ferrous minerals								
Iron ore	3,508	(1,652)	(150)	(16)	(34)		1,656	
Iron ore Pellets	868	(459)	(19)	(4)	(9)	60	437	
Ferroalloys and								
manganese	61	(53)	1		(3)		6	
Other ferrous								
products and								
services	104	(63)	(3)		(1)		37	
	4,541	(2,227)	(171)	(20)	(47)	60	2,136	
Coal	145	(236)	(6)	(3)	(10)		(110)	
Base metals								
Nickel and other								
products	1,050	(775)	(2)	(21)	(26)		226	
Copper	397	(237)	(9)	(1)	, ,		150	
**	1,447	(1,012)	(11)	(22)	(26)		376	
Others	29	(58)	(47)	(27)	(2)	54	(51)	
Total of continuing								
operations	6,162	(3,533)	(235)	(72)	(85)	114	2,351	
Discontinued operations								
(Fertilizers)	464	(394)	(29)	(6)	(6)	3	32	
Total	6,626	(3,927)	(264)	(78)	(91)	117	2,383	

Six month period ended June 30, 2017

	Net operating revenue	Cost of goods sold and services rendered	Sales, administrative and other operating expenses	Research and evaluation	Pre operating and operational stoppage	Dividends received from associates and joint ventures	Adjusted EBITDA
Ferrous minerals							
Iron ore	8,370	(3,562)	(92)	(39)	(81)		4,596
Iron ore Pellets	2,790	(1,364)	(22)	(8)	(2)	37	1,431
Ferroalloys and							
manganese	203	(125)	(4)		(4)		70
Other ferrous							
products and							
services	248	(153)	8	(1)			102
	11,611	(5,204)	(110)	(48)	(87)	37	6,199
Coal	805	(553)	(23)	(7)	(4)		218
Base metals							
Nickel and other	0.141	(1.600)	(75)	(20)	(50)		216
products	2,141	(1,680)	(75)	(20)	(50)		316
Copper	968	(477)	(7)	(4)	(50)		480
	3,109	(2,157)	(82)	(24)	(50)		796
Others	225	(224)	(153)	(66)	(3)	45	(176)
Total of	223	(224)	(155)	(00)	(3)	43	(170)
continuing							
operations	15,750	(8,138)	(368)	(145)	(144)	82	7,037
operations	13,750	(0,130)	(500)	(145)	(144)	02	7,037
Discontinued operations							
(Fertilizers)	771	(711)	(35)	(5)	(21)		(1)
Total	16,521	(8,849)	(403)	(150)	(165)	82	7,036

Six month period ended June 30, 2016

	Net operating revenue	Cost of goods sold and services rendered	Sales, administrative and other operating expenses	Research and evaluation	Pre operating and operational stoppage	Dividends received from associates and joint ventures	Adjusted EBITDA
Ferrous minerals							
Iron ore	6,425	(2,961)	(306)	(27)	(66)		3,065
Iron ore Pellets	1,621	(896)	(35)	(4)	(13)	60	733
Ferroalloys and							
manganese	108	(99)	3		(5)		7
Other ferrous							
products and							
services	191	(122)	2		(2)		69
	8,345	(4,078)	(336)	(31)	(86)	60	3,874
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Coal	299	(529)	43	(5)	(11)		(203)
Base metals							
Nickel and other							
products	2,050	(1,539)	(26)	(35)	(58)		392
Copper	750	(429)	(6)	(2)			313
	2,800	(1,968)	(32)	(37)	(58)		705
Others	53	(103)	(39)	(54)	(2)	55	(90)
Total of continuing							
operations	11,497	(6,678)	(364)	(127)	(157)	115	4,286
•	,	` , ,	` ´	, ,	` ´		,
Discontinued operations							
(Fertilizers)	848	(690)	(40)	(11)	(8)	3	102
Total	12,345	(7,368)	(404)	(138)	(165)	118	4,388

Adjusted EBITDA is reconciled to net income (loss) as follows:

From Continuing operations

	Three month period of	ended June 30,	Six month period ended June 30,		
	2017	2016	2017	2016	
Adjusted EBITDA from continuing operations	2,729	2,351	7,037	4,286	
Depreciation, depletion and amortization	(904)	(839)	(1,812)	(1,622)	
Dividends received from associates and joint					
ventures	(82)	(114)	(82)	(115)	
Impairment and other results on non-current assets	(220)	(66)	292	(66)	
Operating income	1,523	1,332	5,435	2,483	
Financial results, net	(1,339)	2,075	(1,952)	3,486	
Equity results in associates and joint ventures	(24)	190	49	345	
Impairment and other results in associates and joint					
ventures	(34)	(1,113)	(95)	(1,113)	
Income taxes	49	(1,342)	(674)	(2,290)	
Net income from continuing operations	175	1,142	2,763	2,911	
Net income attributable to noncontrolling interests	31	15	46	14	
Net income attributable to Vale s stockholders	144	1,127	2,717	2,897	

From Discontinued operations

	Three month period of 2017	ended June 30, 2016	Six month period en 2017	nded June 30, 2016
Adjusted EBITDA from discontinued operations	(4)	32	(1)	102
Depreciation, depletion and amortization		(88)		(155)
Dividends received from associates and joint				
ventures		(3)		(3)
Impairment of non-current assets (note 11a)	(266)		(377)	
Operating loss	(270)	(59)	(378)	(56)
Financial results, net	(6)	16	(10)	30
Equity results in associates and joint ventures				1
Income taxes	151	22	181	15
Loss from discontinued operations	(125)	(21)	(207)	(10)
Net income attributable to noncontrolling interests	3		4	5
Loss attributable to Vale s stockholders	(128)	(21)	(211)	(15)

b) Assets by segment

		June 30, 2017		Three mont	h period ended June	Six month 30, 2017	period ended
	Product inventory	Investments in associates and joint ventures	Property, plant and equipment and intangible (i)	Additions to property, plant and equipment and intangible (ii)	Depreciation, depletion and amortization (iii)	Additions to property, plant and equipment and intangible (ii)	Depreciation, depletion and amortization (iii)
Ferrous							
minerals	1,641	1,869	34,742	620	427	1,450	844
Coal	94	301	1,793	15	74	71	179
Base							
metals	1,109	13	23,189	251	397	462	778
Others	26	1,422	2,146	4	6	14	11
Total	2,870	3,605	61,870	890	904	1,997	1,812

				Three month	period ended	Six month p	eriod ended
		December 31, 2016			June 30), 2016	
	Product inventory	Investments in associates and joint ventures	Property, plant and equipment and intangible (i)	Additions to property, plant and equipment and intangible (ii)	Depreciation, depletion and amortization (iii)	Additions to property, plant and equipment and intangible (ii)	Depreciation, depletion and amortization (iii)
Ferrous minerals	1,134	1,808	34,834	766	381	1,683	728

Coal	126	285	1,907	157	15	290	38
Base							
metals	1,110	12	23,372	233	438	502	845
Others	3	1,591	2,177	8	5	16	11
Total	2,373	3,696	62,290	1,164	839	2,491	1,622

⁽i) Goodwill is allocated mainly in iron ore and nickel segments in the amount of US\$1,227 and US\$1,893 in June 30, 2017 and US\$1,246 and US\$1,835 in December 31, 2016, respectively.

⁽ii) Includes only cash effect.

⁽iii) Refers to amounts recognized in the income statement.

c) Net operating revenue by geographic area

Three month	neriod	habna	June 30	2017
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	Ferrous minerals	Coal	Base metals	Others	Total
Americas, except United States and Brazil	138	Coai	190	55	383
United States of America	121		189	13	323
Europe	689	111	519	14	1,333
Middle East/Africa/Oceania	354	37	3		394
Japan	440	46	90		576
China	2,469		85		2,554
Asia, except Japan and China	300	246	391		937
Brazil	603	41	45	46	735
Net operating revenue	5,114	481	1,512	128	7,235

Three month period ended June 30, 2016

	r errous minerals	Coal	Base metals	Others	Total
Americas, except United States and Brazil	74	11	280		365
United States of America	53		177		230
Europe	593	22	495		1,110
Middle East/Africa/Oceania	287	22	4		313
Japan	300	31	74		405
China	2,581	6	113		2,700
Asia, except Japan and China	229	53	262		544
Brazil	424		42	29	495
Net operating revenue	4,541	145	1,447	29	6,162

Six month period ended June 30, 2017

	Ferrous minerals	Coal	Base metals	Others	Total
Americas, except United States and Brazil	280		494	55	829
United States of America	174		375	58	607
Europe	1,579	200	1,024	30	2,833
Middle East/Africa/Oceania	781	88	6		875
Japan	830	79	178		1,087
China	6,127		245		6,372
Asia, except Japan and China	555	347	702		1,604
Brazil	1,285	91	85	82	1,543
Net operating revenue	11,611	805	3,109	225	15,750

Six month period ended June 30, 2016

	Ferrous				
	minerals	Coal	Base metals	Others	Total
Americas, except United States and Brazil	165	14	558		737

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United States of America	87		348	4	439
Europe	1,078	29	918		2,025
Middle East/Africa/Oceania	451	41	13		505
Japan	554	65	126		745
China	4,853	31	270		5,154
Asia, except Japan and China	385	119	507		1,011
Brazil	772		60	49	881
Net operating revenue	8,345	299	2,800	53	11,497

4. Costs and expenses by nature

a) Cost of goods sold and services rendered

	Three month period	ended June 30,	Six month period ended June 30,		
	2017	2016	2017	2016	
Personnel	556	526	1,103	983	
Materials and services	899	931	1,681	1,551	
Fuel oil and gas	309	292	618	581	
Maintenance	753	633	1,476	1,239	
Energy	232	166	447	309	
Acquisition of products	159	146	323	229	
Depreciation and depletion	852	780	1,698	1,524	
Freight	771	611	1,430	1,111	
Others	571	228	1,060	675	
Total	5,102	4,313	9,836	8,202	
Cost of goods sold	4,946	4,198	9,541	7,980	
Cost of services rendered	156	115	295	222	
Total	5,102	4,313	9,836	8,202	

b) Selling and administrative expenses

	Three month period	ended June 30,	Six month period ended June 30,		
	2017	2016	2017	2016	
Personnel	62	54	116	101	
Services	17	16	29	27	
Depreciation and amortization	22	32	51	54	
Taxes and rents	4	3	11	10	
Selling expenses	19	9	32	15	
Others	8	13	17	27	
Total	132	127	256	234	

c) Others operational expenses (incomes), net

Three month period ended June 30, 2017 2016

Six month period ended June 30, 2017 2016

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Provision for litigation	17	57	29	106
Profit sharing program	30		69	
Disposals (reversals) of materials and inventories	4	(1)	7	(9)
Others	37	86	60	81
Total	88	142	165	178

5. Financial result

	Three month period ended June 30,		Six month period ended June 30,	
	2017	2016	2017	2016
Financial expenses				
Loans and borrowings gross interest	(450)	(451)	(953)	(862)
Capitalized loans and borrowing costs	83	213	186	390
Derivative financial instruments	(160)	(166)	(266)	(224)
Indexation and exchange rate variation (a)	(864)	(1,051)	(1,196)	(2,218)
Participative stockholders debentures	(87)	(86)	(499)	(202)
Expenses of REFIS	(108)	(129)	(234)	(243)
Others	(211)	(144)	(388)	(294)
	(1,797)	(1,814)	(3,350)	(3,653)
Financial income				
Short-term investments	52	23	88	62
Derivative financial instruments	69	925	384	1,423
Indexation and exchange rate variation (b)	273	2,934	834	5,629
Others	64	7	92	25
	458	3,889	1,398	7,139
Financial results, net	(1,339)	2,075	(1,952)	3,486
Summary of indexation and exchange rate				
variation				
Loans and borrowings	(740)	2,781	(241)	5,419
Others	149	(898)	(121)	(2,008)
Net (a) + (b)	(591)	1,883	(362)	3,411

As from January 1, 2017, the Company started to apply net investment hedge accounting in foreign operation, for more information see note 16.

