Vale S.A. Form 6-K February 26, 2015 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

February, 2015

Vale S.A.

Avenida Graça Aranha, No. 26 20030-900 Rio de Janeiro, RJ, Brazil

(Address of principal executive office)

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

(Check One) Form 20-F x Form 40-F o
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1)
(Check One) Yes o No x
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7)
(Check One) Yes o No x
Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.
(Check One) Yes o No x
If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule $12g3-2(b)$ . 82-

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December 31, 2014		
IFRS		
		Filed with the CVM, SEC and HKEx on
		February 26, 2015
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# Vale S.A.

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## Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of

Vale S.A.

Rio de Janeiro RJ

We have audited the accompanying consolidated balance sheet of Vale S.A. and subsidiaries ( Vale or the Company ) as of December 31, 2014, and the related consolidated statements of income, comprehensive income, stockholders equity and cash flows for the year then ended. We also have audited Vale s internal control over financial reporting as of December 31, 2014, based on criteria established in *Internal Control Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Vale s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the Vale s internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audit of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provide a reasonable basis for our opinion.

A company s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable

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assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company s assets that could have a material effect on the financial statements.
Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.
In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Vale S.A. and subsidiaries as of December 31, 2014, and the results of its operations and its cash flows for the year then ended, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, Vale maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on criteria established in <i>Internal Control Integrated Framework</i> (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).
The accompanying consolidated balance sheet of Vale S.A. as of December 31, 2013 and the related consolidated statements of income, comprehensive income, stockholders—equity and cash flows for each of the years ended December 31, 2013 and 2012, were audited by other auditors whose report thereon dated February 26, 2014, expressed an unqualified opinion on those statements.
/s/ KPMG Auditores Independentes
KPMG Auditores Independentes
Rio de Janeiro, Brazil
February 25, 2015

## **Consolidated Balance Sheet**

# In millions of United States dollars

	Notes	December 31, 2014	December 31, 2013
Assets			
Current assets			
Cash and cash equivalents	8	3,974	5,321
Financial investments		148	3
Derivative financial instruments	24	166	201
Accounts receivable	9	3,275	5,703
Related parties	31	579	261
Inventories	10	4,501	4,125
Prepaid income taxes		1,581	2,375
Recoverable taxes	11	1,700	1,579
Advances to suppliers		96	125
Others		574	918
		16,594	20,611
Non-current assets held for sale and discontinued operation	6	3,640	3,766
		20,234	24,377
Non-current assets			
Related parties	31	35	108
Loans and financing agreements receivable		229	241
Judicial deposits	18	1,269	1,490
Recoverable income taxes		478	384
Deferred income taxes	20	3,976	4,523
Recoverable taxes	11	401	285
Derivative financial instruments	24	87	140
Deposit on incentive and reinvestment		68	191
Others		637	738
		7,180	8,100
Investments	12	4,133	3,584
Intangible assets, net	13	6,820	6,871
Property, plant and equipment, net	14	78,122	81,665
		96,255	100,220
Total		116,489	124,597

## **Consolidated Balance Sheet**

## In millions of United States dollars

(continued)

	Notes	December 31, 2014	December 31, 2013
Liabilities			
Current liabilities			
Suppliers and contractors		4,354	3,772
Payroll and related charges		1,163	1,386
Derivative financial instruments	24	1,416	238
Loans and financing	16	1,419	1,775
Related parties	31	306	205
Income taxes settlement program	19	457	470
Taxes payable and royalties		550	327
Provision for income taxes		353	378
Employee postretirement obligations	21	(a) 67	97
Asset retirement obligations	17	136	96
Others		405	420
		10,626	9,164
Liabilities directly associated with non-current assets held for sale and			
discontinued operation	6	111	448
		10,737	9,612
Non-current liabilities			
Derivative financial instruments	24	,	1,492
Loans and financing	16	27,388	27,670
Related parties	31	109	5
Employee postretirement obligations	21	. ,	2,198
Provisions for litigation	18	· · · · · · · · · · · · · · · · · · ·	1,276
Income taxes settlement program	19	- ,	6,507
Deferred income taxes	20		3,228
Asset retirement obligations	17	-,	2,548
Participative stockholders debentures	30	` '	1,775
Redeemable noncontrolling interest		243	276
Gold stream transaction	29	-,	1,497
Others		1,077	1,577
		49,431	50,049
Total liabilities		60,168	59,661
Stockholders equity	25		
Preferred class A stock - 7,200,000,000 no-par-value shares authorized and			
2,027,127,718 (2,108,579,618 in 2013) shares issued		23,089	22,907

Common stock - 3,600,000,000 no-par-value shares authorized and			
3,217,188,402 (3,256,724,482 in 2013) shares issued		38,525	37,671
Treasury stock - 59,405,792 (140,857,692 in 2013) preferred and 31,535,402			
(71,071,482 in 2013) common shares		(1,477)	(4,477)
Results from operations with noncontrolling stockholders		(449)	(400)
Results on conversion of shares		(152)	(152)
Unrealized fair value gain (losses)		(1,713)	(1,202)
Cumulative translation adjustments		(22,686)	(20,588)
Profit reserves		19,985	29,566
Total company stockholders equity		55,122	63,325
Noncontrolling stockholders interests	12	1,199	1,611
Total stockholders equity		56,321	64,936
Total liabilities and stockholders equity		116,489	124,597

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

## **Consolidated Statement of Income**

# In millions of United States dollars, except as otherwise stated

		December 31,			
	Notes	2014	2013	2012	
Continuing operations					
Net operating revenue	26	37,539	46,767	46,553	
Cost of goods sold and services rendered	27(a)	(25,064)	(24,245)	(25,390)	
Gross profit		12,475	22,522	21,163	
Operating (expenses) income					
Selling and administrative expenses	27(b)	(1,099)	(1,302)	(2,172)	
Research and evaluation expenses		(734)	(801)	(1,465)	
Pre operating and stoppage operation		(1,088)	(1,859)	(1,592)	
Other operating expenses, net	27(c)	(1,057)	(984)	(1,996)	
		(3,978)	(4,946)	(7,225)	
Impairment of non-current assets	15	(1,152)	(2,298)	(4,023)	
Loss on measurement or sales of non-current assets	7	(167)	(215)	(506)	
Operating income		7,178	15,063	9,409	
Financial income	28	3,770	2,699	1,595	
Financial expenses	28	(9,839)	(11,031)	(5,617)	
Equity results from joint ventures and associates	12	505	469	645	
Results on sale or disposal of investments from					
joint ventures and associates	7	(30)	41		
Impairment of investment from joint ventures and					
associates	15	(31)		(1,941)	
Net income before income taxes		1,553	7,241	4,091	
Income taxes	20				
Current tax		(1,051)	(7,786)	(2,503)	
Deferred tax		(149)	953	3,677	
		(1,200)	(6,833)	1,174	
Net income from continuing operations		353	408	5,265	
Loss attributable to noncontrolling interests		(304)	(178)	(257)	
Net income from continuing operations					
attributable to the Company s stockholders		657	586	5,522	
Discontinued operations					
Loss from discontinued operations			(2)	(68)	
Loss from discontinued operations attributable					
to the Company s stockholders			(2)	(68)	

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Net income		353	406	5,197
Loss attributable to noncontrolling interests	(304)	(178)	(257)	
Net income attributable to the Company s				
stockholders	657	584	5,454	
Earnings per share attributable to the				
Company s stockholders:	25(e)			
Basic and diluted earnings per share:				
Preferred share (USD)		0.13	0.11	1.06
Common share (USD)		0.13	0.11	1.06

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

# **Consolidated Statement of Comprehensive Income**

## In millions of United States dollars

	Year 2014	ended as at December 31, 2013	2012
Net income	353	406	5,197
Other comprehensive income			·
Item that will not be reclassified subsequently to income			
Cumulative translation adjustments	(7,436)	(9,830)	(7,695)
Retirement benefit obligations			
Gross balance for the year	(279)	914	(929)
Effect of taxes	85	(284)	274
Equity results from joint ventures and associates, net taxes	2		
	(192)	630	(655)
Total items that will not be reclassified subsequently to income	(7,628)	(9,200)	(8,350)
Item that will be reclassified subsequently to income			
Cumulative translation adjustments			
Gross balance for the year	3,407	2.822	5,290
Transfer results realized to the net income	2,107	435	117
	3,407	3,257	5,407
Available-for-sale financial instruments			
Gross balance for the year	(4)	193	(1)
Transfer results realized to the net income	(4)	(194)	(1)
Transfer results realized to the net income	4	(194)	(1)
		(1)	(1)
Cash flow hedge			
Gross balance for the year	(290)	(23)	(273)
Effect of taxes	(3)	12	(8)
Equity results from joint ventures and associates, net taxes	(1)		13
Transfer of realized results to income, net of taxes	(122)	(40)	147
	(416)	(51)	(121)
Total of items that will be reclassified subsequently to income	2,991	3,205	5,285
Total comprehensive income (loss)	(4,284)	(5,589)	2,132
Comprehensive loss attributable to noncontrolling interests	(330)	(175)	(223)
Comprehensive income (loss) attributable to the Company s			
stockholders	(3,954)	(5,414)	2,355
	(4,284)	(5,589)	2,132

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

# 

## In millions of United States dollars

	Capital	Results on conversion of shares	Mandatorily convertible notes	Results from operation with noncontrolling stockholders	Profit reserves	Treasury stock	Unrealized fair value gain (losses)			Total Company stockholder equity	Noncontrolling s stockholders interests
December 31, 2011	60 E70		613	7	41,805	(E 663)	(752)	(20.411)	(77)	76 100	1.71
Net income	60,578		013	7	41,805	(5,662)	(753)	(20,411)	) (77) 5,454	76,100 5,454	1,71: (25)
Other comprehensive income:									3,434	3,434	(23)
Retirement benefit							(655)			<i>((55</i>	
obligations							(655)			(655)	
Cash flow hedge Available-for-sale							(121)			(121)	)
financial instruments							(1)	1		(1)	)
Translation							(-)			(-)	
adjustments					(3,585)	)	(26)	1,748	(459)	(2,322)	) 34
Contribution and distribution to stockholders:											
Acquisitions and											
disposal of											
noncontrolling											
stockholders				(407)	)					(407)	) (54
Additional remuneration for mandatorily											
convertible notes			(68)	)						(68)	)
Capitalization of noncontrolling stockholders											
advances											43
Realization of reserves					(362)	)			362		
Results on											
conversion of		,				4.40-	,				
shares		(152)	2) (545)	1		1,185	(488)				
Redeemable noncontrolling stockholders interest											183
Dividends to											10.
noncontrolling stockholders											(74
									(4,741)	(4,741)	

Dividends and interest on capital										
to Company s stockholders										
Appropriation to undistributed										
retained earnings				531				(531)		
December 31,										
2012	60,578	(152)	(400)	38,389	(4,477)	(2,044)	(18,663)	8	73,239	1,588
Net income								584	584	(178
Other										
comprehensive										
income: Retirement										
benefit										
obligations						630			630	
Cash flow hedge						(51)			(51)	
Available-for-sale						(- )			(- )	
financial										
instruments						(1)			(1)	
Translation										
adjustments				(4,901)		264	(1,925)	(14)	(6,576)	
Contribution and distribution										
to stockholders:										
Capitalization of										
noncontrolling										
stockholders										
advances										78
Realization of										
reserves				(3,936)				3,936		
Redeemable noncontrolling										
stockholders										
interest										211
Dividends to										
noncontrolling stockholders										(9)
Dividends and										
interest on capital										
to Company s stockholders								(4,500)	(4,500)	
Appropriation to								(4,500)	(4,500)	
undistributed										
retained earnings				14				(14)		
December 31,										
2013	60,578	(152)	(400)	29,566	(4,477)	(1,202)	(20,588)		63,325	1,611
Net income								657	657	(304
Other comprehensive										
income:										
Retirement										
benefit										
obligations						(192)			(192)	
Cash flow hedge						(416)			(416)	
Translation				(2.225)		0.7	(2.000)	225	(4.000)	<b>,</b>
adjustments  Contribution				(2,237)		97	(2,098)	235	(4,003)	(26
and distribution										
to stockholders:										
Acquisitions and										
disposal of										
noncontrolling										
stockholders			(49)						(49)	(201
Cancellation of treasury stock				(3,000)	3,000					
Capitalization of				(3,000)	5,000					
noncontrolling										
stockholders										
advances										127

2014	61,614	(152)	(449)	19,985	(1,477)	(1,713)	(22,686)		55,122	1,19
December 31,										
retained earnings				79				(79)		
undistributed										
Appropriation to										
stockholders								(4,200)	(4,200)	
to Company s										
interest on capital										
Dividends and										
stockholders										(8
noncontrolling										
Dividends to										
reserves				(3,387)				3,387		
Realization of										
reserves	1,036			(1,036)						
Capitalization of										

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

## **Consolidated Statement of Cash Flow**

## In millions of United States dollars

	2014	Year ended as at December 31, 2013	2012
Cash flow from continuing operating activities:	2011	2010	2012
Net income from continuing operations	353	408	5,265
Adjustments to reconcile net income with cash from continuing			-,
operations			
Equity results from associates and joint ventures	(505)	(469)	(645)
Loss on measurement or sales of non-current assets	167	215	506
Results on sale or disposal of investments from joint ventures and			
associates	30	(41)	
Loss on disposal of property, plant and equipment and intangibles	91	96	40
Impairment of non-current assets	1,183	2,298	5,964
Depreciation, amortization and depletion	4,288	4,150	4,155
Deferred income taxes	149	(953)	(3,677)
Foreign exchange and indexation, net	1,270	724	1,314
Unrealized derivative losses, net	1,155	791	613
Participative stockholders debentures	315	368	109
Other	347	74	(452)
Decrease (increase) in assets:			
Accounts receivable	2,546	608	1,951
Inventories	(535)	346	(675)
Recoverable taxes	11	(2,405)	229
Other	738	(132)	537
Increase (decrease) in liabilities:			
Suppliers and contractors	1,013	(124)	(229)
Payroll and related charges	(77)	59	170
Taxes and contributions	113	843	(163)
Gold stream transaction		1,319	
Income taxes - settlement program	188	7,030	
Other	(33)	(663)	709
Net cash provided by operating activities from continuing			
operations	12,807	14,542	15,721
Net cash provided by operating activities from discontinued operations		250	414
Net cash provided by operating activities	12,807	14,792	16,135
Cash flow from continuing investing activities:			
Financial investments redeemed (invested)	(148)	357	(246)
Loans and advances received (granted)	364	(17)	293
Guarantees and deposits received (granted)	59	(147)	(135)
Additions to investments	(244)	(378)	(474)
Additions to property, plant and equipment and intangible assets	(11,813)	(13,105)	(15,322)

Dividends and interest on capital received from associates and joint			
ventures	568	834	460
Proceeds from disposal of assets and Investments	1,246	2,030	974
Proceeds from gold stream transaction		581	
Net cash used in investing activities from continuing operations	(9,968)	(9,845)	(14,450)
Net cash used in investing activities from discontinued operations		(763)	(437)
Net cash used in investing activities	(9,968)	(10,608)	(14,887)
Cash flow from continuing financing activities:			
Loans and financing			
Additions	2,341	3,310	9,333
Repayments	(1,936)	(3,347)	(1,712)
Repayments to stockholders:			
Dividends and interest on capital paid to stockholders	(4,200)	(4,500)	(6,000)
Dividends and interest on capital attributed to noncontrolling interest	(66)	(20)	(45)
Transactions with noncontrolling stockholders			(411)
NI-4			
Net cash provided by (used in) financing activities from continuing			
operations	(3,861)	(4,557)	1,165
	(3,861)	( <b>4,557</b> ) 87	1,165
operations	(3,861)	` ′ ′	1,165 1,165
operations  Net cash provided by financing activities from discontinued operations		87	ŕ
operations  Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents  Cash and cash equivalents in the beginning of the year	(3,861)	87 ( <b>4,470</b> )	1,165
operations  Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents	( <b>3,861</b> ) (1,022)	87 ( <b>4,470</b> ) (286)	1,165 2,413 3,531 (112)
operations  Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents  Cash and cash equivalents in the beginning of the year  Effect of exchange rate changes on cash and cash equivalents  Cash and cash equivalents at end of the year	(3,861) (1,022) 5,321	87 ( <b>4,470</b> ) (286) 5,832	<b>1,165</b> 2,413 3,531
operations  Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents  Cash and cash equivalents in the beginning of the year  Effect of exchange rate changes on cash and cash equivalents	(3,861) (1,022) 5,321 (325)	87 ( <b>4,470</b> ) (286) 5,832 (225)	1,165 2,413 3,531 (112)
operations  Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents  Cash and cash equivalents in the beginning of the year  Effect of exchange rate changes on cash and cash equivalents  Cash and cash equivalents at end of the year	(3,861) (1,022) 5,321 (325)	87 ( <b>4,470</b> ) (286) 5,832 (225)	1,165 2,413 3,531 (112)
operations  Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents  Cash and cash equivalents in the beginning of the year  Effect of exchange rate changes on cash and cash equivalents  Cash and cash equivalents at end of the year  Cash paid during the year for (i):	(3,861) (1,022) 5,321 (325) 3,974	87 (4,470) (286) 5,832 (225) 5,321	1,165 2,413 3,531 (112) 5,832
operations  Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents  Cash and cash equivalents in the beginning of the year  Effect of exchange rate changes on cash and cash equivalents  Cash and cash equivalents at end of the year  Cash paid during the year for (i):  Interest on loans and financing	(3,861) (1,022) 5,321 (325) 3,974	87 (4,470) (286) 5,832 (225) 5,321	1,165 2,413 3,531 (112) 5,832
operations  Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents  Cash and cash equivalents in the beginning of the year  Effect of exchange rate changes on cash and cash equivalents  Cash and cash equivalents at end of the year  Cash paid during the year for (i):  Interest on loans and financing  Income taxes	(3,861) (1,022) 5,321 (325) 3,974 (1,560) (504)	87 (4,470) (286) 5,832 (225) 5,321 (1,535) (2,405)	1,165 2,413 3,531 (112) 5,832
Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents  Cash and cash equivalents in the beginning of the year  Effect of exchange rate changes on cash and cash equivalents  Cash and cash equivalents at end of the year  Cash paid during the year for (i):  Interest on loans and financing  Income taxes  Income taxes - settlement program	(3,861) (1,022) 5,321 (325) 3,974 (1,560) (504)	87 (4,470) (286) 5,832 (225) 5,321 (1,535) (2,405)	1,165 2,413 3,531 (112) 5,832
Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents  Cash and cash equivalents in the beginning of the year  Effect of exchange rate changes on cash and cash equivalents  Cash and cash equivalents at end of the year  Cash paid during the year for (i):  Interest on loans and financing  Income taxes  Income taxes - settlement program  Non-cash transactions:	(3,861) (1,022) 5,321 (325) 3,974 (1,560) (504) (494)	87 (4,470) (286) 5,832 (225) 5,321 (1,535) (2,405) (2,594)	1,165 2,413 3,531 (112) 5,832 (1,316) (1,238)
Net cash provided by financing activities from discontinued operations  Net cash provided by (used in) used in financing activities  Increase (decrease) in cash and cash equivalents  Cash and cash equivalents in the beginning of the year  Effect of exchange rate changes on cash and cash equivalents  Cash and cash equivalents at end of the year  Cash paid during the year for (i):  Interest on loans and financing  Income taxes  Income taxes - settlement program  Non-cash transactions:  Additions to property, plant and equipment - interest capitalization	(3,861) (1,022) 5,321 (325) 3,974 (1,560) (504) (494)	87 (4,470) (286) 5,832 (225) 5,321 (1,535) (2,405) (2,594)	1,165 2,413 3,531 (112) 5,832 (1,316) (1,238)

<sup>(</sup>i) Amounts paid are classified as cash flows from operating activities.

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

## **Notes to Consolidated Financial Statements**

Expressed in millions of United States dollar, unless otherwise stated

## 1. Operational context

Vale S.A. (the Parent Company ) is a public company headquartered at 26, Av. Graça Aranha, Rio de Janeiro, Brazil with securities traded on the stock exchanges of São Paulo ( BM&F BOVESPA ), New York ( NYSE ), Paris ( NYSE Euronext ) and Hong Kong ( HKEx ).

Vale S.A. and its direct and indirect subsidiaries (Vale, Group or Company) are principally engaged in the research, production and sale of iron ore and pellets, nickel, fertilizer, copper, coal, manganese, ferroalloys, cobalt, platinum group metals and precious metals. The Company also operates in the segments of energy and steel. The information by segment is presented in note 26.

The principal consolidated operating subsidiaries of the Company at December 31, 2014 were as follow:

Entities	% ownership	% voting capital	Location	Principal activity
Compañia Minera Miski Mayo S.A.C	40.00	51.00	Peru	Fertilizers
Mineração Corumbaense Reunida S.A.	100.00	100.00	Brazil	Iron ore and manganese
PT Vale Indonesia Tbk	59.20	59.20	Indonesia	Nickel
Salobo Metais S.A.	100.00	100.00	Brazil	Copper
Vale Australia Pty Ltd.	100.00	100.00	Australia	Coal
Vale Canada Limited	100.00	100.00	Canada	Nickel
Vale Fertilizantes S.A	100.00	100.00	Brazil	Fertilizers
Vale International Holdings GmbH	100.00	100.00	Austria	Holding and research
Vale International S.A	100.00	100.00	Switzerland	Trading
Vale Manganês S.A.	100.00	100.00	Brazil	Manganese and ferroalloys
Vale Moçambique S.A.	95.00	95.00	Mozambique	Coal
Vale Nouvelle-Calédonie S.A.S.	80.50	80.50	New Caledonia	Nickel
Vale Oman Pelletizing Company LLC	70.00	70.00	Oman	Pellet
Vale Shipping Holding Pte Ltd.	100.00	100.00	Singapore	Logistics of iron ore

## 2. Summary of the main accounting practices and accounting estimates

## a) Basis of presentation

The consolidated financial statements of the Company (financial statements) have been prepared in accordance with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

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

All numbers of the comparative financial statements of 2012 have been adjusted as a result of a change in accounting practices, disclosed in note 6 of the financial statements of 2013.

The Company evaluated subsequent events through February 25, 2015, which was the date the financial statement was approved by the Board of Directors.

## b) Functional currency and presentation currency

The financial statements of each of the Group s entities 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 financial statements are presented in United States dollar (USD or US\$) as the Company believes that this is how international investors analyze the financial statements.

Operations in other currencies are translated into the functional currency using the actual exchange rates in force on the respective transactions dates. The foreign exchange gains and losses resulting from the translation at the exchange rates in force at the end of the year are recognized in the statement of income as financial expense or financial income. The exceptions are transactions for which gains and losses are recognized in the statement of comprehensive income.

The statement of income and balance sheet of the Group's entities whose functional currency is different from the presentation currency are translated into the presentation currency as follows: (i) assets, liabilities and stockholders equity (except components described in item (iii)) for each balance sheet presented are translated at the closing rate at the balance sheet date; (ii) income and expenses for each statement of income are translated at the average exchange rates, except for specific transactions that, considering their significance, are translated at the rate at the transaction date and; (iii) capital, capital reserves and treasury stock are translated at the rate at the date of each transaction. All resulting exchange differences are recognized in a separate component of the statement of comprehensive income as cumulative translation adjustment, and subsequently transferred to the statement of income when the operations are realized.

The exchange rates of the major currencies that impact the operations are:

	(	Closing rate as of		Average	rate for the year en	ded
	2014	2013	2012	2014	2013	2012
US dollar ( US\$ )	2.6562	2.3426	2.0435	2.3547	2.1605	1.9546
Canadian dollar ( CAD )	2.2920	2.2031	2.0546	2.1308	2.0954	1.9558
Australian dollar ( AUD )	2.1765	2.0941	2.1197	2.1205	2.0821	2.0233
Euro ( EUR or )	3.2270	3.2265	2.6954	3.1205	2.8716	2.5114

## c) Consolidation and investments

The financial statements reflect the balance of assets and liabilities and the transactions of the Parent Company and its direct and indirect controlled entities (subsidiaries), eliminating intercompany transactions. Subsidiaries over which control is achieved through other means, such as stockholders agreement, are also consolidated even if the Company does not own a majority of the voting capital.

For entities over which the Company has joint control ( joint ventures ) or significant influence, but not control ( associates ), the investments are measured using the equity method.

The accounting practices of subsidiaries, joint ventures and associated companies are set to ensure consistency with the policies adopted by the Parent Company. Transactions between consolidated companies, as well as balances, unrealized profits and losses on these transactions are eliminated. Unrealized gains on downstream or upstream transactions between the Company and its associates and joint ventures are eliminated fully or proportionately to the extent of the Company.

The Company compares the carrying values of its equity investments with reference to the publicly quoted market prices when available. If the quoted market price is lower than book value and this decline is considered other than temporary, the Company accounts an impairment of the equity investments to the level of the quoted market value.

For interests in joint arrangements operations ( joint operations ), the Company recognizes its share of assets, liabilities and transactions.

## d) Business combinations

When the Company acquires control over an entity, the identifiable assets acquired, the liabilities and contingent liabilities assumed and the noncontrolling stockholders interests recognized are measured initially at their fair values as at the acquisition date.

The excess of the consideration transferred plus the fair value of assets acquired and the liabilities assumed is recorded as goodwill, which is allocated to each cash-generating unit acquired.

## e) Noncontrolling stockholders interests

Investments held by investors in entities controlled by Vale are classified as noncontrolling stockholders interests. The Company treats transactions with noncontrolling stockholders interests as transactions with equity owners of the Group.

For purchases of noncontrolling stockholders interests, the difference between any consideration paid and the portion acquired of the carrying value of net assets of the subsidiary is recorded in stockholders equity. Gains or losses on disposals of noncontrolling stockholders interest are also recorded in stockholders equity.

When the Company ceases to hold control or significant influence, any retained interest in the entity is remeasured to its fair value, with the change in the carrying amount recognized in the statement of income. Any amounts previously recognized in Gain/ (loss) from operations with noncontrolling stockholders interests relating to that entity are accounted for as if the Group had directly sold the related assets or liabilities. This means that the amounts previously recognized in gain/ (loss) from operations with noncontrolling stockholders interests are reclassified to the statement of income.

Table	$\alpha f$	Contents

## f) Segment information and information by geographic area

The Company discloses information by business segment and assets by geographic unit, in accordance with the principles and concepts used by the chief operating decision makers in evaluating performance and allocating resources. The information is analyzed by operating segment as follows:

**Bulk Material** Comprises (i) the production and extraction of ferrous minerals, as iron ore, pellets and its logistic services (railroads, ports and terminals), manganese, ferroalloys and others ferrous products and services; and (ii) the extraction of coal and its logistic services (railroads, ports and terminals).

**Base metals** Includes the production and extraction of non-ferrous minerals, including nickel operations (co-products and by-products) and copper.

**Fertilizers** Includes the production of the three major groups of nutrients: potash, phosphate and nitrogen.

Other Comprises sales and expenses of other products, services and investments in joint ventures and associate in other businesses.

# g) Current and non-current assets or liabilities

The Company classifies assets and liabilities as current when the expectation to realize the assets or to settle the liabilities is twelve months from the end of the reporting period. Others assets and liabilities are classified as non-current.

## h) Cash equivalents and financial investments

The amounts recorded as cash and cash equivalents correspond to the amount available in cash, bank deposits and short-term investments that have immediate liquidity and original maturities within three months and insignificant risk of variation on its fair value. Other investments with

maturities after three months are recognized at fair value through income and presented in financial investments.

## i) Accounts receivables

Account receivables are financial instruments classified in the category loan and receivables and represent the total amount due from sale of products and services rendered by the Company. The receivables are initially recognized at fair value and subsequently measured at amortized cost, net of impairment losses, when applicable.

## j) Inventories

Inventories are stated at the lower of the average cost of acquisition or production and the net realizable value. The inventory production cost is determined on the basis of variable and fixed costs, direct and indirect costs of production, using the average cost method. An allowance for losses on obsolete or slow-moving inventory is recognized.

Ore piles are counted as processed when the ore is extracted from the mine. The cost of the finished product is composed of depreciation and any direct cost required converting ore piles to finished products.

Inventory of maintenance supplies are measured at the lower of cost and net realizable value and, where applicable, an estimate of losses on obsolete or slow-moving inventory is recognized.

## k) Non-current assets and liabilities held for sale and discontinued operation

When the Company is committed to a sale plan of a set of assets and liabilities available for immediate disposal, these assets and liabilities are classified as non-current assets and liabilities held for sale. If this group of assets and liabilities represent a major line of business are classified as discontinued operations.

The non-current assets and liabilities held for sale and discontinued operations are recognized in current, separate from the other assets and liabilities being measured at the lower of carrying amount and fair value less costs to sell.

Discontinued operations transactions are presented separately from the balance of Company s continuing operations in the statement of income, statement of comprehensive income and statement of cash flows.

$T_{2}$	ble	$\alpha$ f	Contents

## 1) Stripping Costs

The cost associated with the removal of overburden and other waste materials ( stripping costs ) incurred during the development of mines, before production takes place, are capitalized as part of the depreciable cost of developing the mining property. These costs are subsequently amortized over the useful life of the mine.

Post-production stripping costs are included in the cost of inventory, except when a new project is developed to permit access to a significant body of ore. In such cases, the cost is capitalized as a non-current asset and is amortized during the extraction of the body of ore, over the useful life of the body of ore.

Stripping costs are measured at fixed and variable costs directly and indirectly attributable to its removal and, when applicable, net of any impairment losses measured in same basis adopted for the cash generating unit of which it is part.

## m) Intangible assets

Intangible assets are carried at the acquisition cost, less accumulated amortization and impairment losses, when applicable.

Intangible assets with finite useful lives are amortized over their effective use and are tested for impairment whenever there is an indication that the asset may be impaired. Assets with indefinite useful lives are not amortized and are tested for impairment at least annually.

The Company holds concessions to exploit railway assets over a certain period of time. Those assets are classified as intangible assets and amortized over the shorter of their useful lives and the concession term at the end of which they will be returned to the government.

Intangible assets acquired in a business combination are recognized separately from goodwill.

## n) Property, plant and equipment

Property, plant and equipment are evaluated at the cost of acquisition or construction, less accumulated amortization and impairment losses, when applicable.

The cost of mining assets developed internally are determined by direct and indirect costs attributed to building the mining and plant, financial charges incurred during the construction period, depreciation of other fixed assets used into building, estimated decommissioning and site restoration expenses and other capitalized expenditures occurred during the development phase (phase when the project demonstrates its economic benefit to the Company, and the Company has ability and intention to complete the project).

The depletion of mineral assets is determined based on the ratio between production and total proven and probable mineral reserves. Property, plant and equipment are depreciated using the straight-line method based on the estimated useful lives, from the date on which the assets become available for their intended use, except for land which is not depreciated. Following are to estimated useful lives:

Property, plant and equipment	Useful lives
Buildings	between 15 and 50 years
Facilities	between 8 and 50 years
Equipment	between 3 and 33 years
Mineral properties	Unit of production
Others:	
Locomotives	between 12.5 and 25 years
Wagon	between 33 and 44 years
Railway equipment	between 5 and 50 years
Ships	between 5 and 20 years
Others	between 2 and 50 years

The residual values and useful lives of assets are reviewed at the end of each fiscal year and adjusted if necessary.

Significant industrial maintenance costs, including spare parts, assembly services, and others, are recorded in property, plant and equipment and depreciated through the next programmed maintenance overhaul.

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## o) Research and evaluation

## i. Exploration and evaluation expenditures

Expenditures on mining research are accounted for as operating expenses until the effective proof of economic feasibility and commercial operation of a given field can be demonstrated. From then on, the expenditures incurred are capitalized as mine development costs.

## ii. Expenditures on feasibility studies, new technologies and others research

The Company also conducts feasibility studies for many businesses which it operates including researching new technologies to optimize the mining process. After these costs are proven to generate future benefits to the Company, the expenditures incurred are capitalized.

## p) Impairment of assets

The Company assesses, at each reporting date, whether there is evidence that the carrying amount of financial assets measured through amortized cost and long-live non-financial asset, should be impaired.

For financial assets measured through amortized cost, Vale compares the carrying amount with the expected cash flows of the asset, and when appropriate, the carrying value is adjusted to reflect the present value of future cash flows.

For long-lived non-financial assets (such as intangible or property plant and equipment), when impairment indication are identified, a test is conducted by comparing the recoverable value of these assets grouped at the lowest levels for which there are separately identifiable cash flows of the cash-generating unit ( CGU ) to which the asset belongs to their carrying amount. If the Company identifies the need for impairment, it is consistently applied to each asset s cash-generating unit. The recoverable amount is the higher of value in use and fair value less costs to sell.