6. Income taxes

a) Deferred income tax assets and liabilities

Changes in deferred tax are as follows:

Assets Liabilities Tota	ets	Liabilities	Total
-------------------------	-----	-------------	-------

Balance at March 31, 2017	7,127	1,677	5,450
Effect in income statement	65	(53)	118
Translation adjustment	(178)	26	(204)
Other comprehensive income	81	(85)	166
Balance at June 30, 2017	7,095	1,565	5,530

	Assets	Liabilities	Total
Balance at March 31, 2016	7,675	1,817	5,858
Effect in income statement	(940)	(11)	(929)
Transfers between asset and liabilities	59	59	
Translation adjustment	484	(75)	559
Other comprehensive income	11	(51)	62
Balance at June 30, 2016	7,289	1,739	5,550

	Assets	Liabilities	Total
Balance at December 31, 2016	7,343	1,700	5,643
Effect in income statement	(186)	(82)	(104)
Translation adjustment	(39)	36	(75)
Other comprehensive income	(23)	(89)	66
Balance at June 30, 2017	7,095	1,565	5,530

	Assets	Liabilities	Total
Balance at December 31, 2015	7,904	1,670	6,234
Effect in income statement	(1,591)	(55)	(1,536)
Transfers between asset and liabilities	144	144	
Translation adjustment	961	49	912
Other comprehensive income	(129)	(69)	(60)
Balance at June 30, 2016	7,289	1,739	5,550

b) Income tax reconciliation Income statement

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

	Three month period ended June 30,		Six month period en	nded June 30,
	2017	2016	2017	2016
Income before income taxes	126	2,484	3,437	5,201
Income taxes at statutory rates - 34%	(43)	(845)	(1,169)	(1,768)
Adjustments that affect the basis of taxes:				
Income tax benefit from interest on stockholders				
equity	126		252	
Tax incentives	1	95	179	98
Equity results	(8)	63	17	120
Unrecognized tax losses of the period	(92)	(164)	(269)	(349)
Gain on sale of subsidiaries (note 12)			175	
Other results in associates and joint ventures		(353)		(353)
Others	65	(138)	141	(38)
Income taxes	49	(1,342)	(674)	(2,290)

Income tax expense is recognized at an amount determined by the estimated tax rate, adjusted for the tax effect of certain items recognized in full in the interim period. Therefore, the effective tax rate in the interim financial statement may differ from management s estimate of the effective tax rate for the annual financial statement.

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 associates from 2003 to 2012.

At June 30, 2017, the balance of US\$5,332 (US\$470 as current and US\$4,862 as non-current) is due in 136 remaining monthly installments, bearing interest at the SELIC rate of 10.25% per year.

7. Basic and diluted earnings per share

The values of basic and diluted earnings per share are as follows:

	Three month period a 2017	ended June 30, 2016	Six month period er 2017	nded June 30, 2016
Basic and diluted earnings per share from				
continuing operations:				
Income available to preferred stockholders	55	430	1,037	1,106
Income available to common stockholders	89	697	1,680	1,791
Total	144	1,127	2,717	2,897
Basic and diluted loss per share from				
discontinued operations:				
Loss available to preferred stockholders	(49)	(8)	(81)	(6)
Loss available to common stockholders	(79)	(13)	(130)	(9)
Total	(128)	(21)	(211)	(15)
Basic and diluted earnings per share:				
Income available to preferred stockholders	6	422	956	1,100
Income available to common stockholders	10	684	1,550	1,782
Total	16	1,106	2,506	2,882
10001	10	1,100	2,000	2,002
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 from				
continuing operations:	0.00	0.01	0.52	0.56
Preferred share (US\$)	0.02	0.21	0.53	0.56
Common share (US\$)	0.02	0.21	0.53	0.56
Basic and diluted loss per share from				
discontinued operations:	(0.00)		(0.04)	
Preferred share (US\$)	(0.02)		(0.04)	
Common share (US\$)	(0.02)		(0.04)	
Basic and diluted earnings per share:		0.01	0.40	0.74
Preferred share (US\$)		0.21	0.49	0.56
Common share (US\$)		0.21	0.49	0.56

The Company does not hold dilutive potential ordinary shares outstanding that could result in dilution of earnings (loss) per share.

8. Accounts receivable

	June 30, 2017	December 31, 2016
Trade receivables	1,770	3,723
Impairment of trade receivables	(61)	(60)
	1,709	3,663
Trade receivables related to the steel sector - %	77.17%	83.44%

	Three month period en 2017	nded June 30, 2016	Six month period 2017	d ended June 30, 2016
Impairment of trade receivables recorded in the income				
statement	(4)	(2)	(4)	(3)

No individual customer represents over 10% of receivables or revenues.

9. Inventories

	June 30, 2017	December 31, 2016
Product inventory	2,870	2,373
Consumable inventory	994	976
Total	3,864	3,349

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

10. Other financial assets and liabilities

	C	urrent	Non-Current		
	June 30, 2017	June 30, 2017 December 31, 2016		December 31, 2016	
Other financial assets					
Financial investments	10	18			
Loans			180	180	
Derivative financial instruments (note 20)	159	274	495	446	
Related parties (note 25)	2,024	71	2,659	2	

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	2,193	363	3,334	628
Other financial liabilities				
Derivative financial instruments (note 20)	362	414	975	1,225
Related parties (note 25)	514	672	994	127
Participative stockholders debentures			1,175	775
	876	1,086	3,144	2,127

11. Non-current assets and liabilities held for sale and discontinued operations

		June 30, 2017			December	31, 2016	
	Fertilizers assets	Shipping assets	Total	Fertilizers assets	Nacala	Shipping assets	Total
Assets							
Accounts receivable	84		84	86	6		92
Inventories	453		453	387	2		389
Other current assets	102		102	107	114		221
Investments in associates and joint ventures	89		89	90			90
Property, plant and equipment and							
Intangible	2,467	357	2,824	2,694	4,064	357	7,115
Other non-current assets	878		878	679	3		682
Total assets	4,073	357	4,430	4,043	4,189	357	8,589
Liabilities							
Suppliers and contractors	239		239	280	41		321
Other current liabilities	229		229	192	13		205
Other non-current liabilities	621		621	559	5		564
Total liabilities	1,089		1,089	1,031	59		1,090
Net non-current assets held for sale	2,984	357	3,341	3,012	4,130	357	7,499

a) Discontinued operations (Fertilizers assets)

In December 2016, the Company entered into an agreement with The Mosaic Company (Mosaic) to sell (i) the phosphate assets located in Brazil, except those mainly related to nitrogen assets located in Cubatão (Brazil); (ii) the control of Compañia Minera Miski Mayo S.A.C., in Peru; (iii) the potassium assets located in Brazil; and (iv) the potash projects in Canada.

In December 2016, the agreed transaction price was US\$2.5 billion, of which US\$1.25 billion will be paid in cash and US\$1.25 billion with 42.3 million common shares to be issued by Mosaic, which at the agreement signature date represented around 11% of Mosaic s total outstanding common shares.

The spin-off of the nitrogen assets located in Cubatão from the remaining Vale Fertilizantes S.A. s assets was concluded in July 2017 (subsequent event). The completion of this milestone was one of the requirement for the conclusion of the transaction, which is expected to be completed until the end of 2017 and, still, is subject to the fulfillment of usual precedent conditions, including the approval of the Administrative Council of Economic Defense (CADE) and other antitrust authorities; and other operational and regulatory matters.

The fertilizer segment, including Cubatão, is presented as a discontinued operation and the related assets and liabilities were classified as assets and liabilities held for sale.

On June 30, 2017, the net assets of the fertilizers segment were adjusted to reflect the fair value less cost to sell and a loss of US\$377 was recognized in the income statement as Impairment of non-current assets from discontinued operations for the six-month period ended June 30, 2017. The loss derived basically from the variation of the market value of Mosaic shares that will be received on the closing.

The results for the period and the cash flows of discontinued operations of the Fertilizer segment for the period ended June 30, 2017 are presented as follows, and includes the corresponding restated period ended June 30, 2016, as described in note 2(b).

	Three month period e	nded June 30,	Six month period ended June 30,	
	2017	2016	2017	2016
Discontinued operations				
Net operating revenue	401	464	771	848
Cost of goods sold and services rendered	(371)	(482)	(710)	(842)
Operating expenses	(34)	(41)	(62)	(62)
Impairment of non-current assets	(266)		(377)	
Operating loss	(270)	(59)	(378)	(56)

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Financial Results, net	(6)	16	(10)	30
Equity results in associates and joint ventures				1
Loss before income taxes	(276)	(43)	(388)	(25)
Income taxes	151	22	181	15
Loss from discontinued operations	(125)	(21)	(207)	(10)
Net income attributable to noncontrolling interests	3		4	5
Loss attributable to Vale s stockholders	(128)	(21)	(211)	(15)

	Three month period ended June 30,		Six month period ended June 30,	
	2017	2016	2017	2016
Discontinued operations				
Cash flow from operating activities				
Loss before income taxes	(276)	(43)	(388)	(25)
Adjustments:				
Equity results in associates and joint ventures				(1)
Depreciation, amortization and depletion		88		155
Impairment of non-current assets	266		377	
Increase (decrease) in assets and liabilities	12	5	105	(75)
Net cash provided by operating activities	2	50	94	54
Cash flow from investing activities				
Additions to property, plant and equipment	(81)	(68)	(144)	(107)
Others		10		2
Net cash used in investing activities	(81)	(58)	(144)	(105)
Cash flow from financing activities				
Loans and borrowings				
Additions (Repayments)	34	(4)		(5)
Net cash provided by (used in) financing activities	34	(4)		(5)
Net cash used in discontinued operations	(45)	(12)	(50)	(56)
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	18			

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12. Acquisitions and divestitures
a) Coal - Nacala Logistic Corridor
In December 2014 and as amended in November 2016, the Company signed an agreement with Mitsui & Co., Ltd. (Mitsui) to transfer 50% of its stake of 66.7% in Nacala Logistic Corridor, which comprises entities that holds railroads and port concessions located in Mozambique and Malawi. Also, Mitsui committed to acquire 15% participation in the entity that owns Vale Moçambique, which hold the Moatize Coal Project.
In March 2017, the transaction was concluded, and consideration of US\$690 was received by Vale. After the completion of the transaction, the Company (i) holds 81% of Vale Moçambique and retains the control of the Moatize Coal Project and (ii) shares control of the Nacala Logistic Corridor structure (Nacala BV), with Mitsui.
Nacala Logistic Corridor is in negotiations for a project finance, which the completion is expected to occur during the course of 2017. Upon the completion an additional amount of US\$57 will be paid by Mitsui. Mitsui has certain rights, based on the execution of the project finance, to sell their participation in the Moatize Coal Project and Nacala BV, back to Vale, based on the original amounts and the same number of shares. The fair value of these put options is non-significant.
As a consequence of sharing control of Nacala BV, the Company:
(i) derecognized the assets and liabilities classified as held for sale in the total amount of US\$4,144, from which US\$4,063 refers to property, plant and equipment and intangibles;
(ii) derecognized US\$14 related to cash and cash equivalents;
(iii) recognized a gain of US\$504 in the income statement related to the sale and the re-measurement at fair value, of its remaining interest at Nacala BV based on the consideration received;
(iv) reclassified the gain related to cumulative translation adjustments to income statements in the amount of US\$11;

The result of the transaction regarding the assets from Nacala	s corridor was recognized in the income statement as	Impairment and other results
on non-current assets .		

The results of the transaction with the Moatize Coal Project was recognized in Results from operation with noncontrolling interest in the amount of US\$105, directly in Stockholders Equity.

The consideration received was recognized in the statement of cash flows in Proceeds from disposal of assets and investments in the amount of US\$435 and Transactions with noncontrolling stockholders in the amount of US\$255.

Due to deconsolidation of Nacala Logistic Corridor, Vale has after the transaction, outstanding loan balances with Nacala BV and Pangea Emirates Ltd stated as Related parties, as described in note 25. The use of proceeds of the project finance is expected to settle part of this debt.

b) Floating Transfer Stations (FTS)

In June 2017, the Company completed the sale of one of its Floating Transfer Stations in Philippines in the amount of US\$15. In this transaction, Vale recognized a loss of US\$55 as Impairment and other results on non-current assets .

13. Investments in associates and joint ventures

a) Changes during the period

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

		2017		2016				
	Associates	Joint ventures	Total	Associates	Joint ventures	Total		
Balance at March 31,	1,457	2,426	3,883	1,399	1,998	3,397		
Additions		2	2		136	136		
Translation adjustment	(49)	(90)	(139)	108	219	327		
Equity results in income statement	26	(50)	(24)	36	154	190		
Dividends declared	(34)	(83)	(117)	(4)	(83)	(87)		
Others				(2)	2			
Balance at June 30,	1,400	2,205	3,605	1,537	2,426	3,963		

		2017				
	Associates	Joint ventures	Total	Associates	Joint ventures	Total
Balance at January 1st,	1,437	2,259	3,696	1,323	1,617	2,940
Additions		33	33		219	219
Translation adjustment	(16)	(32)	(48)	207	379	586
Equity results in income statement	21	28	49	33	312	345
Equity results from discontinued						
operations				1		1
Dividends declared	(42)	(83)	(125)	(25)	(91)	(116)
Others				(2)	(10)	(12)
Balance at June 30,	1,400	2,205	3,605	1,537	2,426	3,963

The investments by segments are presented in note 3(b).

Investments in associates and joint ventures (continued)

Equity results in the income statement Dividends received Investments in associates affiliree month person under person per % voting joint ventures June 30. June 30. June 30. June 30. Associates and joint ventures % ownership capital June 30, 2017 December 31, 2016 2017 2016 2017 2016 2017 2016 2017 2016 Ferrous minerals 50.00 30 2 4 Baovale Mineração S.A. 50.00 26 (1)Companhia Coreano-Brasileira de 50.00 50.00 76 13 4 25 13 13 Pelotização 68 Companhia Hispano-Brasileira de Pelotização (i) 50.89 51.00 73 59 11 2 21 6 5 18 5 18 Companhia Ítalo-Brasileira 50.90 13 2 20 17 9 17 9 de Pelotização (i) 51.00 78 69 6 Companhia Nipo-Brasileira de Pelotização (i) 51.00 51.11 136 108 24 (4)46 7 15 20 15 20 503 488 22 MRS Logística S.A. 48.16 46.75 12 37 32 VLI S.A. 37.60 37.60 953 969 19 21 16 6 25.00 Zhuhai YPM Pellet Co. 25.00 20 21 1,869 1,808 104 37 159 75 37 60 37 60 Coal Henan Longyu Energy Resources Co., Ltd. 25.00 301 285 (9)25.00 6 16 301 285 6 (9)16 Base metals 25.00 25.00 Korea Nickel Corp. 13 12 (1)13 12 **(1) Others** Aliança Geração de Energia 55.00 55.00 576 582 8 19 15 22 11 22 11 22 S.A. (i) Aliança Norte Energia Participações S.A. (i) 51.00 51.00 160 148 (2)3 (3) California Steel Industries, Inc. 50.00 50.00 197 185 16 5 25 4 13 13 Companhia Siderúrgica do 381 230 Pecém 50.00 50.00 527 (131) 116 (142)Mineração Rio Grande do 95 Norte S.A. 40.00 40.00 129 32 21 32 15 1 34 21 Others 13 20 (28)(28)(7)1 1,422 1,591 (134) 153 (126)280 45 54 45 55 Total 3,605 3,696 (24)190 345 82 114 82 115

⁽i) Although the Company held majority of the voting capital, the entities are accounted under equity method due to the stockholders agreement where relevant decisions are shared with other parties.

14. Intangibles

Changes in intangibles are as follows:

	Goodwill	Concessions	Right of use	Software	Total
Balance at March 31, 2017	3,131	3,702	149	324	7,306
Additions		145		10	155
Disposals		(1)			(1)
Amortization		(40)		(36)	(76)
Translation adjustment	(9)	(153)		(11)	(173)
Balance at June 30, 2017	3,122	3,653	149	287	7,211
Cost	3,122	4,870	230	1,548	9,770
Accumulated amortization		(1,217)	(81)	(1,261)	(2,559)
Balance at June 30, 2017	3,122	3,653	149	287	7,211

	Goodwill	Concessions	Right of use	Software	Total
Balance at March 31, 2016	3,095	2,354	149	420	6,018
Additions		444		4	448
Disposals		(5)			(5)
Amortization		(42)		(40)	(82)
Translation adjustment	124	295	(9)	47	457
Transfers		77			77
Balance at June 30, 2016	3,219	3,123	140	431	6,913
Cost	3,219	4,230	222	1,580	9,251
Accumulated amortization		(1,107)	(82)	(1,149)	(2,338)
Balance at June 30, 2016	3,219	3,123	140	431	6,913

	Goodwill	Concessions	Right of use	Software	Total
Balance at December 31, 2016	3,081	3,301	147	342	6,871
Additions		510		18	528
Disposals		(2)			(2)
Amortization		(89)	(1)	(73)	(163)
Translation adjustment	41	(67)	3		(23)
Balance at June 30, 2017	3,122	3,653	149	287	7,211
Cost	3,122	4,870	230	1,548	9,770
Accumulated amortization		(1,217)	(81)	(1,261)	(2,559)
Balance at June 30, 2017	3,122	3,653	149	287	7,211

	Goodwill	Concessions	Right of use	Software	Total
Balance at December 31, 2015	2,956	1,814	207	347	5,324
Additions		808	1	5	814

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Disposals		(5)			(5)
Amortization		(73)	(1)	(77)	(151)
Translation adjustment	263	502		82	847
Transfers		77	(67)	74	84
Balance at June 30, 2016	3,219	3,123	140	431	6,913
Cost	3,219	4,230	222	1,580	9,251
Accumulated amortization		(1,107)	(82)	(1,149)	(2,338)
Balance at June 30, 2016	3,219	3,123	140	431	6,913

15. Property, plant and equipment

Changes in property, plant and equipment are as follows:

	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
Balance at March 31, 2017	755	11,587	10,924	6,968	9,011	8,306	8,722	56,273
Additions (i)		,	,	,	,	,	782	782
Disposals			(29)	(3)	(122)	(75)	(10)	(239)
Assets retirement obligation					(34)			(34)
Depreciation, amortization and								
depletion		(119)	(178)	(203)	(158)	(173)		(831)
Translation adjustment	(25)	(320)	(317)	(137)	27	(215)	(305)	(1,292)
Transfers	3	365	238	435	21	306	(1,368)	
Balance at June 30, 2017	733	11,513	10,638	7,060	8,745	8,149	7,821	54,659
Cost	733	17,968	16,949	12,605	16,729	12,139	7,821	84,944
Accumulated depreciation		(6,455)	(6,311)	(5,545)	(7,984)	(3,990)		(30,285)
Balance at June 30, 2017	733	11,513	10,638	7,060	8,745	8,149	7,821	54,659

					Mineral		Constructions	
	Land	Building	Facilities	Equipment	properties	Others	in progress	Total
Balance at March 31, 2016	821	9,841	8,712	7,684	10,938	7,645	12,284	57,925
Additions (i)							1,096	1,096
Disposals				(2)		(335)	(20)	(357)
Assets retirement obligation					17			17
Depreciation, amortization and								
depletion		(115)	(149)	(236)	(228)	(169)		(897)
Translation adjustment	64	255	570	341	321	465	1,733	3,749
Transfers	6	339	99	196	118	(261)	(574)	(77)
Transfers to non-current assets								
held for sale						(497)		(497)
Balance at June 30, 2016	891	10,320	9,232	7,983	11,166	6,848	14,519	60,959
Cost	891	16,082	15,013	14,050	18,876	10,450	14,519	89,881
Accumulated depreciation		(5,762)	(5,781)	(6,067)	(7,710)	(3,602)		(28,922)
Balance at June 30, 2016	891	10,320	9,232	7,983	11,166	6,848	14,519	60,959

Balance at December 31, 2016	Land 724	Building 10,674	Facilities 9,471	Equipment 6,794	Mineral properties 8,380	Others 7,515	Constructions in progress 11,861	Total 55,419
Additions (i)		,	,	,	,	,	1,285	1,285
Disposals			(35)	(6)	(122)	(77)	(16)	(256)
Assets retirement obligation					2			2
		(266)	(345)	(396)	(311)	(347)		(1,665)

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Depreciation, amortization and								
depletion								
Translation adjustment	(8)	(91)	(123)	(40)	137	(19)	18	(126)
Transfers	17	1,196	1,670	708	659	1,077	(5,327)	
Balance at June 30, 2017	733	11,513	10,638	7,060	8,745	8,149	7,821	54,659
Cost	733	17,968	16,949	12,605	16,729	12,139	7,821	84,944
Accumulated depreciation		(6,455)	(6,311)	(5,545)	(7,984)	(3,990)		(30,285)
Balance at June 30, 2017	733	11,513	10,638	7,060	8,745	8,149	7,821	54,659

	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
Balance at December 31, 2015	766	9,101	8,292	7,307	10,304	7,206	11,126	54,102
Additions (i)							1,895	1,895
Disposals		(1)	(1)	(13)	(3)	(343)	(21)	(382)
Assets retirement obligation					55			55
Depreciation, amortization and								
depletion		(229)	(289)	(450)	(405)	(310)		(1,683)
Translation adjustment	122	882	1,083	713	1,003	1,024	2,726	7,553
Transfers	3	567	147	426	212	(232)	(1,207)	(84)
Transfers to non-current assets								
held for sale						(497)		(497)
Balance at June 30, 2016	891	10,320	9,232	7,983	11,166	6,848	14,519	60,959
Cost	891	16,082	15,013	14,050	18,876	10,450	14,519	89,881
Accumulated depreciation		(5,762)	(5,781)	(6,067)	(7,710)	(3,602)		(28,922)
Balance at June 30, 2016	891	10,320	9,232	7,983	11,166	6,848	14,519	60,959

⁽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 16(c)) compared to those disclosed in the financial statements as at December 31, 2016.

a) Impairment of non-financial assets

During the quarter Vale, placed an underground mine, which is part of Sudbury operations, on care and maintenance. Parts of the mine, affected by seismic activity, for which repairs would be uneconomical, are not expected to resume operations in the future, was derecognized from property, plant and equipment. As a result, the Company recognized a loss of US\$133 in the income statement as Impairment and other results on non-current assets . As other parts of the mine are subject to resume operation in the future, a net book value in the amount of US\$232 remains as part of the cost of the mine.

16. Loans, borrowings, cash and cash equivalents and financial investments

a) Net debt

The Company evaluates the net debt with the objective of ensuring the continuity of its business in the long term, being able to generate value to its stockholders, through the payment of dividends and capital gain.