The Company determines its cash flows based on approved budgets, considering mineral reserves and mineral resources calculated by internal experts, costs and investments based on the best estimate of past performance and approved budgets, sale prices consistent with the projections used in reports published by industry considering the market price when available and appropriate. Cash flows used are designed based on the life of each cash-generating unit (consumption of reserve units in the case of minerals) and considering discount rates that reflect specific risks relating to the relevant assets in each cash-generating unit, depending on their composition and location.

For investments in affiliated companies with publicly traded stock, the Company assesses the recoverability of its assets when there is prolonged or significant decline in market value. The balance of their investments is compared in relation to the market value of the shares, when available. If the market value is less than the carrying value of investments, and the decrease is considered prolonged and significant, the Company performs the adjustment of the investment to the realizable value quoted in the market.

Regardless the indication of impairment of its carrying value, goodwill balances arising from business combinations, intangible assets with indefinite useful lives and land are tested for impairment at least once a year.

Non-current assets (excluding goodwill) which the Company recognized an impairment are reviewed whenever events or changes in circumstances indicate that the impairment may no longer be applicable. In such cases, an impairment reversal will be recognized.

## q) Suppliers and contractors

Accounts payable to suppliers and contractors are obligations to pay for goods and services that were acquired in the ordinary course of business. They are initially recognized at fair value and subsequently measured at amortized cost using the effective interest rate method.

#### r) Loans and financing

Loans and financing are initially measured at fair value, net of transaction costs incurred and are subsequently carried at amortized cost and updated using the effective interest rate method. Any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the Statement of Income over the period of the loan, using the effective interest rate method. The fees paid in obtaining the loan are recognized as transaction costs.

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Compound financial instruments include financial liability (debt) components and stockholders equity. The liability component instrument is initially recognized at fair value that is determined using discounted cash flow, considering the interest rate market for a non-convertible debt instrument with similar characteristics (period, value, credit risk). After initial recognition, the liability component of a compound financial instrument is measured at amortized cost using the effective interest rate method. The stockholders equity component is recognized as the difference between the total values received by the Company from the issue of the securities, and the initially recognized amount of the liability component. Following initial recognition, the equity component of a compound financial instrument is not remeasured until its conversion.

## s) Leases

The Company classifies its contracts as finance leases or operating leases based on the substance of the contract as to whether it is linked to the transfer of substantially all risks and benefits of the assets ownership to the Company during their useful life.

For finance leases, the lower of the fair value of the leased asset and the present value of minimum lease payments is recorded in tangible fixed assets and the corresponding obligation recorded in liabilities. For operating leases, payments are recognized on a straight line basis during the term of the contract as a cost or expense in the statement of income.

## t) Provisions

Provisions are recognized only when there is a present obligation (legal or constructive) resulting from a past event, and it is probable that the settlement of this obligation will result in an outflow of resources, and the amount of the obligation can be reasonably estimated. Provisions are reviewed and adjusted to reflect the current best estimate at the end of each reporting period. Provisions are measured at the present value of the expenditure expected to be required to settle an obligation using a pre-tax rate, which reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the obligation due to the passage of time is recognized as interest expense.

## i. Provision for asset retirement obligations

The provision made by the Company refers to costs related to mine closure and reclamation, with the completion of mining activities and decommissioning of assets related to mine. When the provision is recognized, the corresponding cost is capitalized as part of property plant and equipment and is depreciated on the same basis over the related asset and recorded in the statement of income.

The long-term liability is subsequently measured using a long-term discount rate and recorded in the statement of income, as financial expenses until the Company makes payments related to mine closure and decommissioning of assets mining.

## ii. Provision for litigation

The provision refers to litigation and fines incurred by the Company. A provision is recognized when the obligation is considered probable and can be measured. The accounting counterpart for the obligation is an expense in statement of income. This obligation is updated according to the evolution of the judicial process or interest incurred and can be reversed if the estimate of loss is not considered probable or settled when the obligation is paid.

## u) Employee benefits

## i. Current benefits wages, vacations and related taxes

Payments of benefits such as wages, vacation past due or accrued vacation, as well the related social security taxes over those benefits, are recognized monthly in income, on an accruals basis.

## ii. Current benefits profit sharing program

The Company has a profit sharing program based on the performance goals achievement of the Company and its employees. The Company recognizes the provision based on the recurring measurement of the compliance with goals and results, using the accrual basis and recognition of present obligation arising from past events in the estimated outflow of resources in the future. The counter entry of the provision is recorded as cost of goods sold and services rendered or operating expenses in accordance with the activity of each employee.

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## iii. Non-current benefits long-term incentive programs

The Company has established a procedure for awarding certain eligible executives (Matching Plan and Long-Term Incentive Plan - ILP) with the goal of encouraging employee retention and optimum performance. The Matching Plan establishes that these executives eligible for the plan are entitled to a specific number of preferred class A stocks of the Company, and shall be entitled at the end of three years to a cash sum corresponding to the market value of the shares lot initially linked by the executives, provided that they are under the ownership of executives throughout the entirety of the period. As well as matching, the ILP provides at the end of three years the payment in the amount equivalent to a certain number of shares based on the assessment of the executives performance and the Company's results in relation to a group of companies of similar size (per group). Plan liabilities are measured at each reporting date, at their fair values, based on market prices. Obligations are measured at each reporting date, at fair values based on market prices. The compensation costs incurred are recognized in income during the vesting period as defined.

## iv. Non-current benefits pension costs and other post-retirement benefits

The Company has several retirement plans for its employees.

For defined contribution plans, the Company s obligations are limited to a monthly contribution linked to a pre-defined percentage of the remuneration of employees enrolled in to these plans.

For defined benefit plans, actuarial calculations are periodically obtained for liabilities determined in accordance with the Projected Unit Credit Method in order to estimate the Company s obligation. The liability recognized in the balance sheet represents the present value of the defined benefit obligation as of that date, less the fair value of plan assets. The Company recognized in the statement of income the costs of services, the interest expense of the obligations and the interest income of the plan assets. The remeasurement of gains and losses, return on plan assets (excluding the amount of interest on return of assets, which is recognized in income for the year) and changes in the effect of the ceiling of the active and onerous liabilities are recognized in comprehensive income for the year.

For plans presenting a surplus, the Company does not recognize any assets or benefits in the balance sheet or statement of income until such time as the use of this surplus is clearly defined. For plans presenting a deficit, the Company recognizes actuarial liabilities and results arising from the actuarial valuation.

## Derivative financial instruments and hedge operations

The Company uses derivative instruments to manage its financial risks as a way of hedging against these risks. The Company does not use derivative instruments for speculative purposes. Derivative financial instruments are recognized as assets or liabilities in the balance sheet and are measured at their fair values. Changes in the fair values of derivatives are recorded in each year as gains or losses in the statements of income or in stockholders equity when the transaction is eligible to be characterized as an effective cash flow hedge.

On the beginning of the hedge operations, the Company documents the relationship between hedging instruments and hedged items with the objective of risk management and strategy for carrying out hedging operations. The Company also documents, both initially and on a continuously basis, that its assessment of whether the derivatives used in hedging transactions are highly effective.

The effective components of changes in the fair values of derivative financial instruments designated as cash flow hedges are recorded as unrealized fair value gain/(losses) and recognized in stockholders equity; and their non-effective components recorded in income. The amounts recorded in the statement of comprehensive income, will only be transferred to statement of income (costs, operating expenses or financial expenses) when the hedged item is actually realized.

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#### w) Financial instruments classification

The Company classifies its financial instruments in accordance with the purpose for which they were acquired, and determines the classification and initial recognition according to the following categories:

## i. Financial assets

Measured at fair value through the statement of income Financial assets held for trading acquired for the purpose of selling in the short-term. These instruments are measured at fair value, except for derivative financial instruments not classified as hedge accounting, considering the inclusion of the credit risk of counterparties on the calculation of the instruments.

**Loans and receivables** Non-derivative financial instruments with fixed or defined payments, which are not quoted in an active market, are initially measured at fair value and subsequently at amortized cost using the effective interest method.

**Held to maturity** Non-derivative financial assets with fixed or determinable payments and fixed maturities for which the Company has the intent and ability to hold them to maturity, are initially measured at fair value and subsequently at amortized cost.

**Available for sale** Non-derivative financial assets not classified in another category of financial instrument. Financial instruments in this category are measured at fair value, with changes in fair value until the moment of realization then recorded in statement of comprehensive income. On realization of the financial asset, its fair value is reclassified to statement of income.

## ii. Financial liabilities

**Measured at fair value through the statement of income** Financial liabilities with the purpose of trading (repurchase) or which are initially measured at fair value by the Company, being irreversibly this method of classification.

**Measured at amortized cost** Non-derivative financial liabilities with fixed and determinable payments and fixed maturities, which were not classified as measured at fair value through the statement of income.

## x) Capital

The Company periodically repurchases its shares to hold in treasury for future sale or cancellation. These shares are recorded in a specific account as a reduction of stockholders' equity at their acquisition value and carried at cost. These programs are approved by the Board of Directors with a determined terms and numbers of type of shares.

Incremental costs directly attributable to the issue of new shares or options are recognized in stockholders equity as a deduction from the amount raised, net of taxes.

## y) Government grants and support

Government grants and support are accounted for when Company has reasonably complied with conditions set by the government in relation to the grants. The Company recognizes the grants in the statement of income as a reduction in tax expense according to the nature of the item, and classified through retained earnings in stockholders equity during allocation of net income.

#### z) Revenue recognition

Revenue is recognized when Vale transfers to its customers all of the significant risks and rewards of ownership of the product sold or when services are rendered. Net revenue excludes any applicable sales taxes and is recognized at the fair value of the consideration received or receivable to the extent that it is probable that economic benefits will flow to Vale and the revenues and costs can be reliably measured.

Depending on the contract, sales can be recognized when the product is available at the loading port, loaded on the ship or delivered to the destination. Service revenues are recognized in the amount by which the services are rendered and accepted by the customer.

In some cases, the sale price is determined on a provisional basis at the date of sale and the final selling price is subject to escalation clauses through date of final pricing. Revenue from the sale of provisionally priced products is recognized when the risks and rewards of ownership are transferred to the customer and the revenue can be measured reliably. At this date, the amount of revenue to be recognized is estimated based on the forward price of the product sold.

Amounts billed to customers for shipping related to products sold by the Company are recognized as revenue when the Company is responsible for shipping. Shipping costs are recognized as operating costs.

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#### aa) Current and deferred income taxes

Income taxes are recognized in the statement of income, except for items recognized directly in stockholders equity, in which the tax is also recognized in stockholder s equity.

The provision for income tax is calculated individually for each entity in the Group based on tax rates and tax rules in force in the location of the entity. The recognition of deferred taxes are based on temporary differences between carrying value and the tax basis of assets and liabilities as well as taxes losses carry forwards. The deferred income taxes assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against fiscal current liabilities and when the deferred income taxes assets and liabilities are related to income taxes recorded by the same taxation authority on the same taxable entity.

#### bb) Basic and diluted earnings per share

Basic earnings per share are calculated by dividing the income attributable to the stockholders of the Company, after accounting for the remuneration to the holders of equity securities, by the weighted average number of shares outstanding (total shares less treasury shares).

Diluted earnings per share are calculated by adjusting the weighted average number of shares outstanding for the conversion of all dilutive potential shares. The Company does not have mandatory convertible securities that could result in the dilution of the earning per share.

#### cc) Stockholder's remuneration

The stockholder s remuneration is paid on dividends and interest on capital. This remuneration is recognized as a liability in the financial statements of the Company based on bylaws. Any amount above the minimum compulsory remuneration approved by the bylaws shall only be recognized in current liabilities on the date that is approved by stockholders.

The Company is permitted to distribute interest attributable to stockholders equity. The calculation is based on the stockholders equity amounts as stated in the statutory accounting records and the interest rate applied may not exceed the Brazilian Government Long-term Interest Rate ( TJLP ) determined by the Central Bank of Brazil. Also, such interest may not exceed 50% of net income for the year or 50% of retained earnings plus profit reserves as determined by Brazilian corporate law.

The benefit to the Company, as opposed to making a dividend payment, is a reduction in the income tax burden because this interest charge is tax deductible in Brazil. Income tax of 15% is withheld on behalf of the stockholders relative to the interest distribution. Under Brazilian law, interest attributed to stockholders equity is considered as part of the annual minimum mandatory dividend (note 25-f). This notional interest distribution is treated for accounting purposes as a deduction from stockholders equity in a manner similar to a dividend and the tax credit recorded in income.

#### 3. Critical accounting estimates and judgment

The preparation of financial statements requires the use of certain critical accounting estimates and also the exercise of judgment by the management of the Company.

These estimates are based on the best knowledge and information existing on the balance sheet date. Changes in facts and circumstances may lead to the revision of these estimates. Actual future results may differ from the estimates.

The significant estimates and assumptions used by Company in these financial statements are as follow:

#### a) Mineral reserves and mine useful life

The estimates of proven and probable reserves are regularly evaluated and updated. These reserves are determined using generally accepted geological estimates. The calculation of reserves requires the Company to take positions on expected future conditions that are uncertain, including future ore prices, exchange rates, inflation rates, mining technology, availability of permits and production costs. Changes in some of these assumptions could have a significant impact on the proven and probable reserves of the Company.

The estimated volume of mineral reserves is used as basis for the calculation of depletion of the mines, and also for the estimated useful life which is a major factor to quantify the provision for asset retirement obligation and environmental recovery of mines. Any changes to the estimates of the volume of mine reserves and the useful lives of assets may have a significant impact on the depreciation, depletion and amortization charges included in cost of goods sold. Changes in the estimated useful life of the mine have a significant impact on the estimates of environmental provision and impairment analysis.

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#### b) Asset retirement obligation

The Company recognizes an obligation under the fair value for asset retirement obligations in the period in which they occur, as note 2t-i. The Company considers the accounting estimates related to closure costs of a mine as a critical accounting policy because they involve significant values for the provision and are estimated using several assumptions, such as interest rate, inflation, useful life of the asset considering the current state of closure and the projected date of depletion of each mine. The estimates are reviewed annually.

#### c) Impairment.

The Company tests impairment of tangible (whether there is evidence of impairment) and intangible (annually) assets segregated by cash-generating units using discounted cash flow model that depends on several estimates, which are influenced by market conditions prevailing at the time the impairment test is performed.

#### d) Litigation losses

Provisions are recorded when the possibility of loss relating to legal proceedings or contingent liabilities is considered probable by the Company s legal department and its legal advisors.

The provisions are recorded when the amount of loss can be reasonably estimated. By their nature, litigations will be resolved when one or more future event occurs or fails to occur. Typically, the occurrence or not of such events is outside the Company s control. Legal uncertainties involve the exercise of significant estimates and judgments of management regarding the results of future events.

#### e) Post-retirement benefits for employees

The amount recognized and disclosed depend on a number of factors that are determined based on actuarial calculations using various assumptions in order to determine costs and liabilities. One of these assumptions is selection and use of the discount rate. Any changes to these assumptions will affect the amount recognized.

At the end of each year the Company and external actuaries reviews the assumptions that should be used for the following year. These assumptions are used in determining the fair values of assets and liabilities, costs and expenses and the future values of estimated cash outflows, which are recorded in the plan obligations.

#### f) Fair values of derivatives and others financial instruments

The fair values of financial instruments that are not traded in active markets are determined using valuation techniques. Vale uses its own judgment to choose between the various methods and assumptions are based on the market conditions, at the end of the year.

An analysis of the impact if actual results are different from management s estimates is present on note 24 (sensibility analysis).

## g) Deferred income taxes

The Company recognizes the effects of deferred taxes arising from tax losses and temporary differences and derecognizes when believes that tax credits recoverable are not probable. Deferred tax liabilities are fully recognized.

The determination of the recognition of income tax or deferred income tax, assets and liabilities, and any derecognition of tax credits requires the use of estimates. For each tax asset, the Company assesses the probability that some or all of the tax assets may not be recoverable. The impairment recorded in relation to the accumulated tax losses depends on the assessment of the probability of the generation of future taxable profits based on production and sales planning, commodity prices, operational costs, restructuring plans, reclamation costs and planned capital costs.

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#### 4. Accounting standards issued but not yet effective

The standards and interpretations those are issued by IASB, but not yet effective, up to the date of issuance of the Company s financial statements are disclosed below. The Company intends to adopt these standards, if applicable, when they become effective.

Sale or Contribution of Assets between an Investor and its Associate or Joint Venture In September 2014 the IASB issued narrow-scope amendments to IFRS 10 Consolidated Financial Statements and IAS 28 Investments in Associates and Joint Ventures (2011). The amendments address an acknowledged inconsistency between the requirements in IFRS 10 and those in IAS 28 (2011), in dealing with the sale or contribution of assets between an investor and its associate or joint venture. The main consequence of the amendments is that a full gain or loss is recognized when a transaction involves a business (whether it is housed in a subsidiary or not). A partial gain or loss is recognized when a transaction involves assets that do not constitute a business, even if these assets are housed in a subsidiary. The adoption of the amendment will be required from January 1, 2016 and the Company is analyzing potential impacts regarding this update on the financial statements.

**Equity Method in Separate Financial Statements** In August 2014 the IASB issued an amendment to IAS 27, which allows an entity to use the equity method to account for investments in subsidiaries, joint ventures and associates in their separate financial statements. The IASB clarifies that the changes will help some jurisdictions to register in their separate IFRS financial statements, reducing compliance costs without reducing the information available to investors. The adoption will be required for annual periods beginning from January 1, 2016 with retrospective application. The Group already uses in its individual financial statements the equity method of accounting to record investments in subsidiaries, joint ventures and associates.

**IFRS 9 Financial instruments** - In July 2014 the IASB issued IFRS 9 Financial instruments, sets out the requirements for recognizing and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. This Standard replaces IAS 39 Financial Instruments: Recognition and Measurement. The adoption will be required from January 1, 2018 and the Company is currently analyzing potential impacts regarding this pronouncement on the financial statements.

Accounting for Acquisitions of Interests in Joint Operations In May 2014 the IASB issued an amendment to IFRS 11 - Joint Arrangements, to provide guidance on the accounting for acquisitions of interests in joint operations in which the activity constitutes a business. The adoption of the amendment will be required from January 1, 2016 and the Company is analyzing potential impacts regarding this update on the financial statements.

Clarification of Acceptable Methods of Depreciation and Amortization In May 2014 the IASB issued an amendment to IAS 16 - Property, Plant and Equipment and IAS 38 - Intangible Assets, established the pattern of consumption of an asset's expected future economic benefits as acceptable methods of depreciation and amortization of assets. The IASB clarifies that the use of methods based on revenues to calculate the depreciation of an asset and also to measure the consumption of the economic benefits embodied in an intangible asset, are not appropriate. The adoption of the amendment will be required from January 1, 2016 and the Company is currently analyzing potential impacts regarding this

update on the financial statements.

IFRS 15 Revenue from Contracts with Customers - In May 2014 the IASB issued IFRS 15 statement - Revenue from Contracts with customers, sets out the requirements for revenue recognition that apply to all contracts with customer (except for contracts that are within the scope of the Standards on leases, insurance contracts and financial instruments), and replaces the current pronouncements IAS 18 - revenue, IAS 11 - Construction contracts and interpretations related to revenue recognition. The principle core in that framework is that a company should recognize revenue to depict the transfer of promised goods or services to the customer in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The adoption will be required from January 1, 2017 and the Company is currently analyzing potential impacts regarding this pronouncement on the financial statements.

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#### 5 Risk management

The Company considers that an effective risk management is a key objective to support its growth plan, strategic planning and financial flexibility. Therefore, Vale has developed its risk management strategy in order to provide an integrated approach of the risks the company is exposed to. To do that, evaluates not only the impact in the results of the business caused by variables traded in financial markets (market risk) and those arising from liquidity risk, but also the risk from counterparties obligations (credit risk), those relating to inadequate or failed internal processes, people, systems or external events (operational risk), among others.

#### a) Risk management policy

The Board of Directors established a risk management policy in order to (i) support the Company s growth plan, strategic planning and Company s business continuity; (ii) improve its capital structure and asset management of the Group; (iii) ensure adequate degree of flexibility in financial management while maintaining the level of robustness required for investment grade; and (iv) improve corporate governance practices.

The corporate risk management policy determines that Vale should measure and monitor regularly its corporate risk on a consolidated approach in order to guarantee that the overall risk level of the Company remains aligned with the guidelines defined by the Board of Directors and the Executive Board.

The Executive Risk Management Committee, created by the Board of Directors, is responsible for supporting the Executive Board in the risk assessments and for issuing opinion regarding the Company s risk management. It s also responsible for the supervision and revision of the principles and instruments of corporate risks management.

The Executive Board is responsible for the approval of the policy deployment into norms, rules and responsibilities and for reporting to the Board of Directors about such procedures.

The risk management norms and instructions complement the corporate risk management policy and define practices, processes, controls, roles and responsibilities in the Company regarding risk management.

The Company may, when necessary, allocate specific risk limits to management activities, including but not limited to, market risk limit, corporate and sovereign credit limit, in accordance with the acceptable corporate risk limit.

#### b) Liquidity risk management

The liquidity risk arises from the possibility that Vale might not perform its obligations on due dates, as well as face difficulties to meet its cash requirements due to market liquidity constraints.

To mitigate such risk, Vale has a revolving credit facility to assist the short term liquidity management and to enable more efficiency in cash management, being consistent with the strategic focus on cost of capital reduction. The revolving credit facilities available today were acquired from a syndicate of several global commercial banks.

#### c) Credit risk management

Vale s credit risk arises from potential negative impacts in its cash flows due to uncertainty in the ability of counterparties to meet their contractual obligations. To manage that risk, Vale has procedures and processes, such as the controlling of credit limits, the obligation of exposure diversification through several counterparties and the monitoring of the portfolio s credit risk.

Vale s counterparties can be divided into three main categories: the customers, responsible by obligations regarding receivables from payment term sales; financial institutions with whom Vale keeps its cash investments or negotiates derivatives transactions; and suppliers of equipment, products and services in the case of payments in advance.

#### d) Commercial credit risk management

For the commercial credit exposure, which arises from sales to final customers, the risk management department, in accordance with the current delegation level, approves or request the approval of credit risk limits for each counterpart. Besides that, the Executive Board sets annually global commercial credit risk limits for the customer s portfolio.

The Company attributes an internal credit risk rating for each counterparty using its own quantitative methodology for credit risk analysis, based on three main sources of information: i) Expected Default Frequency (EDF) provided by KMV (Moody s); ii) credit ratings from the main international credit agencies; iii) costumer s financial statements for economic and financial evaluation based on financial indicators.

On 31 December 2014, 82% of accounts receivable due to Vale commercial sales had insignificant or low risk, 16% had moderate risk and 2% high risk.

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Whenever considered necessary, the quantitative credit risk analysis is complemented by a qualitative analysis which takes into consideration the payment history of that counterparty, its commercial relationship with Vale and the customer s strategic position in its economic sector, among others variables.

Based on the counterparty s credit risk or based on Vale's consolidated credit risk profile, risk mitigation strategies are used to minimize the Company's credit risk in order to meet the acceptable level of risk approved by the Executive Board. The main credit risk mitigation strategies include non-recourse discount of receivables, insurance instruments, letters of credit, corporate and bank guarantees, mortgages, among others.

The Company has a diversified accounts receivable portfolio from a geographical standpoint, being China, Europe, Brazil and Japan the regions with more significant exposures. According to each region, different guarantees can be used to enhance the credit quality of the receivables.

The Company controls its account receivables portfolio through Credit and Cash Collection committees, in which representatives from risk management, cash collection and commercial departments monitor periodically each counterparty's exposure. Finally, Vale has an automatic control that blocks additional sales to customers in default.

#### e) Treasury credit risk management

The management of exposure arising from cash investments and derivatives instruments is realized through the following procedures: annual approval by the Executive Board of the credit limits by counterparty, controls of portfolio diversification, counterparties` credit spread variations and the treasury portfolio overall credit risk. There s also a monitoring of all positions, exposure versus limit control and periodic report to the Executive Risk Management Committee.

The calculation of the exposure to a counterparty that has several derivative transactions with Vale it's considered the sum of exposures of each derivative acquired with this counterparty. The exposure for each derivative is defined as the future value calculated within the life of the derivative, considering the variation of the market risk factors that affect the value of the derivative instrument.

The Company also assesses the creditworthiness of its counterparties in treasury operations following an internal methodology similar to commercial credit risk management that aims to define a default probability for each counterparty.

Depending on the counterparty s nature (banks, insurance companies, countries or corporations), different inputs will be considered: i) expected default probability given by KMV; ii) CDS (Credit Default Swaps) and bond market spreads; iii) credit ratings defined by the main international rating agencies; iv) financial statements data and indicators analysis.

#### f) Market risk management

The Company is exposed to the behavior of several market risk factors that can impact its cash flow. The assessment of this potential impact arising from the volatility of risk factors and their correlations is performed periodically to support the decision making process and the growth strategy of the Company, ensure its financial flexibility and monitor the volatility of future cash flows.

When necessary, market risk mitigation strategies are evaluated and implemented in line with these objectives. Some strategies may incorporate financial instruments, including derivatives. The portfolios of the financial instruments are monitored on a monthly basis, enabling financial results surveillance and its impact on cash flow.

Considering the nature of Vale s business and operations, the main market risk factors which the Company is exposed to are:

- Foreign exchange and Interest rates;
- Product prices and input costs.

#### g) Foreign exchange and interest rate risk

The Company s cash flow is subjected to volatility of several currencies, once its product prices are predominantly indexed to US dollar, while most of the costs, disbursements and investments are indexed to other currencies, mainly Brazilian real and Canadian dollar.

In order to reduce the potential impact that arises from this currency mismatch, derivatives instruments can be used as a risk mitigation strategy.

In the case of cash flow foreign exchange protection regarding revenues, costs, disbursements and investments, the main risk mitigation strategies used are forwards and swaps.

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The Company implemented hedge transactions to protect its cash flow against the market risks that arises from its debt obligations mainly currency volatility. The hedges cover most of the debts in reais and euros. The Company uses swap transactions to convert debt linked to Brazilian real and Euros into US dollar that have similar - or sometimes shorter - settlement dates than the final maturity of the debt instruments. Their notional amounts are similar to the principal and interest payments, subjected to liquidity market conditions.

Swaps with shorter settlement dates are renegotiated through time so that their final maturity matches - or becomes closer - to the debts` final maturity. At each settlement date, the results of the swap transactions partially offset the impact of the foreign exchange rate in Vale s obligations, contributing to stabilize the cash disbursements in US dollar.

In the case of debt instruments denominated in Brazilian real, in the event of an appreciation (or depreciation) of the Brazilian Real against the US Dollar, the negative (or positive) impact on Vale's debt service (interest and/or principal payment) measured in US dollars will be partially offset by the positive (or negative) effect from the swaps, regardless of the US\$/R\$ exchange rate on the payment date. The same rationale is applicable to debts denominated in other currencies and their respective swaps.

The Company has also exposure to interest rates risks over loans and financings. The US Dollar floating rate debt in the portfolio consists mainly of loans including export pre-payments, commercial banks and multilateral organizations loans. In general, such debt instruments are indexed to the LIBOR (London Interbank Offer Rate in US dollar). Considering the impact of interest rate volatility on the cash flow, Vale observes the potential natural hedges effects between US Dollar floating rates and commodities prices in the decision process of acquiring financial instruments.

#### h) Risk of product and Input prices

The Company is also exposed to market risks regarding commodities prices and input volatilities. In accordance with risk management policy, risk mitigation strategies involving commodities can be used to adjust the cash flow risk profile and reduce Vale s cash flow volatility. For this kind of risk mitigation strategy, Vale uses predominantly forwards, futures or zero-cost collars.

#### i) Operational risk management

The operational risk management is the structured approach that Vale uses to manage uncertainty related to possible inadequate or failure in internal processes, people, systems and external events, in accordance with the principles and guidelines of ISO 31000.

The main operational risks are periodically monitored, ensuring the effectiveness of prevention / mitigation key controls in operation and execution of the risk treatment strategy (creation of new controls, changes in the risk environment, transfer part of the risk by contracting insurance, provisioning of resources, etc.).

Therefore, the Company seeks to have a clear view of its major risks, of the best cost-benefit mitigation plans and of the controls in place, monitoring the potential impact of operational risk and allocating capital efficiently.

#### j) Capital management

The Company s policy aims, to manage its capital, to seek a structure that will ensure the continuity of your business in the long term. Within this perspective, the Company has been able to deliver value to stockholders through dividend payments and capital gain, and at the same time maintain a debt profile suitable for its activities, with an amortization well distributed over the years, on average 9 years, thus avoiding a concentration in one specific period.

#### k) Insurance

The Company hires several types of insurance, such as operational risks insurance, engineering risks insurance (projects), civil responsibility, life insurance policy for their employees, among others. The coverage of these policies is similar to the ones used in general by the mining industry and is contracted in line with the objectives defined by the Company, with the corporate risk management policy and the limitation imposed by the insurance and reinsurance global market. In general, the company sassets directly related with its operations are included in the coverage of insurance policies.

Insurance management is performed with the support of existing insurance committees in the various operational areas of the Company. Among the management instruments, Vale uses captive reinsurance companies that allows to contract insurances on a competitive basis as well as direct access to key international markets of insurance and reinsurance.

# 6. Non-current assets and liabilities held for sale and discontinued operation

Described below are the assets and liabilities held for sale and discontinued operation reclassified during the year:

	Γ	December 31, 2014		Dec	cember 31, 2013	
	E (2)	NI I . (°)	77.4.1	General Cargo -	F	(D. 4 . 1
	Energy (i)	Nacala (i)	Total	Logistic (ii)	Energy (i)	Total
Assets held for sale and						
discontinued operation						
Accounts receivable		8	8	141		141
Other current assets		157	157	271		271
Investments	88		88		79	79
Intangible, net				1,687		1,687
Property, plant and equipment,						
net	477	2,910	3,387	1,027	561	1,588
Total assets	565	3,075	3,640	3,126	640	3,766
Liabilities associated with						
assets held for sale and						
discontinued operation						
Suppliers and contractors		54	54	85		85
Payroll and related charges				61		61
Other current liabilities		57	57	112		112
Other non-current liabilities				190		190
Total liabilities		111	111	448		448
Net assets held for sale and						
discontinued operation	565	2,964	3,529	2,678	640	3,318

<sup>(</sup>i) Assets and liabilities held for sale

# a) Assets and liabilities held for sale

Nacala logistic corridor ( Nacala )

<sup>(</sup>ii) Discontinued operation

In December 2014, the Company signed an agreement with Mitsui & Co., Ltd. (Mitsui) to sell 50% of its stake of 70% in Nacala, which comprises entities which holds a railroad and port concession under construction located in Mozambique and Malawi and are related to coal segment.

The investment in Nacala was funded by Vale through an equity and equity equivalent instrument of US\$313, with the remaining balance funded through Vale s bridge shareholder loans. With the transaction, a new company will be incorporated to which Vale will contribute their investment in Nacala. Mitsui will then contribute to the new company the amount of US\$313 in equity instruments and will therefore hold 50% of the participation of the new company. Vale and Mitsui are in negotiations to fund the remaining investment required and to take-out part of Vale's bridge shareholder loans.

After completion of the transaction, Vale will share control of Nalaca with Mitsui and therefore will not consolidate the assets and liabilities of these entities. The assets were transferred to assets held for sale with no impact in the statement of income

## **Energy generation assets**

In December 2013, the company signed agreements with CEMIG Geração e Transmissão S.A. ( CEMIG GT ), as follow: (i) to sell 49% of its stake of 9% in Norte Energia S.A. ( Norte Energia ), the company in charge of the construction, operation and exploration of the Belo Monte Hydroelectric facility, and (ii) to create a joint venture named Aliança Geração de Energia S.A. to be established by Vale and CEMIG GT through contribution of its shares on the following power generation assets: Porto Estrela, Igarapava, Funil, Capim Branco I and II, Aimorés and Candonga. No cash will be disbursed as part of the transaction. Vale and CEMIG GT will hold respectively 55% and 45% and will share control of the new company, which will supply energy to Vale operations, previously guaranteed by its own generation plant, ensured by a long-term contract.

The transaction above has been approved by the Brazilian Electricity Regulatory Agency (Agência Nacional de Energia Elétrica or ANEEL), but is pending of a minor precedent condition. The conclusion of the transaction is expected to occur in the first quarter of 2015. The assets were transferred to assets held for sale with no impact in the statement of income. Once the transaction is completed, the Company will recognize a gain on sale of assets in the statement of income in the amount of US\$195, approximately (based on balance sheet as of December 31, 2014).

## b) Discontinued operation

# General cargo - Logistic

At the end of 2013, Vale entered to an agreement to dispose of control over its subsidiary VLI S.A. (VLI), which aggregates all operations of the general cargo segment. As a consequence, at the beginning of January 1, 2014, the investment in VLI has been accounted as an investment in associate (note 12).