	June 30, 2017	December 31, 2016
Debt contracts in the international markets	20,475	21,130
Debt contracts in Brazil	7,377	8,192
Total of loans and borrowings	27,852	29,322
(-) Cash and cash equivalents	5,720	4,262
(-) Financial investments	10	18
Net debt	22,122	25,042

b) Cash and cash equivalents

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.

c) Loans and borrowings

i) Total debt

	Current	liabilities	Non-curre	ent liabilities
	June 30, 2017	December 31, 2016	June 30, 2017	December 31, 2016
Debt contracts in the international markets				
Floating rates in:				
US\$	295	234	4,495	5,489
EUR			228	211
Fixed rates in:				
US\$			14,084	13,083
EUR			856	1,583
Other currencies	16	17	205	209
Accrued charges	296	304		
C	607	555	19,868	20,575
Debt contracts in Brazil				
Floating rates in:				
R\$, indexed to TJLP, TR, IPCA, IGP-M and				
CDI	747	402	4,677	5,621
Basket of currencies and US\$ indexed to			,	,
LIBOR	360	343	1,034	1,217
Fixed rates in:				
R\$	69	66	207	216
Accrued charges	280	294	3	33
J	1,456	1,105	5,921	7,087
	2,063	1,660	25,789	27,662
	,		,	

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

	Principal					
		•	Development		Estimated future	
	Bank loans	Capital markets	agencies	Total	interest payments (i)	
2017	36		501	537	1,656	
2018	527		1,086	1,613	1,528	
2019	1,526	1,000	930	3,456	1,408	
2020	1,860	1,333	795	3,988	1,258	
2021	929	1,341	742	3,012	1,058	
Between 2022 and 2025	1,300	3,353	1,182	5,835	2,834	
2026 onwards	102	8,489	241	8,832	5,929	
	6,280	15,516	5,477	27,273	15,671	

⁽i) Estimated future payments of interest, calculated based on interest rate curves and foreign exchange rates applicable as at June 30, 2017 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, 2017, the average annual interest rates by currency are as follows:

Loans and borrowings	Average interest rate (i)	Total debt
US\$	5.20%	20,554
R\$ (ii)	8.81%	5,974
EUR (iii)	3.35%	1,101
Other currencies	3.12%	223
		27,852

⁽i) In order to determine the average interest rate for debt contracts with floating rates, the Company used the rate applicable at June 30, 2017.

⁽ii) R\$ denominated debt that bears interest at IPCA, CDI, TR or TJLP, plus spread. For a total of US\$4,094 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 2.44% per year in US\$.

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

ii) Credit and financing lines

Туре	Contractual currency	Date of agreement	Period of the agreement	Total amount	Available amount June 30, 2017
Credit lines					
Revolving credit facilities	US\$	May 2015	5 years	3,000	3,000
Revolving credit facilities	US\$	June 2017	5 years	2,000	2,000
Financing lines					
BNDES (i)	R\$	April 2008	10 years	2,249	89
BNDES - CLN 150	R\$	September 2012	10 years	1,196	6
BNDES - S11D e S11D Logística	R\$	May 2014	10 years	1,899	647

⁽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 pelletizing plant VIII, Onça Puma, Salobo I and II and capital expenditure of Itabira projects.

In June 2017, the Company signed a US\$2,000 revolving credit facility, which will be available for five years, to replace the US\$2,000 line that was signed in 2013, which was cancelled. In June 2017, the total available amount in revolving credit facilities remains at US\$5,000.

iii) Funding

In February 2017, the Company issued through Vale Overseas Limited guaranteed notes due August 2026 totaling US\$1,000. The notes bears 6.250% coupon per year, payable semi-annually, and were sold at a price of 107.793% of the principal amount. The notes were consolidated with, and formed a single series with, Vale Overseas s US\$1,000 6.250% notes due 2026 issued on August, 2016.

iv) Guarantees

As at June 30, 2017 and December 31, 2016, loans and borrowings are secured by property, plant and equipment and receivables in the amount of US\$369 and US\$472, respectively.

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The securities issued through Vale s 100%-owned finance subsidiary Vale Overseas Limited are fully and unconditionally guaranteed by Vale.
v) Covenants
Some of the Company s debt agreements with lenders contain financial covenants. The primary financial covenants in those agreements require maintaining certain ratios, such as debt to EBITDA and interest coverage. The Company has not identified any instances of noncompliance as at June 30, 2017 and December 31, 2016.
vi) Hedge in foreign operations
Implementation of net investment hedge
As at January 1, 2017, Vale S.A., the functional currency of which is Reais, designated its debts in US\$ and Euro, as an instrument in a hedge of its investment in foreign operations (Vale International S.A. and Vale International Holding GmbH; hedging objects) for mitigating the foreign
exchange risk on financial statements.
At June 30, 2017 the carrying value of the designated debts are US\$6,668 and EUR750. The foreign exchange losses of US\$392 and US\$128 (US\$258 and US\$84, net taxes), was recognized in the Cumulative translation adjustments in stockholders equity for the three and six month periods ended June 30, 2017, respectively. This hedge was highly effective throughout the period ended on June 30, 2017.
f
Accounting policy
Foreign currency differences arising on the translation of a financial liability designated as a hedge of a net investment in a foreign operation are recognized in other comprehensive income to the extent that the hedge is effective and regardless of whether the net investment is held directly
or through an intermediate parent.
The hedging instrument is accounted for in the same way as a cash flow hedge, i.e. translated at the closing rate with the gain or loss on the

effective hedge being recognized in equity. Gains or losses in the reserves will only be realized when the foreign operation is disposed of.

17. Liabilities related to associates and joint ventures

Refers to the provision to comply with the obligations under the agreement related to the dam failure of Samarco Mineração S.A.	(Samarco),
which is a Brazilian joint venture between Vale S.A. and BHP Billiton Brasil Ltda. (BHPB), as follows:		

a) Framework agreement

On November 5, 2015, Samarco experienced the failure of an iron ore tailings dam (Fundão) in the state of Minas Gerais.

Samarco and its shareholders, Vale S.A. and BHPB, entered into an Agreement (Framework Agreement) on March 2, 2016 with the Brazilian federal government, the two Brazilian states affected by the failure (Espírito Santo and Minas Gerais) and other governmental authorities in order to implement the programs for remediation and compensation of the areas and communities affected by Samarco s dam failure.

The Framework Agreement does not contemplate admission of civil, criminal or administrative liability for the Fundão dam failure.

The Framework Agreement has a 15-year term, renewable for successive one-year periods until all the obligations under the Framework Agreement have been performed.

On June 24, 2016, the Renova Foundation (Foundation) was established, under the Framework Agreement, to develop and implement the socio-economic restoration and compensation programs. The Foundation began its operations in August of 2016.

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

As the consequence of the dam failure, governmental authorities ordered the suspension of Samarco s operations.

b) Estimates used for the provision

In light of the uncertainties related to the Samarco s future cash flow, Vale S.A. recognized a provision on its interim financial statements as of June 30, 2016, for estimated costs in the amount of US\$1,163 (R\$3,733) provision, which represents Vale S.A. s best estimate of the obligation to comply with the reparation and compensation programs under the Framework Agreement, equivalent to its 50% equity interest in Samarco.

In August 2016 and January 2017, Samarco issued non-convertible private debentures, which were subscribed equally by Vale S.A., and BHPB, being the resources contributed by Vale S.A., in the first semester of 2017, allocated as follows:

- (i) US\$71 (R\$224), being US\$11 (R\$37) in the second quarter of 2017, used in the reparation programs in accordance with the Framework Agreement, and therefore, applied against the provision mentioned above;
- (ii) US\$92 (R\$292), being US\$31 (R\$101) in the second quarter of 2017, applied by Samarco to fund its working capital, and recognized in Vale's income statement as Impairment and other results in associates and joint ventures .

Vale S.A intends to provide short term credit line of up to US\$76 (R\$251) to support Samarco operations in the second half of 2017, without undertaking an obligation to Samarco. Funds for working capital requirements will be released as needed by the shareholders subject to achieving certain milestone, on the same basis.

As a result of the establishment of the Foundation, most of the reparation and compensation programs were transferred from Samarco. Therefore, Vale S.A. made contributions to the Foundation totaling US\$68 (R\$217) in 2017, being US\$45 (R\$142) in the second quarter of 2017, to be used in the programs in accordance with the Framework Agreement.

As a result of the above mentioned, the movements of the provision in the three and six month periods ended in June 30, 2017 are as follows:

	2017
Balance at March 31,	1,071
Payments	(56)
Interests	43
Translation adjustment	(39)

Balance at June 30, 1,019

	2017
Balance at January 1st,	1,077
Payments	(139)
Interests	90
Translation adjustment	(9)
Balance at June 30,	1,019
Current liabilities	295
Non-current liabilities	724
Liabilities	1,019

At each reporting period, Vale S.A. will reassess the key assumptions used by Samarco in the preparation of the projected future cash flows and will adjust the provision, if required.

c) Contingencies related to Samarco accident

(i) Public civil lawsuit filed by the Federal Government and others

The federal government, the two Brazilian states affected by the failure (Espirito Santo and Minas Gerais) and other governmental authorities have initiated a public civil lawsuit against Samarco and its shareholders, Vale S.A. and BHPB, with an estimated value indicated by the plaintiffs of US\$6.1 billion (R\$20.2 billion).

On May 5, 2016, the Framework Agreement, which was signed on March 2, 2016, was ratified by the Federal Regional Court (TRF), 1st Region. In June 2016 the Superior Court of Justice (STJ) in Brazil issued an interim order, suspending the decision of TRF, which ratified the Framework Agreement until the final judgments of the claim.

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On August 17, 2016, the TRF of the 1st Region rejected the appeal presented by Samarco, Vale S.A. and BHPB against the interim order, and overruled the judicial decision that ratified the Framework Agreement. This decision of the TRF of the 1st Region, among other measures, confirmed a prior injunction that prohibited the defendants from transferring or conveying any of their interest in its Brazilian iron ore concessions, without, however, limiting their production and commercial activities and ordered a deposit with the court of US\$363 (R\$1.2 billion) by January 2017. This US\$363 (R\$1.2 billion) cash deposit was provisionally replaced by the guarantees provided for under the agreements with MPF, as detailed in the item (ii) below.

(ii) Public civil lawsuit filed by Federal Prosecution Office

On May 3, 2016, the Federal Prosecution Office (MPF) filed a public civil lawsuit 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 estimated action value indicated by the Federal Prosecution Office (MPF) is US\$47 billion (R\$155 billion). The first conciliatory hearing was held on September 13, 2016. On November 21, 2016, the court ordered that the defendants be served, and the defendants submitted their defense.

In January 2017 Samarco, Vale S.A. and BHPB entered into two preliminary agreements with the Federal Prosecutor s Office in Brazil (MPF).

The first agreement (First Agreement) aims to outline the process and timeline for negotiations of a Final Agreement (Final Agreement), initially expected to occur by June 30th, 2017 and now expected to occur by October 30, 2017. This First Agreement establishes a timeline and actions to set the ground for conciliation of two public civil lawsuits which aim to establish socio-economic and socio-environmental remediation and compensation programs for the impacts of the Fundão dam failure, respectively: claim nº 023863-07.2016.4.01.3800, filed by the Federal Prosecutors, as mentioned in this item, and claim nº 0069758-61.2015.4.01.3400, filed by the Federal Government, the states of Minas Gerais and Espírito Santo and other governmental authorities, as mentioned in the item (i) above. Both claims were filed with the 12th Judicial Federal Court of Belo Horizonte and are suspended as requested by the parties.

In addition, the First Agreement provides for: (i) the appointment of experts to give support the Federal Prosecutors and paid for by the companies to conduct a diagnosis and monitor the progress of the 41 programs under the Framework Agreement signed on March 2nd, 2016 by the companies and the Federal Government and the states of Minas Gerais and Espírito Santo and other governmental authorities and (ii) holding at least eleven public hearings, five of which are to be held in Minas Gerais, three in Espírito Santo and the remainder in the indigenous territories of the Krenak, Comboios and Caieiras Velhas, in order to allow these communities to take part in the definition of the content of the Final Agreement.