In April 2014, Vale finalized the sale of 35.9% of its stake in VLI capital to Mitsui and to Fundo de Investimento do Fundo de Garantia de Tempo de Serviço (FGTS) for the amount of US\$1,197, which US\$896 was settled through a capital contribution directly in VLI.

In August 2014, Vale completed the sale of 26.5% of its stake in VLI to a fund of Brookfield Asset Management Inc. ( Brookfield ) for US\$908 (R\$2,000). At the completion of the transaction, Vale now holds 37.6% of VLI s total stockholder s equity.

## 7. Acquisitions and divestitures

The results on divestitures are presented as follow:

		Year ended as at December 31,	
	2014	2013	2012
Loss on measurement or sales of non-current assets			
Sociedad Contractual Minera Tres Valles		(215)	
Manganese and ferroalloys assets			(22)
Coal assets			(355)
Araucária Nitrogenados S.A.			(129)
Mineral rights - CoW Indonesia (note 30a)	(167)		
	(167)	(215)	(506)
Financial income			
Norsk Hydro ASA		214	
		214	
Results on sale or disposal of investments from associates and joint			
ventures			

Vale Florestar Fundo de Investimento em Participações	(30)		
Log-in Logística Intermodal S.A.		14	
Fosbrasil S.A.		27	
	(30)	41	

• 2014

#### a) Divestitures of Vale Florestar Fundo de Investimento em Participações ( Vale Florestar )

Vale signed an agreement with a subsidiary of Suzano Papel e Celulose S.A ( Suzano ), a company that produces eucalyptus pulp, for the sale of its entire stake in Vale Florestar for US\$93 (R\$205). The approval of this transaction by the Conselho Administrativo de Defesa Econômica ( CADE ) has been obtained in July, 2014.

A loss on this transaction, of US\$30 (R\$68) was recorded in the statement of income as results on sale or disposals of investments from joint ventures and associates.

## b) Incorporation of Vale Mina do Azul S.A. (VMA)

In December 2014, Vale incorporated its wholly-owned subsidiary VMA, with no impact in the consolidated financial statements.

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• 2013

#### c) Divestitures of Norsk Hydro ASA ( Hydro )

As part of Vale s strategy of reducing its exposure to non-core assets, in November 2013, the Company sold its Hydro common shares for US\$1,811. Since February 2013 when the lock-up period for trading Hydro shares ended, the investment could be traded in the market and therefore the Company started classifying this investment as a financial asset available for sale. As result of this operation, the Company recognized a gain of US\$214 in the statement of income as financial income for the year ended as at December 31, 2013, as below:

Hydro	
Balance in the date of sale	1,845
Cumulative translation adjustment recycling	(442)
Results on available for sale investments recycling	194
	1,597
Amount received	1,811
Gain on sale	214

## d) Divestitures of Sociedad Contractual Minera Tres Valles ( Tres Valles )

In December 2013, the Company sold its total participation in Tres Valles for US\$25. This transaction is consistent with Vale's strategy of focusing on world-class assets, with scale compatible with its existing operations. In this transaction, Vale recognized a loss of US\$215 presented in the statement of income as loss on measurement or sale of non-current assets of the year ended as at December 31, 2013. The total loss includes an amount of US\$7 transferred from cumulative translation adjustments.

#### e) Divestitures of Fosbrasil S.A. ( Fosbrasil )

In December 2013, the Company entered into an agreement to sale its minority participation in the associate Fosbrasil, producer of purified phosphoric acid, for US\$45. On this transaction, Vale recognized a gain of US\$27 presented in the statement of income as result on sale or disposal of investments from joint ventures and associates for the year ended as at December 31, 2013.

#### f) Divestitures of Log-In Logística Intermodal S.A. ( Log-in )

In December 2013, Vale conducted an auction to sell its common shares of Log-in. All the shares were sold by US\$94 and the gain of US\$14 on this transaction was recorded in the statement of income as result on sale or disposal of investments from associates and joint ventures for the year ended as at December 31, 2013.

• 2012

## g) Acquisition of additional participation in Belvedere Coal Project

During 2012, the Company completed the purchase option on additional 24.5% participation in the Belvedere Coal Project owned by Aquila Resources Limited in the amount of AUD150 million (US\$156). In 2013, after the approval of the local government, Vale acquired 100% of Belvedere and paid the total amount of US\$ 338 for the wholly owned participation.

#### h) Sales of coal assets

In June 2012, Vale completed the sale of its thermal coal operations in Colombia to CPC S.A.S., an affiliate of Colombian Natural Resources S.A.S. The loss on this transaction, of US\$355 was recorded in the income statement as loss on measurement or sales of non-current assets for the year ended as at December 31, 2012.

#### i) Acquisition of Empreendimentos Brasileiros de Mineração ( EBM ) shares

At 2012, the Company acquired an additional of 10.46% of EBM. As result of the acquisition, Vale increased its share in EBM to 96.7% and recognized US\$62 as result from operation with non-controlling interest in stockholders equity.

#### j) Divestitures of manganese and ferroalloys assets

In October 2012, the Company completed the sale of its manganese and ferroalloys operations in Europe for US\$160. On this transactions Vale recognized US\$22 presented in statement of income as loss on measurement or sales of non-current assets for the year ended as at December 31, 2012.

## k) Divestitures of participation in Vale Oman Pelletizing LLC (Vale Oman)

In October 2012, the Company sold 30% of its participation in Vale Oman for US\$71. In this transaction, the Company recognized a gain of US\$63 as result from operation with non-controlling interest in stockholders equity.

#### 1) Divestitures of Araucária Nitrogenados S.A. ( Araucária )

In December 2012, the Company finalized an agreement with Petróleo Brasileiro S.A. (Petrobras) to sell Araucária, an operation for production of basic nitrogen for fertilizer, located in Araucária, in the Brazilian state of Paraná, for the amount of US\$234 and recognized a loss of US\$129 recorded on loss on measurement or sales of non-current assets in statement of income for the year ended as at December 31, 2012.

#### 8. Cash and cash equivalents

	December 31, 2014	December 31, 2013
Cash and bank deposits	2,109	1,558
Short-term investments	1,865	3,763
	3,974	5,321

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

## 9. Accounts receivable

	December 31, 2014	December 31, 2013
Ferrous minerals	2,155	4,417
Coal	122	126
Base metals	777	962
Fertilizers	136	184

Others	172	103
	3,362	5,792
Provision for doubtful debts	(87)	(89)
	3,275	5,703

Accounts receivable related to the steel sector represented 77.97% and 79.70% of total receivables on December 31, 2014 and 2013, respectively.

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

The provision for doubtful debts recorded in the statement of income as at December 31, 2014, 2013 and 2012 totaled US\$36, US\$ 4 and US\$ 22, respectively. The Company recognized write-off as at December 31, 2014, 2013 and 2012 in the amount of US\$5, US\$ 15 and US\$ 16, respectively.

Accounts receivable presented by currency are shown in note 22.

# 10. Inventories

Inventories are comprised as follows:

	December 31, 2014	December 31, 2013
Inventories of products		
Bulk Material		
Ferrous minerals		
Iron ore	1,110	646
Pellets	187	88
Manganese and ferroalloys	69	75
	1,366	809
Coal	155	318
Base Metals		
Nickel and other products	1,435	1,398
Copper	26	23
	1,461	1,421
Fertilizers		
Potash	12	8
Phosphates	309	313
Nitrogen	23	19
	344	340
Others products	4	8
Total of inventories of products	3,330	2,896
Inventory of consumables	1,171	1,229
Total	4,501	4,125

As at December 31, 2014 and 2013 the Company had provisions to adjust inventories to market value for nickel in the amount of US\$0 and US\$14, respectively; manganese in the amount of US\$0 and US\$1, respectively; and coal in the amount of US\$285 and US\$117, respectively.

	Year ended as at December 31,				
	2014	2013	2012		
Inventories of products					
Balance at beginning of the year	2,896	3,597	3,975		
Production/acquisition	23,060	20,008	21,167		
Transfer from inventory of consumables	3,201	4,125	4,224		
Cost of goods sold	(25,064)	(24,245)	(25,390)		
Provision for market value adjustment	(285)	(132)	(38)		
Translation adjustments	(478)	(457)	(341)		

Balance at end of the year 3,330 2,896 3,597

	Year ended as at December 31,				
	2014	2013	2012		
Inventory of consumables					
Balance at beginning of the year	1,229	1,455	1,276		
Acquisition	3,282	4,063	4,508		
Transfer to inventories of products	(3,201)	(4,125)	(4,224)		
Translation adjustments	(138)	(164)	(105)		
Transfer to held for sale	(1)				
Balance at end of the year	1,171	1,229	1,455		

## 11. Recoverable taxes

The recoverable taxes, net of provision for losses of tax credits, are as follows:

	December 31, 2014	December 31, 2013
Value-added tax	1,057	1,129
Brazilian federal contributions	1,010	680
Others	34	55
Total	2,101	1,864
Current	1,700	1,579
Non-current	401	285
Total	2,101	1,864

#### 12. Investments

The changes of investments in associates and joint ventures are as follow:

	Ye	ear ended as at December 31,	
	2014	2013	2012
Balance at beginning of the year	3,584	6,384	8,013
Additions	220	378	474
Disposals		(98)	(32)
Transfer - Control acquisition	79		
Translation adjustment	(536)	(582)	(223)
Equity results	505	469	645
Equity on other comprehensive income	(2)	(204)	35
Dividends declared	(831)	(747)	(587)
Impairment (note 15)	(31)		(1,941)
Transfers to held for sale/ financial instruments - investments (i)	(110)	(2,016)	
Transfers from held for sale (ii)	1,255		
Balance at end of the year	4,133	3,584	6,384

<sup>(</sup>i) The transfers to held for sale refers to investments in Vale Florestar of US\$110 in 2014 and to investments in Hydro of US\$2,016 in 2013.

(ii) The transfers from held for sale refers to investments in VLI of US\$1,255.

# **Investments (Continued)**

<b>.</b>									- A D	
Joint ventures and associates	% ownership	% voting capital	December 31, 2014	of Year December 31, 2013		as at De 2013	2012	,	2013	cember 2012
Bulk Material	70 United Shirt	70 Young cuprent	2000111201 01, 2011	200011301 01, 2010					2010	
Iron Ore and pellets										
Baovale Mineração S.A.	50.00	50.00	16	24	4	(7)	6		1	1
Companhia Nipo-Brasileira										
de Pelotização (i)	51.00	51.11	142	159	66	19	22	48	24	26
Companhia										
Hispano-Brasileira de										
Pelotização (i)	50.89	51.00	80	83	24	1	38	11	10	36
Companhia										
Coreano-Brasileira de										
Pelotização	50.00	50.00	86	91	30	18	26	16	22	20
Companhia İtalo-Brasileira										
de Pelotização (i)	50.90	51.00	61	62	25	7	8	5		18
MRS Logística S.A.	47.59	46.75	510	564	76	101	122	44	63	57
Minas da Serra Geral S.A.	50.00	50.00	20	22	1		2			
Samarco Mineração S.A.	50.00	50.00	200	437	392	499	645	401	595	179
Tecnored Desenvolvimento				•			(20)			
Tecnológico S.A. (ii)		27.00		38	(1)	(11)	(20)			
Zhuhai YPM Pellet Co.	25.00	25.00	24	25	/ <b>1</b> =	<b>(25</b>	1		=4=	225
G 1			1,139	1,505	617	627	850	525	715	337
Coal										
Henan Longyu Energy	25.00	25.00	255	257	22	42	50	29	40	60
Resources Co., Ltd.	25.00	25.00	355	357	32	42	59	29	40	60
Base Metals										
Copper										
Teal Minerals Inc.	50.00	50.00	194	228	(35)	(24)	(5)			
Tear Willerais Ilic.	30.00	30.00	174	226	(33)	(24)	(3)			
Nickel										
Korea Nickel Corp.	25.00	25.00	21	22		(2)				
Rored Weker Corp.	23.00	23.00	21	22		(2)				
Others										
VLI S.A. (iii)	37.61	37.61	1.109		48					
, 21 31 11 (III)	27.01	27.01	1,107		.0					
Bauxite										
Mineração Rio Grande do										
Norte S.A.	40.00	40.00	91	111	7	10	20	8	17	7
Steel										
California Steel										
Industries, Inc.	50.00	50.00	184	181	12	20	16	6	6	9
Companhia Siderúrgica do										
Pecém (iv)	50.00	50.00	725	686	(44)	(10)	(7)			

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Thyssenkrupp Companhia Siderúrgica do Atlântico										
Ltd.	26.87	26.87	205	321	(60)	(158)	(169)			
			1,114	1,188	(92)	(148)	(160)	6	6	9
Other associates and joint										
ventures										
Norte Energia S.A. (iv)	4.59	4.59	91	83	(11)	(2)	(2)			
Others			19	90	(61)	(33)	(72)			
			110	173	<b>(72)</b>	(35)	<b>(74)</b>			
Disposal investments										
Norsk Hydro ASA							(35)		56	47
Logística Intermodal S.A.						(1)	(10)			
			4,133	3,584	505	469	645	568	834	460

<sup>(</sup>I) Although Vale held majority of the voting capital, the entities are accounted under equity method, due to existing veto rights held by other stockholders.

<sup>(</sup>II) Consolidated since March 2014.

<sup>(</sup>III) Considering the updated interest after the transaction described in note 6b.

<sup>(</sup>IV) Pre-operational stage.

# Investments (Continued)

	Location	Principal activity	Assets	Liabilities	December 31, 20  Adjusted stockholders equity	14 Adjusted operating results	Adjusted net income for the year	December 31, 2013 Adjusted net income for the year
Subsidiaries and affiliates								
Direct and indirect								
subsidiaries								
Aços Laminados do Pará								
S.A.	Brazil	Steel	125		125			(2)
Biopalma da Amazônia S.A.	Brazil	Energy	728	451	277	(82)	(148)	(145)
Companhia Portuária da	ъ и		107	50	1.45	224	1.40	120
Baía de Sepetiba	Brazil	Iron ore	197	52	145	224	148	120
Compañia Minera Miski	D.	TD	664	1.00	105	0	10	22
Mayo S.A.C.	Peru	Fertilizers	664	169	495	8	10	23
Mineração Corumbaense	D '1	Iron ore and	021	207	42.4	240	1.67	1.00
Reunida S.A.	Brazil	manganese	821	387	434	248	167	162
Minerações Brasileiras	D!1	T	2.077	649	2 220	158	150	(27)
Reunidas S.A. Potasio Rio Colorado S.A.	Brazil	Iron ore Fertilizers	2,977 583	28	2,328 555		(33)	(27)
Salobo Metais S.A.	Argentina Brazil	Copper	3,454	596	2,858	(30) 149	60	(2,723)
Tecnored Desenvolvimento	Diazii	Соррег	3,434	390	2,030	149	00	(31)
Tecnológico S.A.	Brazil	Iron ore	67	35	32	(27)	(28)	(22)
Vale International Holdings	Diazii	Holding and	07	33	32	(21)	(26)	(22)
GmbH	Austria	research	35,270	481	34,789	331	(6,108)	(913)
Vale Canada Holdings Inc.	Canada	Holding	12,359	10,429	1,930	(7)	(9)	(7)
Vale Canada Limited	Canada	Nickel	40,235	31,855	8,380	(449)	(229)	(812)
Vale Fertilizantes S.A.	Canada	TVICKCI	40,233	31,633	0,300	(447)	(22))	(612)
(Antiga Mineração Naque								
S.A.)	Brazil	Fertilizers	6,397	1,186	5,211	(1,254)	(897)	(2,801)
,	Bruzn	Trading and	0,577	1,100	3,211	(1,231)	(0)1)	(2,001)
Vale International S.A.	Switzerland	holding	63,454	31,457	31,997	(1,879)	(3,865)	(918)
Vale Malaysia Minerals Sdn.		8		,	,	(-,-,-)	(=,===)	(220)
Bhd.	Malaysia	Iron ore	1,408	184	1,224	(51)	(43)	32
W.1.34 A.G.A	,	Manganese and	,		,	,	` /	
Vale Manganês S.A.	Brazil	ferroalloys	381	109	272	62	24	(10)
Vale Moçambique S.A.	Mozambique	Coal	6,301	850	5,451	(6)	(161)	(34)
Vale Shipping Holding Pte.	•							
Ltd.	Singapore	Iron ore	3,034	236	2,798	43	224	175
Direct and indirect affiliates								
California Steel								
Industries, Inc.	USA	Steel	870	502	368	40	24	40
Companhia								
Coreano-Brasileira de								
Pelotização	Brazil	Pellets	203	31	172	53	60	36
Companhia								
Hispano-Brasileira de								
Pelotização	Brazil	Pellets	180	22	158	64	48	3