Samarco, Vale S.A. and BHPB has agreed to provide the 12th Judicial Federal Court of Belo Horizonte with a guarantee for fulfillment of the obligations regarding the financing and payment of the socio-environmental and socio-economic remediation programs resulting from the

Fundão dam failure, pursuant to the two public civil actions, until the signing of the Final Agreement, amounting to US\$665 (R\$2.2 billion), of which (i) US\$30 (R\$100) in financial investments; (ii) US\$393 (R\$1.3 billion) in insurance bonds; and (iii) US\$242 (R\$800) in assets of Samarco. In order to implement the First Agreement, it has been requested that the 12th Judicial Federal Court of Belo Horizonte accept such guarantees until the completion of the negotiations and the signing of the Final Agreement, or until October 30, 2017, whichever comes first; or until the parties reach a new agreement regarding the guarantees. If, by October 30th, the negotiations have not been completed, the Federal Prosecutor's Office may require that the 12th Judicial Federal Court of Belo Horizonte re-institute the order for the deposit of US\$363 (R\$1.2 billion) in relation to the US\$6.1 billion (R\$20.2 billion) public civil action, which is currently suspended. The parties requested the partially ratification of the First Agreement, excluding only the engagement of the socio-economic expert condition.

On March 16, 2017, the 12th Judicial Federal Court of Belo Horizonte partially ratified the First Agreement, being that this decision includes: (i) ratification of the engagement of experts to perform a socio-environmental impact assessment and assessment of programs under the Framework Agreement signed on March 2nd, 2016 and a period for the companies to engage an expert to perform the socio-economic impact assessment; (ii) the consolidation and suspension of related claims aiming to avoid contradictory or conflicting decisions and to establish a unified judicial procedure in order for the parties to be able to reach a final agreement; (iii) accepted the guarantees proposed by Samarco and its shareholders under the Preliminary Agreement on a temporary basis. Parties are still negotiating an agreement regarding the choice of the expert to perform the socio-economic impact assessment.

In addition, the Second Agreement (Second Agreement) was signed, which establishes a timetable to make funds available to remediate the social, economic and environmental damages caused by the Fundão dam failure in the municipalities of Barra Longa, Rio Doce, Santa Cruz do Escalvado and Ponte Nova, amounting to US\$60 (R\$200). The 12th Judicial Federal Court of Belo Horizonte ratified this Second Agreement.

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(iii) U.S. Securities class action suits
Related to the Vale's American Depositary Receipts
On May 2, 2016, Vale S.A. and certain of its officers were named as defendants in securities class action suits in the 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 did not 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 or indemnities in these actions.
In July 2016, Vale S.A. and the individual defendants filed a motion to dismiss the Amended Complaint.
On March 23, 2017 the judge issued a decision rejecting a significant portion of the claims against Vale S.A. and the individual defendants, and determining the prosecution of the action with respect to more limited claims. The portion of plaintiffs—case that remains is related to certain statements about procedures, policies and risk mitigation plans contained in Vale S.A. s sustainability reports in 2013 and 2014, and certain statements regarding to the responsibility of Vale S.A. for the Fundão dam failure made in a conference call in November 2015.
Vale S.A. continues to contest the lawsuit and the outstanding points.
Related to the Samarco bonds
In March 2017, holders of bonds issued by Samarco, filed a class action suit in the Federal Court in New York against Samarco, Vale S.A. and BHPB under U.S. federal securities laws demanding for indemnification for alleged violation of U.S. federal securities laws. The plaintiffs allege that false and misleading statements were made or disclosures omitted concerning the risks and dangers of the operations of Samarco s Fundão dam and the adequacy of related programs and procedures.
It is alleged that with the Fundão dam collapse, the securities have dramatically decreased, in order that the investors who have purchased such securities in a misleading way should be compensated, without, however, specifying an amount for the alleged damages or indemnities in this action.

In June 2017, Vale S.A. and the other defendants have jointly filed a Motion to Dismiss the Complaint.
Vale S.A. continues to contest this lawsuit.
(iv) Criminal lawsuit
On October 20, 2016, the MPF brought a criminal lawsuit in the Brazilian Federal Justice Court against Vale S.A., BHPB, Samarco, VogBr Recursos Hídricos e Geotecnia Ltda. and 22 individuals for alleged crimes against the environment, urban planning and cultural heritage, flooding, landslide, as well as for alleged crimes against the victims of the Fundão dam failure.
On November 16, 2016, the judge received the Federal Prosecutors Office criminal lawsuit and determined the summons of all defendants, granting 30 days each to file their defenses, to count from the day they receive the summon. Vale has already been served and its defense was presented in March 3, 2017.
On May 8th, 2017, Vale presented its manifestation against the Federal Prosecutors Office dismemberment requests and on June 6th, 2017, the Federal Prosecutors Office presented its reply to the defenses, where it requested for the action to be regularly processed.
Currently, the case awaits the judge s decision.
(v) Other lawsuits
In addition, Samarco and its shareholders were named as a defendant in several other lawsuits brought by individuals, corporations, governmental entities or public prosecutor seeking personal and property damages.
These lawsuits and petitions are at early stages, so it is not possible to determine a range of outcomes or reliable estimates of the potential exposure at this time. No contingent liability has been quantified and no provision was recognized for lawsuits related to Samarco's dam failure
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18. Financial instruments classification

Financial assets	Loans and receivables or amortized cost	June 30, 2017 At fair value through profit or loss	Total	Loans and receivables or amortized cost	December 31, 2016 At fair value through profit or loss	Total
Current						
Cash and cash equivalents	5,720		5,720	4,262		4,262
Financial investments	10		10	18		18
Derivative financial instruments		159	159		274	274
Accounts receivable	1,709		1,709	3,663		3,663
Related parties	2,024		2,024	71		71
	9,463	159	9,622	8,014	274	8,288
Non-current						
Derivative financial instruments		495	495		446	446
Loans	180		180	180		180
Related parties	2,659		2,659	2		2
	2,839	495	3,334	182	446	628
Total of financial assets	12,302	654	12,956	8,196	720	8,916
Financial liabilities						
Current						
Suppliers and contractors	3,746		3,746	3,630		3,630
Derivative financial instruments		362	362		414	414
Loans and borrowings	2,063		2,063	1,660		1,660
Related parties	514		514	672		672
	6,323	362	6,685	5,962	414	6,376
Non-current						
Derivative financial instruments		975	975		1,225	1,225
Loans and borrowings	25,789		25,789	27,662		27,662
Related parties	994		994	127		127
Participative stockholders						
debentures		1,175	1,175		775	775
	26,783	2,150	28,933	27,789	2,000	29,789
Total of financial liabilities	33,106	2,512	35,618	33,751	2,414	36,165

19. Fair value estimate

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

June 30, 2017 December 31, 2016

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	Level 2	Level 3	Total	Level 2	Level 3	Total
Financial assets						
Derivative financial instruments	282	372	654	405	315	720
Total	282	372	654	405	315	720
Financial liabilities						
Derivative financial instruments	894	443	1,337	1,190	449	1,639
Participative stockholders debentures	1,175		1,175	775		775
Total	2,069	443	2,512	1,965	449	2,414

In June 2017, the Company recognized in the financial results, the amount of US\$63 and US\$(3) related to the measurement of the fair value and US\$(6) and US\$9 related to cumulative translation adjustment of derivative financial instruments assets and liabilities classified as level 3, respectively.

There were no transfers between Level 1 and Level 2, or between Level 2 and Level 3 in the period ended June 30, 2017.

Methods and techniques of evaluation

i) Derivative financial instruments

Financial instruments are evaluated by calculating their present value through the use of instrument yield curves at the closing dates. The curves and prices used in the calculation for each group of instruments are detailed in the market curves .

The pricing method used for European options is the Black & Scholes model. In this model, the fair value of the derivative is a function of the volatility in the price of the underlying asset, the exercise price of the option, the interest rate and period to maturity. In the case of options which income is a function of the average price of the underlying asset over the period of the option, the Company uses Turnbull & Wakeman model. In this model, in addition to the factors that influence the option price in the Black-Scholes model, the formation period of the average price is also considered.

In the case of swaps, both the present value of the assets and liability are estimated by discounting the cash flow by the interest rate of the currency in which the swap is denominated. The difference between the present value of assets and liability of the swap generates its fair value.

For the TJLP swaps, the calculation of the fair value assumes that TJLP is constant, that is the projections of future cash flow in Brazilian Reais are made on the basis of the last TJLP disclosed.

Contracts for the purchase or sale of products, inputs and costs of selling with future settlement are priced using the forward yield curves for each product. Typically, these curves are obtained on the stock exchanges where the products are traded, such as the London Metals Exchange (LME), the Commodity Exchange (COMEX) or other providers of market prices. When there is no price for the desired maturity, Vale uses an interpolation between the available maturities.

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

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

Financial liabilities	Balance	Fair value	Level 1	Level 2
June 30, 2017				
Debt principal	27,273	27,299	15,298	12,001
December 31, 2016				
Debt principal	28,691	27,375	13,874	13,501

Due to the short-term cycle, the fair value of cash and cash equivalents balances, financial investments, accounts receivable and accounts payable approximate their book values.

20. Derivative financial instruments

a) Derivatives effects on statement of financial position

		Assets	S	
	June 30,	2017	December 3	31, 2016
	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	96	1	132	1
IPCA swap	6	66	7	61
Pré-dolar swap	22	10	1	23
•	124	77	140	85
Commodities price risk				
Nickel	1		4	2
Bunker oil	34		130	
	35		134	2
Others		418		359
		418		359
Total	159	495	274	446
	21			
	31			
Bunker oil Others	34 35	418	130 134	

		Liabilities		
	June 30,	2017	December	31, 2016
	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	325	435	293	638
IPCA swap	19	58	20	57
Eurobonds swap	5	6	7	45
Euro Forward			46	
Pré-dolar swap	4	30	5	32
	353	529	371	772
Commodities price risk				
Nickel			5	2
Bunker oil	9		38	
	9		43	2
Others		446		451
		446		451
Total	362	975	414	1,225

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

	Gain (loss) recogn income state	ement	Three month period Financial settlem (outflow	ent inflows vs)	Gain (loss) recognized in other comprehensive income	
Dominatives not designated as	2017	2016	2017	2016	2017	2016
Derivatives not designated as hedge accounting						
Foreign exchange and interest rate risk						
CDI & TJLP vs. US\$ fixed and	(0.4)	444	2	(40)		
floating rate swap	(94)	444	3	(49)		
IPCA swap	(18)	31				
Eurobonds swap	29	(20)				
Euro forward		(14)				
Pré-dolar swap	(13)	42	(1)	(1)		
•	(96)	483	2	(50)		
Commodities price risk						
Nickel	(4)	(13)	(5)	(9)		
Bunker oil	(18)	148		(294)		
	(22)	135	(5)	(303)		
	` ′		` ,	`		
Others	27	141				
Total	(91)	759	(3)	(353)		

	Gain (loss) recog	nized in the	Six month period e Financial settlen		Gain (loss) recognized in other		
	income stat		(outflow		comprehens		
	2017	2016	2017	2016	2017	2016	
Derivatives not designated as							
hedge accounting							
Foreign exchange and interest							
rate risk							
CDI & TJLP vs. US\$ fixed and							
floating rate swap	87	838	(41)	(92)			
IPCA swap	6	73		1			
Eurobonds swap	2	(6)	(39)	(142)			
Euro forward	46	(12)					
Pré-dolar swap	10	76	(1)	(74)			
	151	969	(81)	(307)			
Commodities price risk							
Nickel	(4)	(37)	(6)	(26)			
Bunker oil	(90)	134	(23)	(476)			
	(94)	97	(29)	(502)			
Others	61	136					
Derivatives designated as cash							
flow hedge accounting							
Bunker oil				(51)			
Foreign exchange		(3)		(3)		2	
		(3)		(54)		2	
Total	118	1,199	(110)	(863)		2	
			32				

m	. 1					
Tal	hl	e	ot	on	itei	nts

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

	Last maturity dates
Currencies and interest rates	July 2023
Bunker oil	December 2017
Nickel	August 2019
Others	December 2027

Additional information about derivatives financial instruments

In millions of United States dollars, except as otherwise stated

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 statistical 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, 2017. 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, 2017, 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) Derivative instruments 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		ional Æmbe	er 31, 2	Uh6le x	Average rate		ir value December 31, 2016	Financial settlement Inflows (Outflows) June 30, 2017	Value at Risk June 30, 2017		-	-
CDI vs. US\$ fixed rate swap	D# 5.500	D.A.	6.200	an.	105.00%	(99)	(121)	66	26	38	(101)	(36)
Receivable Payable	R\$ 5.783 US\$ 1.858		6.289 2.105	CDI Fix	107,29% 3,95%							
TJLP vs. US\$ fixed rate swap						(508)	(622)	(106)	57	(96)	(90)	(323)
Receivable	R\$ 3,585		4.360	TJLP +	1,27%							
Payable	US\$ 1.623	US\$	2.030	Fix	1,62%							
TJLP vs. US\$ floating rate swap						(56)	(55)	(1)	4	(2)	(4)	(50)
Receivable	R\$ 230	R\$	242	TJLP +	0,89%	, ,		` `		Ì	ì	Ì
Payable	US\$ 131	US\$	140	Libor +	-1,22%							
R\$ fixed rate vs. US\$ fixed												
rate swap Receivable	R\$ 1.198	R\$	1.031	Fix	7,04%	(2)	(13)	(1)	27	(3)	16	(16)
Payable		US\$	343	Fix	-1,02%							
IPCA vs. US\$ fixed rate swap						(53)	(51)		11		6,3	(59)
Receivable	R\$ 1.000	D¢	1.000	IPCA +	6,55%	Ì	(31)		- 11		0,3	(39)
Payable	US\$ 434		434	Fix	3,98%							
IPCA vs. CD swap	I					48	42		0,4	(19)	(3)	70
Receivable	R\$ 1.350	R\$	1.350	IPCA +	6,62%							
Payable	R\$ 1.350	R\$	1.350	CDI	98,59%							

(ii) Derivative instruments 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\$. 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.

							Financial Settlement			
Notional					Fa	ir value	Inflows (Outflows)	Value at Risk	Fair value b	y year
Flow	June 30 D204 f	hber 31,	201 6 ex	Average rate	June 30, 2017	December 31, 2016	June 30, 2017	June 30, 2017	2017 2018	2019+
EUR fixed										
rate vs.										
US\$ fixed r	ate									
swap					(11)	(52)	(7)	6	(5)	(6)
Receivable	500	500) Fix	3,75%	,					
Payable	US\$613 U	US\$ 613	3 Fix	4,29%	,					

						Financial Settlement		Fair value
	Notional	Bought /	Average rate	Fa	ir value	Inflows (Outflows)	Value at Risk	by year
Flow June	e 30 ,DM:e mber 31	, 201 6 old	(USD/EUR)	June 30, 2017	December 31, 2016	June 30, 2017	June 30, 2017	2017
Forwards	0 50	00 B	1,143		(46)	(32)		

b) Commodities derivative positions

(i) Bunker Oil purchase cash flows derivatives

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

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

					Financial settlement		Fair value
	Notional (ton)	Bought / Average		air value	Inflows (Outflows)	Value at Risk	
Flow	June 30, 2017 December 31, 2016	Sold (US\$	/ton) June 30, 2017	December 31, 2016	June 30, 2017	June 30, 2017	2017
Bunker							
Oil							
protection							

Call									
options	2.499.996	2.856.000	В	327	34	130	1	11	34
Put options	2.499.996	2.856.000	S	220	(9)	(14)		3	(9)
Total					25	116			25

As at December 31, 2016, excludes US\$24, of transactions in which the financial settlement occurs subsequently of the closing month.

(ii) Derivative instruments for base metals raw materials and products

Derivative instruments 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		onal (ton) December 31, 2016		Average strike (US\$/ton)		ir value December 31, 2016	Financial settlement Inflows (Outflows) June 30, 2017	Value at Rishir value June 30, 2017 2017 2	
Fixed price sales protection									
Nickel forwards	11.941	11.615	В	9.463	0	(1)	(7)	3 (1)	1
Raw material purchase protection									
Nickel forwards	814	134	S	9.020	(0,26)	0,11	0,64	0,24 (0,26)	
Copper forwards Total	419	441	S	5.885	(0,03) (0,29)		(0,22)	0,03 (0,03) (0,29)	
					(*,)	(1,11)		(4)-2)	

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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.

							Financial settlement		Fair value	
	Notion	al (quantity)	Bought /	Average strike	Fa	ir value	Inflows (Outflows)	Value at Risk	by year	
Flow	June 30, 2017	December 31, 2016	Sold	(US\$/share)	June 30, 2017	December 31, 2016	June 30, 2017	June 30, 2017	2023	
Call										
options	10.000.000	10.000.000	В	44	46	44		5	46	

d) Debentures convertible into shares of Valor da Logística Integrada (VLI)

The company has debentures in which lenders have the option to convert the outstanding debt into a specified quantity of shares of VLI owned by the company.

			Bought	Average			Financial settlement		Fair value
	Notional	(quantity)	/	strike	Fair	r value	Inflows (Outflows)	Value at Risk	by year
Flow	June 30, 2017	December 31, 2016	Sold	(R\$/share)	June 30, 2017	December 31, 2016	June 30, 2017	June 30, 2017	2027
Conversion options	140.239	140.239	S	8.469	(68)	(72))	5	(68)

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

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

			Bought	Average			Financial settlement		Fair value
	Notional (quar	ntity in millions)	/	strike	Fai	ir value	Inflows (Outflows)	Value at Risk	by year
Flow	June 30, 2017	December 31, 2016	Sold	(R\$/share)	June 30, 2017	December 31, 2016	June 30, 2017	June 30, 2017	2017+
Options	2.139	2.139	B/S	1,7	173	121		11	173

f) Embedded derivatives in contracts

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

Flow	Notion June 30, 2017	nal (ton) December 31, 2016	Bought / Sold	Average strike (US\$/ton)	Fa June 30, 2017	ir value December 31, 2016	Financial settlement Inflows (Outflows) June 30, 2017	Value at Risk June 30, 2017	Fair value by year 2017
Nickel forwards	3.062	5.626	S	9.312	(1,17)	0,35			(1,17)
Copper						·			
forwards Total	2.718	3.684	S	5.652	0,12 (1,05)	1,54 1,88		1,19	0,12 (1,05)

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.

	Notional (volume/month)	Bought /	Average strike	Fai	r value	Financial settlement Inflows (Outflows)	Value at Risk	Fair value	e by year
Flow	June 30, 2017	December 31, 2016	Sold	(US\$/ton)	June 30, 2017	December 31, 2016	June 30, 2017	June 30, 2017	2017	2018+
Call options	746.667	746.667	S	233	(3,4)	(2,0)		2,1	(0,13)	(3,3)

In August 2014 the Company sold part of its stake in Valor da Logística Integrada (VLI) to an investment fund managed by Brookfield Asset Management (Brookfield). The sales contract includes a clause that establishes, under certain conditions, a minimum return guarantee on Brookfield s investment. This clause is considered an embedded derivative, with payoff equivalent to that of a put option.

							Financial settlement		Fair value
	Notional (quantity)	Bought /	Average strike	Fai	r value	Inflows (Outflows)	Value at Risk	by year
Flow	June 30, 2017	December 31, 2016	Sold	(R\$/share)	June 30, 2017	December 31, 2016	June 30, 2017	June 30, 2017	2027
Put option	1.105.070.863	1.105.070.863	S	3,07	(176)	(182)		16	(176)

For sensitivity analysis of derivative financial instruments, Financial counterparties ratings and market curves, see note 27.

21. Provisions

	Current 1	liabilities	Non-current liabilities		
	June 30, 2017	December 31, 2016	June 30, 2017	December 31, 2016	
Payroll and related charges	649	725			
Onerous contracts	56	101	443	473	
Environment Restoration	20	10	90	111	
Asset retirement obligations	37	47	2,565	2,472	
Provisions for litigation (note 22 (a))			743	839	
Employee postretirement obligations (note 23)	72	69	2,212	1,853	
Provisions	834	952	6,053	5,748	

22. Litigation

a) Provision for litigation

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

Changes in provision for litigation are as follows:

	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
Balance at March 31, 2017	225	81	560	6	872
Additions	2	6	56	2	66
Reversals	(13)	(7)	(29)		(49)
Payments	(90)	(1)	(28)		(119)
Indexation and interest	(9)	3	2	1	(3)
Translation adjustment	4	(3)	(24)	(1)	(24)
Balance at June 30, 2017	119	79	537	8	743

		~		Environmental	Total of litigation
	Tax litigation	Civil litigation	Labor litigation	litigation	provision
Balance at March 31, 2016	218	103	507	23	851
Additions	18	44	50	3	115
Reversals	(9)	(19)	(28)	(2)	(58)
Payments	(33)	(26)	(44)		(103)
Indexation and interest	26	(1)	10	(1)	34
Translation adjustment	11	11	54	3	79
Additions and reversals of discontinued					
operations			6		6
Balance at June 30, 2016	231	112	555	26	924

	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
Balance at December 31, 2016	214	84	534	7	839
Additions	2	20	100	5	127
Reversals	(13)	(28)	(55)	(2)	(98)
Payments	(89)	(7)	(47)		(143)
Indexation and interest	(1)	10	13	(1)	21
Translation adjustment	6		(8)	(1)	(3)
Balance at June 30, 2017	119	79	537	8	743

	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
Balance at December 31, 2015	269	79	454	20	822
Additions	34	55	100	5	194
Reversals	(17)	(22)	(46)	(3)	(88)
Payments	(88)	(44)	(66)		(198)
Indexation and interest	9	22	8		39
Translation adjustment	22	21	91	4	138
Additions and reversals of discontinued					
operations	2	1	14		17
Balance at June 30, 2016	231	112	555	26	924

b) Contingent liabilities

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

	June 30, 2017	December 31, 2016
Tax litigation	8,480	7,636
Civil litigation	2,349	1,502
Labor litigation	2,194	2,418
Environmental litigation	1,945	1,871
Total	14,968	13,427

- i Tax litigation Our most significant tax-related contingent liabilities result from disputes related to (i) the deductibility of our payments of social security contributions on the net income (CSLL) from our taxable income, (ii) challenges of certain tax credits we deducted from our PIS and COFINS payments, (iii) assessments of CFEM (royalties), and (iv) charges of value-added tax on services and circulation of goods (ICMS), especially relating to certain tax credits we claimed from the sale and transmission of energy, ICMS charges to anticipate the payment in the entrance of goods to Pará State, ICMS charges on our own transportation costs and challenges to other tax credits we claimed. The changes reported in the period resulted, mainly, from new proceedings related to PIS, COFINS, ICMS, CFEM; interest and inflation adjustments in the amounts in dispute.
- **ii** Civil litigation Most of those claims have been filed by suppliers for indemnification under construction contracts, primarily relating to certain alleged damages, payments and contractual penalties. A number of other claims related to contractual disputes regarding inflation index.

iii - Labor litigation - Represents individual claims by employees and service providers, primarily involving demands for additional compensation for overtime work, time spent commuting or health and safety conditions; and the Brazilian federal social security administration (INSS) regarding contributions on compensation programs based on profits.

iv - Environmental litigation - The most significant claims concern alleged procedural deficiencies in licensing processes, non-compliance with existing environmental licenses or damage to the environment.

c) Judicial deposits

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

	June 30, 2017	December 31, 2016
Tax litigation	190	193
Civil litigation	57	62
Labor litigation	680	691
Environmental litigation	12	16
Total	939	962

d) Others

For contingencies related to Samarco Mineração S.A., see note 17.