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Companhia Ítalo-Brasileira								
de Pelotização	Brazil	Pellets	157	37	120	64	49	14
Companhia Nipo-Brasileira								
de Pelotização	Brazil	Pellets	323	45	278	123	129	37
Companhia Siderúrgica do								
Pecém	Brazil	Steel	2,785	1,335	1,450	93	(88)	(22)
Henan Longyu Energy								
Resources Co., Ltd.	China	Coal	1,633	213	1,420	172	128	167
Mineração Rio Grande do								
Norte S.A.	Brazil	Bauxite	783	555	228	83	18	25
MRS Logística S.A.	Brazil	Iron ore	2,702	1,630	1,072	325	160	212
Norte Energia S.A.	Brazil	Energy	8,650	6,667	1,983	(32)	(122)	(19)
Samarco Mineração S.A.	Brazil	Pellets	6,048	5,648	400	1,503	784	998
Teal Minerals (Barbados)								
Inc.	Zambia	Copper	1,006	618	388	(51)	(70)	(47)
Thyssenkrupp Companhia								
Siderúrgica do Atlântico	Brazil	Steel	4,008	3,245	763	(120)	(223)	(588)
VLI S.A.	Brazil	Others	4,116	1,166	2,950	118	128	129
Zhuhai YPM Pellet Co	China	Pellets	233	137	96	1	2	1

# **Noncontrolling interests**

	Stockholde As o		Gain (loss) for the year Year ended as at December 31,			
	December 31, 2014	December 31, 2013	2014	2013	2012	
Biopalma da Amazônia S.A.	34	20	(35)	(43)	(25)	
Compañia Mineradora Miski						
Mayo S.A.C.	283	281	4	13	52	
PT Vale Indonesia Tbk	736	705	65	18	27	
Vale Moçambique S.A.	(57)	(38)	(26)	(13)	(10)	
Vale Nouvelle Caledonie S.A.S.	176	152	(348)	(68)	(225)	
Vale Oman Pelletizing LLC	67	67	7	12		
Outros	(40)	424	29	(97)	(76)	
	1.199	1.611	(304)	(178)	(257)	

#### 13. Intangible assets

	Cost	December 31, 2014 Amortization	Net	Cost	December 31, 2013 Amortization	Net
Indefinite useful life						
Goodwill	3,760		3,760	4,140		4,140
Finite useful life						
Concessions	3,421	(1,208)	2,213	3,099	(1,192)	1,907
Right of use	518	(221)	297	328	(75)	253
Software	1,356	(806)	550	1,295	(724)	571
	5,295	(2,235)	3,060	4,722	(1,991)	2,731
Total	9,055	(2,235)	6,820	8,862	(1,991)	6,871

Rights of use refers to the usufruct contract entered into with noncontrolling stockholders to use the shares of Empreendimentos Brasileiros de Mineração S.A. (owner of Minerações Brasileiras Reunidas S.A. shares) and intangible assets identified in the business combination of Vale Canada Limited ( Vale Canada ). The amortization of the right of use will expire in 2037 and Vale Canada s intangible will end in September of 2046. The concessions refer to the agreements with the brazilian government for the exploration and the development of ports and railways as shown in note 30d.

The table below shows the changes of intangible assets during the year:

	Goodwill	Concessions	Right of use	Software	Total
Balance on December 31, 2012	4,603	3,757	302	549	9,211
Additions		412		229	641
Disposals		(13)		(2)	(15)
Amortization		(181)	(27)	(133)	(341)
Transfer to held for sale		(1,686)			(1,686)
Translation adjustments	(463)	(508)	(22)	(72)	(1,065)
Net effect of discontinued operation in the year		126			126
Balance on December 31, 2013	4,140	1,907	253	571	6,871
Additions		835	102	252	1,189
Disposals		(6)			(6)
Amortization		(202)	(31)	(174)	(407)
Impairment (note 15)	(460)				(460)
Translation adjustments	(411)	(321)	(27)	(99)	(858)
Others	491				491
Balance on December 31, 2014	3,760	2,213	297	550	6,820

Of the total goodwill, US\$2,103 is allocated to the Nickel CGU which was tested using the Value in use method determined by cash flows based on approved budgets, considering mineral reserves and mineral resources calculated by internal experts, costs and investments based on the best estimate of past performance and approved budgets and sales prices using a range of (21,000 23,000 US\$/MT). Cash flows used are designed based on the life of each cash-generating unit (consumption of reserve units in the case of minerals) and considering a discount rates range of (7.5% - 8.9%).

# 14. Property, plant and equipment

		December 31, 2014 Accumulated			December 31, 2013 Accumulated	<i>'</i>		
	Cost	Depreciation	Net	Cost	Depreciation	Net		
Land	1,069		1,069	945		945		
Buildings	14,144	(2,490)	11,654	9,916	(2,131)	7,785		
Facilities	15,749	(4,936)	10,813	15,659	(4,722)	10,937		
Equipment	14,381	(5,094)	9,287	13,296	(4,892)	8,404		
Mineral properties	20,965	(6,036)	14,929	21,603	(5,327)	16,276		
Others	14,888	(3,934)	10,954	14,532	(4,013)	10,519		
Construction in progress	19,416		19,416	26,799		26,799		
	100,612	(22,490)	78,122	102,750	(21,085)	81,665		

Property, plant and equipment (net book value) pledged as guarantees for judicial claims on December 31, 2014, 2013 and 2012 corresponds to US\$68, US\$77 and US\$96, respectively.

The table below shows the movement of Property, plant and equipment during the year:

	Land	Building	Facilities	Equipment	Mineral properties	Others	Constructions in progress	Total
Balance on December 31,		9		• •	• •		• 0	
2012	676	6,093	11,756	7,273	18,867	11,281	28,936	84,882
Additions (i)							12,889	12,889
Disposals	(1)	(3)	(74)	(26)	(33)	(44)	(312)	(493)
Depreciation and amortization		(289)	(756)	(1,132)	(799)	(699)		(3,675)
Translation adjustments	(143)	(768)	(1,305)	128	(1,163)	(933)	(4,518)	(8,702)
Transfers	413	2,802	2,068	2,161	(592)	1,503	(8,355)	
Impairment (note 15)		(13)	(172)			(3)	(2,110)	(2,298)
Net effect of discontinued								
operation in the year		9	7		(4)	251	431	694
Transfer to held for sale		(46)	(587)			(837)	(162)	(1,632)
Balance on December 31,								
2013	945	7,785	10,937	8,404	16,276	10,519	26,799	81,665
Additions (i)							12,054	12,054
Disposals (ii)	(3)	(50)	(10)	(9)	(264)	(28)	(232)	(596)
Depreciation and amortization		(454)	(818)	(1,025)	(1,083)	(723)		(4,103)
Transfer to non-current assets								
held for sale			(10)	(49)	(85)	(2)	(2,764)	(2,910)
Impairment (note 15)		533	(47)	112	(1,255)	(18)	(17)	(692)

Translation adjustments	(75)	(1,412)	(2,407)	(992)	(132)	(1,238)	(1,040)	(7,296)
Transfers	202	5,252	3,168	2,846	1,472	2,444	(15,384)	
Balance on December 31,								
2014	1,069	11,654	10,813	9,287	14,929	10,954	19,416	78,122

<sup>(</sup>i) interest capitalized and ARO included, see cash flow.

<sup>(</sup>ii) includes the disposal of CoW Indonesia (note 30).

## 15. Impairment

According to the accounting policy describe in note 2p, the Company identified evidence of impairment in relation to certain investments, intangible and property, plant and equipment. The following impairment charges and reversals were recorded:

			December 31, 2014	
Assets	Cash-generating unit	Net carrying amount	Recoverable amount	Impairment (reversals) adjustment
Property, plant and				
equipment				
Coal	Australian assets (i)	480	137	343
Fertilizers	Brazilian assets	4,054	3,461	593
Nickel	Onça Puma operations	845	2,462	(1,617)
Nickel	New Caledonia operations	5,674	5,436	238
Iron ore projects	VGB - Vale BSGR Limited	1,135		1,135
		12,188	11,496	692
Intangible				
Fertilizers	Brazilian assets	460		460
		460		460
		12,648	11,496	1,152
Investment				
	Vale Soluções em Energia			
Energy	S.A.	31		31
		31		31

<sup>(</sup>i) Refers to Integra e Isaac Plains mining complex

			December 31, 2013	
Assets	Cash-generating unit	Net carrying amount	Recoverable amount	Impairment adjustment
Fertilizers	PRC	2,767	651	2,116
Pellets	Pelletizing asset	225	43	182
		2,992	694	2,298

# a) Property plant and equipment and intangible

## i. Coal

	4 1	••	
А	ustra	lian	assets

In May 2014, the Company announced that is taking the necessary steps to place its Integra and Isaac Plains mining complex, both in Australia, into care and maintenance since the operation is not economically feasible under current market conditions. As a consequence, the Company recognized an impairment of US\$343.

#### ii. Fertilizers

#### **Brazilian Assets**

In 2014, volatility of fertilizers products prices contributed to a decrease in the recoverable amount of the fertilizers assets.

The recoverable amount was determined by using discounted cash flow projections based on financial budgets approved by management over the life of the mine.

Management calculated the impairment using commodities prices based on market studies and a discount rate of 7.5%.

#### PRC

In 2013, the Company suspended the implementation of the Rio Colorado project in Argentina ( PRC ). The company will continue honoring its commitments related to the concessions and reviewing alternatives to enhance the project outcome in order to determine prospects for future project development.

In the fourth quarter of 2013, the Company concluded its analyses in relation to the PRC investment and used its best estimate, to determine the recoverable amount, in determining the fair value less cost to sell for purposes of the impairment charge. As a result the Company recognized an impairment charge of US\$2,116.

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iii. Nickel
Onça Puma operations
In 2012, due to incidents in both furnaces at Onça Puma, which resulted in a fifteen month stoppage of the operation, the Company recognized an impairment of US\$ 2,849. After the rebuild of one of the furnaces, operations resumed towards the end of 2013 and have now operated normally for more than one year. Accordingly, the Company reviewed and updated the recoverable amount of the operations, which resulted in the recognition of a partial recovery of the impairment charged in 2012. The amount recovered in 2014 was US\$1,617. For the test the Company used a price range (21,000 23,000 US\$/MT) and a discount rate of 7.5%.
New Caledonia operations
The operations of New Caledonia have experienced a number of challenges and incidents during the ramp-up period which has lead the Company to adopt a more conservative production ramp up curve that has resulted in the Company conducting an impairment test on the asset.
The recoverable amount was determined using discounted cash flow projections based on financial budgets approved by management over the life of the mine.
Management calculated the impairment using a commodity price range of (21,000 23,000 US\$/MT) and a discount rate of 7.79%.
As a result of the updated calculations an impairment charge of US\$238 was recorded in 2014.
iv. Pellets
Pelletizing assets

The Company analyzed the temporary stoppage of pelletizing plants in Brazil ar	nd the uncertainty resumption of operations resulted in the
revaluations of these assets with the respective impairment.	

#### v. Iron ore projects

#### **VGB - Vale BSGR Limited**

Vale s 51%-owned subsidiary VBG-Vale BSGR Limited (VBG) holds iron ore concession rights in Simandou South (Zogota) and iron ore exploration permits in Simandou North (Blocks 1 & 2) in Guinea. On April 25, 2014 the government of Guinea revoked VBG S mining concessions, based on the recommendation of a technical committee established pursuant to Guinean legislation. The decision is based on the allegations of fraudulent conduct in connection with the acquisition of licenses by BSGR (Vale's current partner in VBG) more than one year before Vale had made any investment in VBG. The decision does not indicate any involvement by Vale and therefore does not prohibit Vale to participate in any reallocation of the mining titles.

Vale is actively considering its legal rights towards the Guinean Government and its partner at VBG and addressing options to guarantee the value of both the investments made in Guinea project development as well as the initial investment made in the VBG. Considering the uncertainties in this process the Company recognized an impairment of the total amount invested in the project.

- b) Investment
- vi. Energy

Based on changes in the Company's strategy, which have affected the recoverable amount of this investment, Vale recognized an impairment.

# 16. Loans and financing

# a) Total debt

	Current liabilities		Non-current liabilities		
	December 31, 2014	December 31, 2013	December 31, 2014	December 31, 2013	
Debt contracts in the international markets					
Floating rates in:					
US dollars	358	334	5,095	4,662	
Others currencies		2	2	3	
Fixed rates in:					
US dollars	69	12	13,239	13,808	
Euro			1,822	2,066	
Accrued charges	334	350			
ŭ.	761	698	20,158	20,539	
Debt contracts in Brazil			,		
Floating rates in:					
Reais, indexed to TJLP, TR, IPCA, IGP-M and					
CDI	296	750	5,503	5,372	
Basket of currencies and US dollars indexed to					
LIBOR	211	175	1,364	1,365	
Fixed rates in:					
Reais	48	47	363	314	
US dollars		6		80	
Accrued charges	103	99			
_	658	1,077	7,230	7,131	
	1,419	1,775	27,388	27,670	

Below are the payments flows futures of debt (principal and interest), per nature of funding.

	Bank loans (i)	Capital market (i)	Development agencies (i)	Debt principal (i)	Estimated future payments of interest (ii)
2015	95	_	886	982	1,523
2016	35	951	971	1,957	1,520
2017	185	1,212	1,046	2,443	1,434
2018	1,888	911	1,170	3,969	1,328
2019	511	1,000	1,333	2,844	1,123
2020	342	1,119	860	2,321	999
Between 2021 and 2025	1,204	3,387	2,133	6,724	3,283

	4,677	15,082	8,610	28,370	17,036
2026 onwards	417	6,502	211	7,130	5,826

(i) Does not include accrued charges.

(ii) Consists of estimated future payments of interest on our loans, financings and debentures, calculated based on interest rate curves and foreign exchange rates applicable at December 31, 2014 and assuming that all amortization payments and payments at maturity on loans, financings and debentures will be made on their scheduled payments dates. This amount compound of the estimated values of future payments not still recognized, in addition to amounts accrued interest already recognized in the financial statements.

At December 31, 2014, the average annual interest rates by currency on the debt are as follows:

	Average interest rate (i)	Debt
Loans and financing in US dollars	4.54%	20,314
Loans and financing in Reais (ii)	9.55%	6,306
Loans and financing in Euros (iii)	4.06%	1,896
Loans and financing in others currencies	6.24%	291
		28,807

(i) In order to determine the average interest rate for debt contracts with floating rates, Vale used the last renegotiated rate at December 31, 2014.

(ii) Brazilian Real denominated debt that bears interest at IPCA, CDI and TJLP, plus spread. For a total of US\$ 5,202, the Company entered into derivative transactions to mitigate the exposure to the cash flow variations of the floating rate debt denominated in Brazilian Real, resulting in an average cost of 2.38% per year in US dollars.

(iii) Eurobonds, for which the Company entered into derivatives to mitigate the exposure to the cash flow variations of the debt denominated in Euros, resulting in an average cost of 4.42% per year in US dollars.

# b) Credit lines

					A	Amounts draw	n on
Type	Contractual currency	Date of agreement	Available until	Total amount	December 31, 2	2014	December 31, 2013
Revolving credit lines							
Revolving Credit							
Facility - Vale/ Vale							
International/ Vale							
Canada	US\$	April 2011	5 years	3,000			
Revolving Credit							
Facility - Vale/ Vale							
International/ Vale							
Canada	US\$	July 2013	5 years	2,000			
Credit Lines							
Export-Import Bank of							
China and Bank of							
China Limited	US\$	September 2010(i)	13 years	1,229		,062	985
BNDES	R\$	April 2008(ii)	10 years	2,748	1	,831	1,741
Financing							
BNDES - CLN 150	R\$	September 2012(iii)	10 years	1,462	1	,257	1,159
BNDES - Investment							
Sustaining Program							
3.0%	R\$	June 2013(iv)	10 years	41		41	33
BNDES - Tecnored	D.0.	D 1 2012()				20	
3.5%	R\$	December 2013(v)	8 years	51		28	
BNDES S11D/S11D	DΦ	M 2014( ')	10	2 220		702	
Logística	R\$	May 2014(vi)	10 years	2,320		703	
Canadian agency							
Export Development	TICO	I 2014(::)	5 1 7	775		775	
Canada	US\$	January 2014(vii)	5 and 7 years	775		775	

<sup>(</sup>i) Acquisition of twelve large ore carriers from chinese shipyards.