23. Employee postretirement obligations

Reconciliation of net liabilities recognized in the statement of financial position

	Overfunded	2017 Underfunded		Overfunded	2016 Underfunded	
	pension plans	pension plans	Other benefits	pension plans	pension plans	Other benefits
Movements of assets						
ceiling						
Balance at March 31,	1,650			1,340		
Interest income	37			39		
Changes on asset ceiling						
and onerous liability	(186)			153		
Translation adjustment	(54)			163		
Balance at June 30,	1,447			1,695		
Amount recognized in the						
statement of financial						
position						
Present value of actuarial						
liabilities	(3,296)	(4,504)	(1,448)	(3,075)	(4,064)	(1,398)
Fair value of assets	4,743	3,668	, , ,	4,770	3,235	
Effect of the asset ceiling	(1,447)	,		(1,695)	,	
Liabilities		(836)	(1,448)	, ,	(829)	(1,398)
		` ′	, , ,		· í	
Current liabilities		(19)	(53)		(20)	(57)
Non-current liabilities		(817)	(1,395)		(809)	(1,341)
Liabilities		(836)	(1,448)		(829)	(1,398)

	Overfunded pension plans	2017 Underfunded pension plans	Other benefits	Overfunded pension plans	2016 Underfunded pension plans	Other benefits
Movements of assets						
ceiling						
Balance at January 1st,	1,351			961		
Interest income	77			72		
Changes on asset ceiling and						
onerous liability	49			381		
Translation adjustment	(30)			281		
Balance at June 30,	1,447			1,695		

Amount recognized in the statement of financial position

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Present value of actuarial						
liabilities	(3,296)	(4,504)	(1,448)	(3,075)	(4,064)	(1,398)
Fair value of assets	4,743	3,668		4,770	3,235	
Effect of the asset ceiling	(1,447)			(1,695)		
Liabilities		(836)	(1,448)		(829)	(1,398)
Current liabilities		(19)	(53)		(20)	(57)
Non-current liabilities		(817)	(1,395)		(809)	(1,341)
Liabilities		(836)	(1,448)		(829)	(1,398)

24. Stockholders equity

a) Share capital

At June 30, 2017 and December 31, 2016, the share capital was US\$61,614 corresponding to 5,244,316,120 shares issued and fully paid without par value.

		June 30, 2017	
Stockholders	ON	PNA	Total
Valepar S.A.	1,716,435,045	20,340,000	1,736,775,045
Brazilian Government (Golden Share)		12	12
Foreign investors - ADRs	769,357,504	584,202,865	1,353,560,369
FMP - FGTS	65,855,336		65,855,336
PIBB - Fund	785,064	1,627,176	2,412,240
BNDESPar	206,378,882	66,185,272	272,564,154
Foreign institutional investors in local market	273,887,689	829,336,231	1,103,223,920
Institutional investors	111,858,158	156,477,855	268,336,013
Retail investors in Brazil	41,095,322	309,552,515	350,647,837
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
Share capital - Amounts per class of shares (in millions)	38,525	23,089	61,614
Total authorized shares	3,600,000,000	7,200,000,000	10,800,000,000

PNA - Preferred shares

ON - Common shares

b) New stockholders agreement

On February 20, 2017 the Company announced that a new shareholders agreement was filed at the Company s headquarters, executed by Litel Participações S.A., Litela Participações S.A., Bradespar S.A., Mitsui & Co., Ltd. and BNDES Participações S.A. BNDESPAR, as shareholders of Valepar S.A. (Valepar), jointly referred to as Shareholders, which entered into force after the expiration of Valepar s Shareholders Agreement on May 10, 2017.

The Valepar Agreement, along with the standard provisions in connection with voting rights and right of first refusal for the acquisition of the
Shareholders shares, provides for the submission to the Company of a proposal for the purpose of enabling the listing of Vale on B3 S.A. New
Market segment (Brazil) and making Vale a company without defined control (Proposal).

The transaction envisaged by the Proposal is composed of a series of indivisible and interdependent steps, whose effectiveness is subject to the successful performance of the other steps. The Proposal comprises, beyond the performance of all acts and procedures imposed by the applicable legal provisions and rules:

- (i) Voluntary conversion of Vale class A preferred shares into common shares, based on the conversion rate of 0.9342 common shares for each Vale class A preferred share, based on the average closing price of the common shares and preferred shares over the last 30 trading sessions on the B3 S.A. prior to February 17, 2017 (inclusive), weighted by the volume of shares traded in such trading sessions;
- (ii) Amendment of Vale s bylaws, so as to adjust it, as much as possible, to B3 S.A. New Market segment rules so Vale may be effectively listed on such special segment;
- (iii) The merger of Valepar into Vale at an exchange ratio that contemplates a 10% increase in the number of shares held by the shareholders of Valepar compared to Valepar s current shareholding interest, and represents a dilution of approximately 3% of the shareholding interest held by the other shareholders in Vale.

In line with the provisions of item iii above, Valepar s shareholders will receive 1.2065 Vale common shares for each Valepar share held by them. As a result, Vale will issue 173,543,667 new common shares, all registered and without par value, in favor of Valepar s shareholders. Consequently, Valepar s shareholders will own a total of 1,908,980,340 Vale common shares after the merger of Valepar.

At the General Extraordinary Shareholders Meeting, held on June 27, 2017, all resolutions related to the proposal for corporate restructuring of the Company listed above were approved.

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The completion of the Voluntary Conversion and, consequently, of the other stages of the transaction which are the object of the Proposal is now subject to the voluntary conversion by at least 54.09% of class A preferred shares, as mentioned in item i above. The conversion period commenced on June 28, 2017 and ends on August 11, 2017, during which the holders may, if they so wish, join the Voluntary Conversion.

On the date of effectiveness of the merger of Valepar into Vale, if the merger is completed, the Shareholders will execute a new shareholders agreement (Vale Agreement) that will bind only 20% of the totality of Vale s common shares, and will be in force until November 9, 2020, with no provision for renewal.

For 6 months from the date of entry into force of the Vale Agreement, the Shareholders will be obligated not to transfer, by any means, either directly or indirectly, Vale shares they receive as a result of the implementation of the Proposal (Lock-Up), except for (i) the transfer of Vale s shares by the Shareholders to their affiliates and their current shareholders, provided that such transferred shares shall remain subject to the Lock-Up, and (ii) the transfer of shares held by the Shareholders prior to the merger of Valepar.

c) Remuneration to the Company s stockholders

In April 2017, the Annual General Meeting approved the payment of shareholder remuneration for the year of 2016, in the amount of R\$4,667 (US\$1,459). Accordingly, the amount of R\$2,065 (US\$646) related to the Profit Reserve Additional Remuneration Reserve , that was recorded in December 31, 2016, was used to the payment of dividends in the form of interest on shareholders equity, in addition to the amount of R\$2,602 (US\$813), already recorded in the current liabilities.

25. Related parties

Transactions with related parties are made by the Company at arm's-length, observing the price and usual market conditions and therefore do not generate any undue benefit to their counterparties or loss to the Company. The definition of related party is based on applicable accounting standards and our internal policies, which may be more restrictive than applicable laws and regulations under certain circumstances.

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 interim financial statements are as follows.

				Ass	sets			
	~	June 30,	2017		~	December 3	31, 2016	
	Cash and	Derivative		D 1 (1	Cash and	Derivative		D 1 4 1
	cash equivalents	financial instruments	Accounts receivable	Related parties	cash equivalents	financial instruments	Accounts receivable	Related parties
Banco Bradesco S.A.	209	382	receivable	parties	522	324	receivable	parties
Banco do Brasil S.A.	957	24			57	34		
Companhia								
Coreano-Brasileira de								
Pelotização				19				5
Companhia								
Hispano-Brasileira de								
Pelotização							1	
Companhia								
Ítalo-Brasileira de								8
Pelotização Componhio								8
Companhia Nipo-Brasileira de								
Pelotização				14				15
Companhia Siderúrgica				- 1				13
do Pecém			48				37	
Consórcio de								
Rebocadores da Baia de								
São Marcos			8				10	
Mitsui & Co., Ltd.			3				4	
MRS Logística S.A.				38				24
Nacala BV (i)				4,570				
VLI			8	19			9	12
Others	1.166	407	36	23	550	250	46	9 73
Total	1,166	406	103	4,683	579	358	107	13

⁽i) Refers to the balances after the sale of Nacala Corridor business (note 11).

				Liabi	llities			
	Derivative	June 30,	2017		Derivative	December	31, 2016	
	financial instruments	Others liabilities	Related parties	Loans and borrowings	financial instruments	Others liabilities	Related parties	Loans and borrowings
Aliança Geração de Energia S.A.		62				16	38	
Banco Bradesco S.A.	240				250			6
Banco do Brasil S.A.	37			2,127	45			2,568
BNDES	68			4,117	72			4,432
BNDES Participações S.A.				391				414
Companhia Coreano-Brasileira de								
Pelotização		75	38			3	59	
Companhia								
Hispano-Brasileira de			40			20		
Pelotização		61	40			39	14	
Companhia								
Ítalo-Brasileira de		40	40				00	
Pelotização		49	49				99	
Companhia								
Nipo-Brasileira de		132	79			3	146	
Pelotização Ferrovia		132	19			3	140	
Centro-Atlântica S.A.		1	82				83	
Mitsui & Co., Ltd.		38	0.2			17	83	
MRS Logística S.A.		24				25		
Nacala BV (i)		107				23		
Pangea Emirates Ltd		107						
Mitsui (i)			1,133					
Sumic Nickel Netherland			1,133					
B.V							353	
VLI		3	70			3	333	
Others		53	17			38	7	
Total	345	605	1,508	6,635	367	144	799	7,420

⁽i) Refers to the balances after the sale of Nacala Corridor business (note 11).

	Three month period ended June 30,								
	N T 4	2017		NY 4	2016				
	Net	Costs and	Financial	Net	Costs and	Financial			
	operating revenue	expenses	result	operating revenue	expenses	result			
Aliança Geração de Energia S.A.	8	(38)							
Banco Bradesco S.A. (i)			32			152			
Banco do Brasil S.A. (i)			(133)			(46)			
Baovale Mineração S.A.		(4)			(5)				
BNDES (i)			(113)			(105)			
BNDES Participações S.A. (i)			(14)			(14)			
Companhia Coreano-Brasileira de									
Pelotização		(39)	(1)		(18)				

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Companhia Hispano-Brasileira de						
Pelotização		(30)	(1)		(9)	
Companhia Ítalo-Brasileira de						
Pelotização		(36)	(2)		(12)	
Companhia Nipo-Brasileira de						
Pelotização		(67)	(3)		(20)	
Companhia Siderúrgica do						
Atlântico					(6)	
Companhia Siderúrgica do Pecém	52	(41)		15		
Ferrovia Centro-Atlântica S.A.	12	(7)		11	(7)	
Ferrovia Norte Sul S.A.	7			6		
Mitsui & Co., Ltd.	35	(6)		42		
MRS Logística S.A.		(147)			(139)	
Nacala BV (i)		(94)	67			
Pangea Emirates Ltd Mitsui (i)			(48)			
Samarco Mineração S.A.			14			
VLI	61			71	(3)	
Others	8	(1)	(2)	1	(8)	
Total	183	(510)	(204)	146	(227)	(13)

⁽i) Does not include exchange rate variation.