<sup>(</sup>ii) Memorandum of understanding signature date, however projects financing term is considered from the signature date of each projects contract amendment.

<sup>(</sup>iii) Capacitação Logística Norte 150 Project ( CLN 150 ).

<sup>(</sup>iv) Acquisition of domestic equipment.

<sup>(</sup>v) Support to Tecnored s investment plan from 2013 to 2015.

<sup>(</sup>vi) Iron ore project S11D and S11D Logistica implementation.

<sup>(</sup>vii) General corporate purpose.

Total amounts and amounts disbursed, when not contracted in the reporting currency, are affected by exchange rate variation among periods.

### c) Guarantees

As at December 31, 2014 and 2013, our financing and loans, in the amount of US\$1,312 and US\$1,456, respectively, was secured by property, plant and equipment and receivables.

The securities issued through Vale s wholly-owned finance subsidiary Vale Overseas Limited, are all fully and unconditionally guaranteed by Vale.

### d) Covenants

The main covenants of the Company require maintaining certain ratios, such as debt to EBITDA (Earnings before Interest Taxes, Depreciation and Amortization) and interest coverage. The Company has not identified any instances of noncompliance as of December 31, 2014 and 2013.

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### 17. Asset retirement obligations

The Company applies judgments and assumptions when measuring its obligations related to its asset retirement obligation. The accrued amounts of these obligations are not deducted from the potential costs covered by insurance or indemnities.

Long term interest rate used to discount these obligations to present values and to update the provisions on December 31, 2014 was of 5.51% p.a. (6.39% 2013) on Brazil, of 2.05% p.a. (3.23% 2013) on Canada and between 1.61% - 8.81% p.a. for the others localities. The liability is periodically updated based on this discount rate plus the inflation index for the year of each locality.

Changes in the provision for asset retirement obligation are as follows:

	December 31, 2014	December 31, 2013
Balance at beginning of the year	2,644	2,748
Increase expense	193	201
Settlement in the current year	(41)	(40)
Revisions in estimated cash flows	842	15
Translation adjustments	(269)	(276)
Transfer to held for sale		(4)
Balance at end of the year	3,369	2,644
Current	136	96
Non-current	3,233	2,548
	3,369	2,644

### 18. Litigation

### a) Provision for litigation

Vale is party to labor, civil, tax and other ongoing lawsuits and is discussing these issues both at administrative and court levels. When applicable, these lawsuits are supported by judicial deposits. Provisions for losses resulting from these processes are estimated and updated by the Company, supported by legal advice of the legal board of the Company and by its legal consultants.

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	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
Balance on December 31, 2012	996	287	748	34	2,065
Additions	19,459	79	252	7	19,797
Reversals	(10,083)	(72)	(160)	(12)	(10,327)
Payments	(2,924)	(154)	(82)		(3,160)
Indexation and interest	(30)	121	75	3	169
Translation adjustment	(110)	(43)	(95)	(5)	(253)
Transfer to income taxes - settlement program	(6,977)				(6,977)
Net movements of discontinued operation in the					
year	(1)	(3)	(2)		(6)
Transfer to held for sale		(6)	(27)	1	(32)
Balance on December 31, 2013	330	209	709	28	1,276
Additions	103	54	237	32	426
Reversals	(2)	(104)	(133)	(13)	(252)
Payments	(37)	(20)	(48)		(105)
Indexation and interest	136	(6)	52	52	234
Translation adjustment	(164)	(15)	(111)	(7)	(297)
Balance on December 31, 2014	366	118	706	92	1,282

**Provisions for tax litigation** - the nature of tax contingencies balances refer to discussions on the basis of calculations made for the Financial Compensation for Exploiting Mineral Resources ( CFEM ) as well as denials of compensation claims of credits in the settlement of federal taxes in Brazil, and mining taxes at the foreign subsidiaries. The other causes refer to the charges of Additional Port Workers Compensation ( AITP ) and questioning about the location for the purpose of assessment of Service Tax ( ISS ).

**Provisions for civil litigation** - relates to demands concerning contracts between Vale and unrelated service suppliers companies, concerning differences in amounts due to alleged losses that have occurred due to various economic plans, while other demands are related to accidents, actions damages and other demands.

**Provisions for labor and social security litigation** - consist of lawsuits filed by employees and service suppliers, related to employment relationships. The most recurring claims are related to payment of overtime, hours in itinerary, and health and safety. The social security ( INSS ) contingencies are related to legal and administrative disputes between INSS and Vale due to applicability of compulsory social security charges.

### b) Contingent liabilities

The Company discusses, at administrative and judicial levels, claims where the expectation of loss is classified as possible and has determinate that there is no need to recognize a provision, based on legal support.

These possible contingent liabilities are as follows:

	December 31, 2014	December 31, 2013
Tax litigation	6,094	3,789
Civil litigation	1,406	768
Labor litigation	1,955	2,900
Environmental litigation	1,122	1,165
Total	10,577	8,622

The categories of contingent liabilities in the table above include the following:

**Tax litigation** - the most significant claims relate to pending challenges by the Brazilian federal tax authority concerning the deductibility of Brazilian social contribution payments for income tax purposes (approximately US\$1,995) and demands by Brazilian state tax authorities for additional payments of the value-added tax on services and circulation of goods ( ICMS ) in relation to the use of ICMS credits from sales and energy transmission.

**Civil litigation** - most of these claim have been filed by suppliers for indemnification under construction contracts, primarily relating to certain alleged damages, payments and contractual penalties. A number of other claims involve disputed contractual terms for inflation indexation.

**Labor litigation -** these claims represent a very large number of individual claims by (i) employees and service providers, primarily involving demands for additional compensation for overtime work, time spent commuting or health and safety conditions; and (ii) the Brazilian federal social security administration ( INSS ) regarding contributions on compensation programs based on profits.

**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 those provisions and contingent liabilities, there are also judicial deposits. These court-ordered deposits are legally required and are monetarily updated and reported in non-current assets until a judicial decision to draw the deposit occurs, in case of a non-favorable decision to Vale.

Judicial deposits are as follows:

	December 31, 2014	December 31, 2013
Tax litigations	354	433
Civil litigations	126	176
Labor litigations	789	870
Environmental litigations		11
Total	1,269	1,490

### 19. Income taxes settlement program ( REFIS )

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

The total obligation for REFIS was US\$9.6 billion, including the upfront payments and the first installment of US\$2.6 billion in 2013 and during 2014, US\$494 related to twelve monthly installments. On December 31, 2014, the balance of US\$6,320 (US\$457 in current and US\$5,863 in non-current) is due in 166 monthly installments, bearing interest at the SELIC rate.

The effects of the statement of income as at December 31, 2014 and 2013 are summarized as follows:

	2014	2013
Financial expense		
Initial recognition of interest/fines		(12,162)
SELIC Rate charge on REFIS	(683)	9,525
Net increase on financial expenses	(683)	(2,637)
Income tax expense		
Recognition of obligation		(7,460)
Tax effect of deductibility of interest/fines	232	2,841
Other effects		786
	232	(3,833)
Amount related to discontinued operation		(216)
Net effect on income tax expense - continued operations	232	(4,049)
Total effect on statement of income	(451)	(6,686)

### 20. Income taxes

The Company analyzes the potential tax impact associated with undistributed earnings of each subsidiary. As described in note 19, the Company entered into the Brazilian REFIS program to pay the amounts related to the collection of income taxes on equity earning of foreign subsidiaries and affiliates from 2003 to 2012 and therefore, the repatriation of these earnings would have no Brazilian tax consequences.

The Law 12,973, 2014 brings changes in taxation of Brazilian companies on profits and income earned abroad through direct and indirect subsidiaries with effect from of the year 2015. As a rule, the new Brazilian tax legislation is intended tax on an accrual basis the profits earned by the direct and indirect subsidiaries in accordance with local practices and on a cash basis the profits of associated companies, being accepted the tax credit when it is paid abroad. Since met certain conditions of the law, is expected option to: (1) the consolidation of income (profit and loss) of direct and indirect subsidiaries eligible by the year 2022; (2) the payment within eight years of the tax generated by the taxation of profits of eligible companies.

The net deferred balances were as follows:

	December 31, 2014	December 31, 2013
Taxes losses carryfoward	1,637	2,053
Temporary differences:		
Pension plan	671	643
Provision for litigation	365	341
Provision for losses of assets	937	962
Fair value of financial instruments	1,341	1,075
Allocated goodwill	(4,831)	(4,774)
Impairment	733	1,222
Others	(218)	(227)
	(1,002)	(758)
Total	635	1,295
Assets	3,976	4,523
Liabilities	(3,341)	(3,228)
	635	1,295

	Assets	Liabilities	Total
Balance on December 31, 2012	4,053	3,427	626
Net income effect	791	(162)	953
Translation adjustment	(463)	(182)	(281)
Constitution/Reversal of Tax Carryforward	187		187
Other comprehensive income	(45)	227	(272)
Net movements of discontinued operation	283	(3)	286
Transfer to held for sale	(283)	(79)	(204)
Balance on December 31, 2013	4,523	3,228	1,295
Net income effect	(31)	118	(149)
Transfers	58	491	(433)
Translation adjustment	(452)	(292)	(160)
Transfer between assets and liabilities	(160)	(160)	
Other comprehensive income	38	(44)	82
Balance on December 31, 2014	3,976	3,341	635

Deferred tax assets arising from tax losses, negative social contribution basis and temporary differences are registered taking into consideration the analysis of future performance, based on economic and financial projections, prepared based on internal assumptions and macroeconomic, trade and tax scenarios that may be subject to changes in future.

The income tax in Brazil is comprised of taxation on income and social contribution on profit. The statutory rate applicable in the period presented is 34%. In other countries where the Company has operations, it is subject to various rates, depending on jurisdiction.

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

	Year 2014	r ended as at December 31, 2013	2012
Net income before income taxes	1,553	7,241	4,091
Income taxes at statutory rates - 34%	(528)	(2,462)	(1,391)
Adjustments that affect the basis of taxes:			
Income tax benefit from interest on stockholders equity	1,123	1,167	1,337
Tax incentives	95		204
Results of overseas companies taxed by different rates which differs			
from the parent company rate	(1,200)	146	208
Results of equity investments	172	173	219
Undeductible impairment	(450)	(719)	(359)
Reversal of deferred tax liabilities			1,236
Constitution/reversal for tax loss carryforward	(178)	180	(228)
Income taxes statement program - REFIS (note 19)		(4,954)	

Other (i)	(234)	(364)	(52)
Income taxes on the profit for the year	(1,200)	(6,833)	1,174

(i) Include mainly provisional tax on export sale.

#### Tax incentives

In Brazil, Vale has a tax incentive for the partial reduction of income tax due to the amount equivalent to the portion allocated by tax law to transactions in the north and northeast regions with iron, pellets, railroad, manganese, copper, nickel and potash. The incentive is calculated based on the tax profit of the activity (called operating income), takes into consideration the allocation of operating profit by incentive production levels during the periods specified for each product as grantees, and generally, for 10 years and in the case of the Company it does not expire until 2023. An amount equal to that obtained with the tax saving must be appropriated in a retained earnings reserve account in Stockholders equity, and may not be distributed as dividends to stockholders.

Vale benefits from the allocation of part of income tax due to be reinvested in the purchase of equipment, subject to subsequent approval by the regulatory agency in the incentive area of Superintendence for the Development of Amazonia (SUDAM) and the Superintendence for the Development of Northeast (SUDENE). When the reinvestment is approved, the tax benefit is also appropriate in retained earnings reserve, which restricts the distribution as dividends to stockholders.

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Vale also has tax incentives related to the production of nickel and cobalt from Vale Nouvelle Caledonie SAS (VNC). These incentives include the exemption of income tax during the construction phase of the project, and also for a period of 15 years beginning in the first year of commercial production, as defined by applicable law, followed by a 5 year 50% exemption of income tax. VNC is subject to a branch profit tax on its profits (after deducting available tax losses) starting in the first year that commercial production is reached, as defined by applicable law. To date, there has been no net taxable income realized in VNC.

In Mozambique, the tax incentives applicable to Vale Mozambique SA for the Moatize Coal Mine Project include a 25% reduction of rate for five years counting from the first year the company has taxable profits. Vale also received tax incentives for projects in Oman and Malaysia.

Vale is subject to the revision of income tax by local tax authorities for up to five years in companies operating in Brazil, ten years for operations in Indonesia and up to seven years for companies with operations in Canada.

### 21. Employee benefits obligations

### a) Employee postretirements obligations

In Brazil, the management of the pension plans of the Company is the responsibility of the Fundação Vale do Rio Doce de Seguridade Social (Valia) a nonprofit private entity with administrative and financial autonomy. The Brazilian plans are as follows:

Benefit plan Vale Mais ( Vale Mais ) and benefit plan Valiaprev ( Valiaprev )

Certain of the Company s employees are participants in a plan (Vale Mais e Valiaprev) with components of defined benefit (specific coverage for death, pensions and disability allowances) and components of defined contributions (for programmable benefits). The defined benefits plan is subject to actuarial evaluations. The defined contribution plan represents a fixed amount held on behalf of the participants. Both Vale Mais and Valiaprev were overfunded as at December 31, 2014 and 2013.

Defined benefit plan ( Plano BD )

The Company also sponsors a pension plan with defined benefit characteristics, covering almost exclusively retirees and their beneficiaries. Currently the plan does not accept new participants, was overfunded as at December 31, 2014 and 2013 and contributions by the Company are not significant.

### Abono complementação

The Company sponsors a specific group of former employees entitled to receive additional benefits from Valia normal payments plus post-retirement benefit that covers medical, dental and pharmaceutical assistance. The abono complementação benefit was overfunded as at December 31, 2014 and 2013.

#### Other benefits

The Company sponsors medical plans for employees that meet specific criteria and for employees who use the abono complementação benefit. Although those benefits are not specific retirement plans, actuarial calculations are used to calculate future commitments. As those benefits are related to health care plans they have the nature of underfunded benefits, and are presented as underfunded plans as at December 31, 2014 and 2013.

The Foreign plans are managed in accordance with the region and centralized in Vale Canada Limited. They are divided between plans in Canada, United States of America, United Kingdom, Indonesia, New Caledonia, Japan and Taiwan. Pension plans in Canada are composed of a defined benefit and defined contribution component and are the most relevant. Currently the defined benefit plans in other regions do not allow new memberships. Plans abroad are underfunded as at December 31, 2014 and 2013.