	Six month period ended June 30,						
		2017	-		2016		
	Net	a	***	Net	a		
	operating revenue	Costs and expenses	Financial result	operating revenue	Costs and expenses	Financial result	
Aliança Geração de Energia S.A.	11	(62)	resuit	Tevenue	expenses	Tesuit	
Banco Bradesco S.A. (i)		(*)	74			134	
Banco do Brasil S.A. (i)			(199)			(82)	
Baovale Mineração S.A.		(8)	` ,		(8)		
BNDES (i)			(167)			(151)	
BNDES Participações S.A. (i)			(21)			(20)	
California Steel Industries, Inc.	36						
Companhia Coreano-Brasileira de							
Pelotização		(74)	(3)		(35)		
Companhia Hispano-Brasileira de							
Pelotização		(59)	(3)		(19)		
Companhia Ítalo-Brasileira de							
Pelotização		(54)	(5)		(22)		
Companhia Nipo-Brasileira de							
Pelotização		(128)	(7)		(52)		
Companhia Siderúrgica do							
Atlântico					(6)		
Companhia Siderúrgica do Pecém	128	(88)		32			
Ferrovia Centro-Atlântica S.A.	20	(15)		19	(12)		
Ferrovia Norte Sul S.A.	12			11			
Mitsui & Co., Ltd.	65	(12)		62			
MRS Logística S.A.		(259)			(202)		
Nacala BV (i)		(94)	67				
Pangea Emirates Ltd Mitsui (i)			(48)				
Samarco Mineração S.A.	14		12				
VLI	131			127	(3)		
Others	13	(2)	(9)	10	(18)		
Total	430	(855)	(309)	261	(377)	(119)	

⁽i) Does not include exchange rate variation.

26. Commitments

a) Participative stockholders debentures

In April, 2017, the Company approved the semiannual remuneration to stockholders debentures the amount of R\$241 (US\$77).

b) Guarantees provided

As of June 30, 2017, corporate guarantees provided by Vale (within the limit of its direct or indirect interest) for the companies Norte Energia S.A. and Companhia Siderúrgica do Pecém S.A. totaled US\$368 and US\$1,480, respectively and in December 31, 2016 totaled US\$361 and US\$1.450, respectively.

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27. Additional information about derivatives financial instruments

a) 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, 2017
- 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	(100)	(503)	(907)
	US\$ interest rate inside Brazil decrease	(100)	(113)	(127)
	Brazilian interest rate increase	(100)	(102)	(105)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
TJLP vs. US\$ fixed rate swap	R\$ depreciation	(507)	(911)	(1,314)
	US\$ interest rate inside Brazil decrease	(507)	(525)	(543)
	Brazilian interest rate increase	(507)	(543)	(575)
	TJLP interest rate decrease	(507)	(536)	(564)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
TJLP vs. US\$ floating rate swap	R\$ depreciation	(56)	(87)	(119)
	US\$ interest rate inside Brazil decrease	(56)	(58)	(60)
	Brazilian interest rate increase	(56)	(59)	(61)
	TJLP interest rate decrease	(56)	(58)	(60)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
R\$ fixed rate vs. US\$ fixed rate swap	R\$ depreciation	(1)	(88)	(175)
	US\$ interest rate inside Brazil decrease	(1)	(11)	(22)
	Brazilian interest rate increase	(1)	(25)	(47)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.	(==)	(,
IPCA vs. US\$ fixed rate swap	R\$ depreciation	(53)	(167)	(282)

	US\$ interest rate inside Brazil decrease	(53)	(58)	(64)
	Brazilian interest rate increase	(53)	(73)	(92)
	IPCA index decrease	(53)	(63)	(72)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.		
IPCA vs. CDI swap	Brazilian interest rate increase	48	11	(22)
	IPCA index decrease	48	30	13
Protected item: R\$ denominated debt				
linked to IPCA	IPCA index decrease	n.a.	(30)	(13)
EUR fixed rate vs. US\$ fixed rate swap	EUR depreciation	(11)	(183)	(355)
	Euribor increase	(11)	(19)	(27)
	US\$ Libor decrease	(11)	(28)	(46)
Protected item: EUR denominated debt	EUR depreciation	n.a.	183	355

Instrument	Instrument s main risk events	Scenario I	Scenario II	Scenario III
Bunker Oil protection				
Forwards and options	Bunker Oil price decrease	25	(45)	(186)
Protected item: Part of costs linked to				
bunker oil prices	Bunker Oil price decrease	n.a.	45	186
Nickel sales fixed price protection				
Forwards	Nickel price decrease	0	(26)	(52)
Protected item: Part of nickel revenues				
with fixed prices	Nickel price fluctuation	n.a.	26	52
Purchase protection program				
Nickel forwards	Nickel price increase	(0,3)	(2,2)	(4,1)
Protected item: Part of costs linked to				
nickel prices	Nickel price increase	n.a.	2,2	4,1
Copper forwards	Copper price increase	(0,0)	(0,3)	(0,6)
Protected item: Part of costs linked to				
copper prices	Copper price increase	n.a.	0,3	0,6
SLW warrants	SLW stock price decrease	46	25	9
Conversion options - VLI	VLI stock value increase	(68)	(103)	(144)
0.41	MDD - 1 1 1	150	106	
Options - MBR	MBR stock value decrease	172	106	57
_				
Instrument	Main risks	Scenario I	Scenario II	Scenario III
Embedded desirenting - Demonstrated				
Embedded derivatives - Raw material	Ni-l-1 in-man	(1.2)	(0)	(15)
purchase (nickel) Embedded derivatives - Raw material	Nickel price increase	(1,2)	(8)	(15)
	Common muios in angeses	0	(4)	(9)
purchase (copper) Embedded derivatives - Gas purchase	Copper price increase Pellet price increase	(3)	(4)	(8) (12)
Embedded derivatives - Gas purchase Embedded derivatives - Guaranteed	Tener price increase	(3)	(1)	(12)
	VLI stock value decrease	(176)	(314)	(500)
minimum return (VLI)	VILI STOCK VALUE DECICASE	(170)	(314)	(300)

b) 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, 2017.

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Long term ratings by counterparty	Moody s	S&P
ANZ Australia and New Zealand Banking	Aa3	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	A3	A-
Banco Votorantim	Ba3	BB
Bank of America	Baa1	BBB+
Bank of China	A1	A
Bank of Nova Scotia	A1	A+
Bank of Tokyo Mitsubishi UFJ	A1	A
Banpara		BB-
Barclays	Baa2	BBB
BNP Paribas	A1	A
BTG Pactual	Ba3	BB-
Caixa Economica Federal	Ba3	BB
Citigroup	Baa1	BBB+
Deutsche Bank	A3	A-
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	Aa3	AA-
Societe Generale	A2	A
Standard Bank Group	Ba1	
Standard Chartered	A2	BBB+

c) Market curves

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

(i) Products

Nickel

Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)
SPOT	9.280	DEC17	9.449	JUN18	9.554
JUL17	9.363	JAN18	9.468	JUN19	9.750
AUG17	9.379	FEB18	9.485	JUN20	9.911
SEP17	9.393	MAR18	9.504	JUN21	10.043
OCT17	9.412	APR18	9.522		
NOV17	9.431	MAY18	9.539		

Copper

Maturity	Price (US\$/lb)	Maturity	Price (US\$/lb)	Maturity	Price (US\$/lb)
SPOT	2,70	DEC17	2,70	JUN18	2,71
JUL17	2,69	JAN18	2,71	JUN19	2,72
AUG17	2,69	FEB18	2,71	JUN20	2,72
SEP17	2,70	MAR18	2,71	JUN21	2,72
OCT17	2,70	APR18	2,71		
NOV17	2,70	MAY18	2,71		

Bunker Oil

Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)
SPOT	294	DEC17	291	JUN18	290
JUL17	295	JAN18	290	JUN19	292
AUG17	296	FEB18	290	JUN20	280
SEP17	294	MAR18	289	JUN21	276

OCT17	292	APR18	290
NOV17	291	MAY18	290

(ii) Foreign exchange and interest rates

US\$-Brazil Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
08/01/17	2,58	06/01/18	2,37	10/01/20	3,18
09/01/17	2,17	07/02/18	2,38	01/04/21	3,29
10/02/17	2,20	10/01/18	2,48	04/01/21	3,36
11/01/17	2,19	01/02/19	2,59	07/01/21	3,45
12/01/17	2,19	04/01/19	2,65	10/01/21	3,51
01/02/18	2,25	07/01/19	2,72	01/03/22	3,65
02/01/18	2,22	10/01/19	2,80	04/01/22	3,73
03/01/18	2,27	01/02/20	2,91	07/01/22	3,86
04/02/18	2,30	04/01/20	2,99	01/02/23	4,09
05/02/18	2,32	07/01/20	3,09	01/02/24	4,49

US\$ Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
1M	1,23	6M	1,40	11M	1,45
2M	1,26	7M	1,42	12M	1,45
3M	1,30	8M	1,43	2Y	1,64
4M	1,35	9M	1,44	3Y	1,79
5M	1,38	10M	1,44	4Y	1,93

TJLP

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
08/01/17	7,00	06/01/18	7,00	10/01/20	7,00
09/01/17	7,00	07/02/18	7,00	01/04/21	7,00
10/02/17	7,00	10/01/18	7,00	04/01/21	7,00
11/01/17	7,00	01/02/19	7,00	07/01/21	7,00
12/01/17	7,00	04/01/19	7,00	10/01/21	7,00
01/02/18	7,00	07/01/19	7,00	01/03/22	7,00
02/01/18	7,00	10/01/19	7,00	04/01/22	7,00
03/01/18	7,00	01/02/20	7,00	07/01/22	7,00
04/02/18	7,00	04/01/20	7,00	01/02/23	7,00
05/02/18	7,00	07/01/20	7,00	01/02/24	7,00

BRL Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
08/01/17	10,03	06/01/18	8,75	10/01/20	9,98
09/01/17	9,65	07/02/18	8,77	01/04/21	10,08
10/02/17	9,38	10/01/18	8,84	04/01/21	10,17
11/01/17	9,22	01/02/19	8,91	07/01/21	10,26
12/01/17	9,07	04/01/19	9,06	10/01/21	10,32
01/02/18	8,94	07/01/19	9,23	01/03/22	10,36
02/01/18	8,87	10/01/19	9,41	04/01/22	10,41
03/01/18	8,84	01/02/20	9,56	07/01/22	10,45
04/02/18	8,79	04/01/20	9,70	01/02/23	10,54
05/02/18	8,77	07/01/20	9,85	01/02/24	10,64

Implicit Inflation (IPCA)

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
08/01/17	4,88	06/01/18	3,66	10/01/20	4,43
09/01/17	4,52	07/02/18	3,68	01/04/21	4,45
10/02/17	4,26	10/01/18	3,94	04/01/21	4,49
11/01/17	4,11	01/02/19	4,14	07/01/21	4,52
12/01/17	3,96	04/01/19	4,19	10/01/21	4,54
01/02/18	3,84	07/01/19	4,28	01/03/22	4,54
02/01/18	3,78	10/01/19	4,30	04/01/22	4,57
03/01/18	3,75	01/02/20	4,33	07/01/22	4,59
04/02/18	3,70	04/01/20	4,34	01/02/23	4,65
05/02/18	3,68	07/01/20	4,39	01/02/24	4,72

EUR Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
1M	-0,40	6M	-0,28	11M	-0,24
2M	-0,39	7M	-0,27	12M	-0,23
3M	-0,37	8M	-0,26	2Y	-0,12
4M	-0,33	9M	-0,25	3Y	0,01
5M	-0,30	10M	-0,24	4Y	0,14

CAD Interest Rate

Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
1M	0,98	6M	1,25	11 M	0,69
2M	1,03	7M	1,08	12M	0,64
3M	1,07	8M	0,96	2Y	1,44
4M	1,16	9M	0,85	3Y	1,59
5M	1,22	10M	0,76	4Y	1,71

Currencies - Ending rates

CAD/US\$	0,7701	US\$/BRL		3,3082	EUR/US\$	1,1430
			46			
			70			

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

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Francisco Ferreira Alexandre

Robson Rocha

Luiz Mauricio Leuzinger Yoshitomo Nishimitsu

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Executive Officer (Finance and Investors Relations)

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

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Date: July 27, 2017

Signatures

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

Vale S.A. (Registrant)

By:

/s/ Andre Figueiredo Andre Figueiredo

Director of Investor Relations