Employers disclosure about pensions and other post-retirement benefits on the status of the defined benefit elements of all plans is provided as follows:

# i. Change in benefit obligation

	Overfunded pension plans	Underfunded pension plans	Others underfunded pension plans
Benefit obligation as at December 31, 2012	3,567	7,156	2,045
Service costs	49	97	42
Interest costs	461	220	131
Benefits paid	(312)	(334)	(76)
Participant contributions	1		
Plan amendments			(16)
Transfers	1,910	(1,907)	
Effect of changes in the actuarial assumptions	(1,059)	(269)	(249)
Effect of business combinations		2	
Translation adjustment	(537)	(559)	(184)
Benefit obligation as at December 31, 2013	4,080	4,406	1,693
Service Costs	29	96	23
Interest Costs	474	233	83
Benefits paid	(327)	(321)	(74)
Participant contributions	1		
Effect of changes in the actuarial assumptions	(32)	454	(81)
Translation adjustment	(497)	(347)	(146)
Benefit obligation as at December 31, 2014	3,728	4,521	1,498

# ii. Evolution of the fair value of assets

	Overfunded pension plans	Underfunded pension plans	Others underfunded pension plans
Fair value of plan assets as at December 31, 2012	4,412	5,685	1
Transfers	1,765	(1,763)	
Interest income	523	168	
Employer contributions	141	190	76
Participant contributions	1		
Benefits paid	(312)	(334)	(76)
Plan settlements		(91)	
Return on plan assets (excluding interest income)	(576)	315	
Translation adjustment	(683)	(366)	(1)
Fair value of plan assets as at December 31, 2013	5,271	3,804	

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Interest income	625	201	
Employer contributions	132	164	74
Participant contributions	1		
Benefits paid	(327)	(321)	(74)
Plan settlements		(3)	
Return on plan assets (excluding interest income)	(2)	169	
Translation adjustment	(671)	(298)	
Fair value of plan assets as at December 31, 2014	5,029	3,716	

# iii. Reconciliation of assets and liabilities in balance sheet

	Plans in Brazil					
	0 6 1 1	December 31, 2014	Others	0 6 11	December 31, 2013	Others
	Overfunded pension plans	Underfunded pension plans	underfunded pension plans	Overfunded pension plans	Underfunded pension plans	underfunded pension plans
Ceiling recognition of an asset (ceiling) / onerous liability		•	, ,			
Beginning of the year	1,191			844		
Interest income	142			71		
Changes in asset ceiling/ onerous liability	140			422		
Translation adjustment	(172)			(146)		
Ended of the year	1,301			1,191		
Ended of the year	1,501			1,171		
Amount recognized in the						
balance sheet						
Present value of actuarial						
liabilities	(3,728)	(387)	(246)	(4,080)	(442)	(276)
Fair value of assets	5,029	349		5,271	423	
Effect of the asset ceiling	(1,301)			(1,191)		
Assets (liabilities)						
provisioned		(38)	(246)		(19)	(276)
Current liabilities			(25)			(23)
Non-current liabilities		(38)	(221)		(19)	(253)
Assets (liabilities)						
provisioned		(38)	(246)		(19)	(276)
			44			

	Foreign plan					
		December 31, 2014			December 31, 2013	
	Overfunded	Underfunded	Others underfunded	Overfunded	Underfunded	Others underfunded
	pension plans	pension plans	pension plans	pension plans	pension plans	pension plans
Amount recognized in the	pension puns	pension pinns	ponoron panio	pension piuns	pension pinns	pension plans
balance sheet						
Present value of actuarial						
liabilities		(4,134)	(1,252)		(3,964)	(1,417)
Fair value of assets		3,367	, ,		3,381	,
Assets (liabilities)						
provisioned		(767)	(1,252)		(583)	(1,417)
Current liabilities		(16)	(26)		(9)	(65)
Non-current liabilities		(751)	(1,226)		(574)	(1,352)
Assets (liabilities)						
provisioned		(767)	(1,252)		(583)	(1,417)
			To	tal		
		December 31, 2014			December 31, 2013	
	0 . 6 . 1. 1	77 . 1 6 1 . 1	Others	0 . 6 . 1 . 1	11.1.6.1.1	Others
	Overfunded pension plans	Underfunded pension plans	underfunded pension plans	Overfunded pension plans	Underfunded pension plans	underfunded pension plans
Ceiling recognition of an	pension plans	pension plans	pension plans	pension plans	pension plans	pension plans
asset (ceiling) / onerous						
liability						
Beginning of the year	1,191			844		
Interest income	142			71		
Changes in asset ceiling/						
onerous liability	140			422		
Translation adjustment	(172)			(146)		
Ended of the year	1,301			1,191		
·	ŕ			,		
Amount recognized in						
the balance sheet						
Present value of actuarial						
liabilities	(3,728)	(4,521)	(1,498)	(4,080)	(4,406)	(1,693)
Fair value of assets	5,029	3,716		5,271	3,804	
Effect of the asset ceiling	(1,301)			(1,191)		
Assets (liabilities)						
provisioned		(805)	(1,498)		(602)	(1,693)
		(10)	(51)		(0)	(00)
Current liabilities		(16)	(51)		(9)	(88)
Non-current liabilities		(789)	(1,447)		(593)	(1,605)
Assets (liabilities)		(005)	(1.400)		((02)	(1 (02)
provisioned		(805)	(1,498)		(602)	(1,693)

# iv. Costs recognized in the statements of income

	Year ended as at December 31,								
		2014			2013			2012	
			Others			Others			Others
	Overfunded pension plans	Underfunded pension plans	underfunded pension plans	Overfunded pension plans	Underfunded pension plans	underfunded pension plans	Overfunded pension plans	Underfunded pension plans	underfunded pension plans
Current	pension plans	pension plans	pension plans	pension plans	pension plans	pension plans	pension plans	pension plans	pension plans
service									
cost	29	96	23	49	97	42		114	35
Interest on expense									
on									
liabilities	474	233	83	461	220	131	309	403	99
Interest									
income on									
plan assets	(625)	(201)		(523)	(169)		(469)	(384)	
Interest expense on effect of (asset ceiling)/ onerous									
liability	142			13			160	12	
Total of									
cost, net	20	128	106		148	173		145	134

# v. Costs recognized in the statement of comprehensive income for the year

				Year ei	nded as at Dece	mber 31,			
		2014			2013			2012	
	Overfunded pension plans	Underfunded pension plans	Others underfunded pension plans	Overfunded pension plans	Underfunded pension plans	Others underfunded pension plans	Overfunded pension plans	Underfunded pension plans	Others underfunded pension plans
Beginning of	•	•	•	•	•	•	•	•	•
the period	(94)	(395)	(196)	(3)	(994)	(381)	(4)	(529)	(180)
Effect of									
changes actuarial									
assumptions	32	(454)	81	1,059	267	249	(684)	(1,121)	(301)
Return on plan									
assets (excluding									
interest income)	(2)	169		(576)	315		(79)	412	
Change of asset ceiling / costly liabilities									
(excluding									
interest income)	(133)			(423)			763	83	
Others	(102)	28	0.4		<b></b>	• 40		(60.0)	(204)
	(103)	(257)	81	60	582	249		(626)	(301)
Deferred income									
tax	34	68	(17)	(19)	(167)	(75)		182	90
Others									
comprehensive	(60)	(100)		44	41.5	154		(444)	(211)
income	(69)	(189)	64	41	415	174		(444)	(211)
Conversion	20	2		10		12		(21)	10
effect	20	2	6	10	11	12	1	(21)	10
Transfers/		10	(6)	(1.40)	172	(1)			
disposal	(1.42)	12	(6)			(1)		(00.4)	(201)
Accumulated other comprehensive	(143)	(570)	(132)	(94)	(395)	(196)	(3)	(994)	(381)

#### income

### vi. Risks related to plans

The Administrators of the plans have committed to strategic planning to strengthen internal controls and risk management. This commitment is archive by conducting audits of internal controls, which aim to mitigate operational risks in routine management of market risk and credit activities.

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Risks are presented as follow:
<b>Legal -</b> lawsuits: issuing periodic reports to internal audit and directors contemplating the analysis of lawyers about the possibility of loss (remote, probable or possible), aiming to support the administrative decision regarding provisioning.
Contracts, tax and decision-making process: previous legal analysis through technical advice.
Analysis and ongoing monitoring of developments in the legal scenario and its dissemination within the institution in order to subsidize the administrative plans, considered the impact of regulatory changes.
<b>Actuarial</b> - the annual actuarial valuation of the benefit plans comprises the assessment of costs, revenues and adequacy of plan funding. It also considered the monitoring of biometric, economic and financial assumptions (asset volatility, changes in interest rates, inflation, life expectancy, salaries and other).
Market - profitability projections are performed for the various plans and profiles of investments for 10 years in the management study of assets and liabilities. These projections include the risks of investments in various market segments. Furthermore, the risks for short-term market of the plans are monitored monthly through metrics of VaR (Value at Risk) and stress testing. For exclusive investment funds of Valia, the market risk is measured daily by the custodian asset bank.
<b>Credit</b> - assessment of the credit quality of issuers by hiring expert consultants to evaluate financial institutions and internal assessment of payment ability of non-financial companies. For assets of non-financial companies is conducted a monitoring of the company until the maturity of the security.
vii. Actuarial and economic assumptions and sensitivity analysis
All calculations involve future actuarial projections about some parameters, such as: salaries, interest, inflation, the behavior of INSS benefits, mortality, disability, etc.

The economic actuarial assumptions adopted have been formulated considering the long-term period for maturity and should therefore be examined accordingly. So, in the short term, they may not necessarily be realized.

In the evaluations were adopted the following assumptions:

		D	Bra	azil	Danish and 21, 2012	
	Overfunded pension plans	December 31, 2014 Underfunded pension plans	Others underfunded pension plans	Overfunded pension plans	December 31, 2013 Underfunded pension plans	Others underfunded pension plans
Discount rate to determine benefit						
obligation Nominal average rate to determine expense/	12.70%	6 12.54%	12.39%	12.13%	12.46%	12.57%
(income) Nominal average rate of salary	12.37%		N/A	9.98%		N/A
Nominal average rate of benefit	6.94%		N/A	6.00%		N/A
increase Immediate health care cost trend		6.00%	6.00%	6.00%	6.00%	6.00%
rate Ultimate health care cost trend	N/A	N/A	9.18%	% N/A	N/A	9.18%
rate Nominal average rate of price	N/A	N/A	9.18%		N/A	9.18%
inflation	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%

	Foreign							
	December 31, 2	2014	December 31,	2013				
		Others underfunded		Others underfunded				
	Underfunded pension plans	pension plans	Underfunded pension plans	pension plans				
Discount rate to determine								
benefit obligation	3.89%	4.10%	4.80%	5.40%				
Nominal average rate to								
determine expense/								
(income)	4.80%	N/A	4.80%	N/A				
Nominal average rate of								
salary increase	3.90%	N/A	4.00%	3.00%				
Nominal average rate of								
benefit increase	3.90%	3.00%	4.00%	3.00%				
Immediate health care								
cost trend rate	N/A	7.22%	N/A	7.00%				
Ultimate health care cost								
trend rate	N/A	4.49%	N/A	4.45%				
	2.00%	2.00%	2.00%	2.00%				

# Nominal average rate of price inflation

For the sensitivity analysis, the Company considers the effect of 1% in nominal discount rate to determine the actuarial liability. The effects of this change in actuarial liabilities in premise and adopted the average duration of the plan are shown below:

	December 31, 2014						
	Overfunded pension plans	Underfunded pension plans	Others underfunded pension plans				
Nominal discount rate - 1%			Î.				
increase							
Actuarial liability balance	3,368	3,646	1,297				
Assumptions made	13.36%	4.91%	6.50%				
Average duration of the obligation -							
(years)	10.17	12.43	15.61				
Nominal discount rate - 1%							
reduction	4,160	4,692	1,745				
Assumptions made	11.36%	2.91%	4.36%				
Average duration of the obligation -							
(years)	10.98	12.44	15.94				
	46	5					

### viii. Assets of pension plans

Brazilian plan assets as at December 31, 2014 and 2013 include respectively (i) investments in a portfolio of Vale s stock amounting to US\$94 and US\$206; (ii) equity investments from related parties amounting to US\$1 and US\$6; and (iii) Brazilian Federal Government in securities of US\$3,581 and US\$3,293.

Foreign plan assets as at December 31, 2014 and 2013 included Canadian Government securities amounted to US\$852 and US\$789, respectively.

# ix. Overfunded pension plans

Assets by category are as follows:

	December 31, 2014			December 31, 2013				
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets by category								
Accounts Receivable	5			5	3			3
Equity securities	475			475	870			870
Debt securities - Corporate								
bonds		157		157		197		197
Debt securities - Government								
bonds	2,106			2,106	1,730			1,730
Investments funds - Fixed								
Income	2,272			2,272	2,702			2,702
Investments funds - Equity	333			333	340			340
International investments					10			10
Structured investments - Private								
Equity funds			253	253			227	227
Structured investments - Real								
estate funds			7	7			8	8
Real estate			498	498			547	547
Loans to participants			403	403			431	431
Total	5,191	157	1,161	6,509	5,655	197	1,213	7,065
Funds not related to risk plans				(1,480)				(1,794)
Fair value of plan assets at end								
of year				5,029				5,271

Measurement of overfunded plan assets at fair value with no observable market variables - level 3:

				Loans to	
	Private equity funds	Real state funds	Real state	participants	Total
Balance as at December 31, 2012	192	8	458	195	853
Actual return on plan assets	13		95	48	156
Assets purchases and settlements	29			236	265
Assets sold during the year	(18)		(42)	(196)	(256)
Translation adjustment	(30)		(71)	(47)	(148)
Transfers in and/ out of Level 3	41		107	195	343
Balance as at December 31, 2013	227	8	547	431	1,213
Actual return on plan assets	(12)		56	52	96
Assets purchases, sales and settlements	88		3	186	277
Assets sold during the year	(17)		(42)	(211)	(270)
Translation adjustment	(33)	(1)	(67)	(54)	(155)
Transfers in and/ out of Level 3					
Balance as at December 31, 2014	253	7	497	404	1,161

# x. Underfunded pension plans

Assets by category are as follows:

	<b>December 31, 2014</b>			December 31, 2013				
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets by category								
Cash and cash equivalents	1	29		30	105	(32)		73
Equity securities	1,615	9		1,624	1,527	8		1,535
Debt securities - Corporate								
bonds		402		402		370		370
Debt securities - Government								
bonds	77	853		930	182	790		972
Investments funds - Fixed								
Income	189			189	112			112
Investments funds - Equity	95	397		492	249	469		718
Structured investments - Private								
Equity funds			18	18				
Real estate			24	24			24	24
Loans to participants			7	7				
Total	1,977	1,690	49	3,716	2,175	1,605	24	3,804
Fair value of plan assets at end	·			Í	•	ĺ		
of year				3,716				3,804

Measurement of overfunded plan assets at fair value with no observable market variables - Level 3

				Loans to	
	Private equity funds	Real state funds	Real state	participants	Total
Balance as at December 31, 2012	43		142	207	392
Translation adjustment	(2)		(35)	(12)	(49)
Transfers in and/ out of Level 3	(41)		(83)	(195)	(319)
Balance as at December 31, 2013			24		24
Actual return on plan assets			4		4
Assets purchases, sales and					
settlements	20			7	27
Translation adjustment	(2)		(4)		(6)
Transfers in and/ out of Level 3					
Balance as at December 31, 2014	18		24	7	49

# xi. Disbursement of future cash flow

Vale expects to disburse US\$257 in 2015 in relation to pension plans and other benefits.

### xii. Expected benefit payments

The following table presents the expected benefit payments, which reflect future services:

	Overfunded pension plans	December 31, 2014 Underfunded pension plans	Others underfunded pension plans
2015	287	237	69
2016	304	234	72
2017	323	230	74
2018	341	227	78
2019	361	224	81
2020 and thereafter	2,102	1,106	378

# b) Profit sharing program ( PLR )

The Company has a profit sharing program ( PLR ) measured on the evaluation of individual and collective performance of its employees.

The PPR is calculated according to the achievement of goals of the employees and to the results of the Company. The model of PLR was approved by the Board of Directors and discussed with the unions.

The Company accrued expenses and costs related to participation in the results as follow:

		Year ended as at December 31,				
	2014	2013	2012			
Operational expenses	130	215	414			
Cost of goods sold and services rendered	372	423	488			
Total	502	638	902			

### c) Long-term stock option compensation plan

In order to promote stockholder cultures, in addition to increasing the ability to retain executives and to strengthen the culture of sustainability performance, Vale has a long-term incentive programs (Matching plan and long-term incentive plan ILP) for some executives of the Company, covering 3 to 4 years cycles.

For the Matching plan, the participants may acquire preferred stocks of Vale to participate on the plan, through a prescribed financial institution under market conditions and without any benefit being provided by Vale. Since 2014, the participation on the program has been mandatory for the executive officers.

The shares purchased by executive have no restrictions and can be sold at any time. However, the shares need to be held for a period of three years, and the executives need to maintain their employment relationship with Vale during this period the participant shall be entitled, as long as the shares are not sold and employment relationship is maintained, to receive from Vale, a payment in cash equivalent to the value of their stock holdings under this scheme based on market quotations. The total number of stocks linked to the plan as at December 31, 2014 and 2013 was 6,710,413 and 6,214,288, respectively.

For ILP plan, certain eligible executives have the opportunity to receive at the end of a four year cycle a monetary value equivalent to market value of a determined number of stocks based on an assessment of their careers and performance factors measured as an indicator of total return to the Stockholders.

Liabilities are measured at fair value on the date of each issuance of the report, based on market rates. Compensation costs incurred are recognized by the defined vesting period of three years. At December 31, 2014, 2013 and 2012, the Company recorded a liability with impact in the statement of income of US\$61, US\$84 and US\$87, respectively.

### 22. Classification of financial instruments

The classification of financial assets and liabilities is as follows:

	Loans and receivables (i)	December 31, 2014 At fair value through profit or loss (ii)	Derivatives designated as hedge (iii)	Total
Financial assets	(,	,	- · · <b>g</b> · ( )	
Current				
Cash and cash equivalents	3,974			3,974
Financial investments	148			148
Derivative financial				
instruments		166		166
Accounts receivable	3,275			3,275
Related parties	579			579
	7,976	166		8,142
Non-current				
Related parties	35			35
Loans and financing				
agreements receivable	229			229
Derivative financial				
instruments		87		87

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	264	87		351
Total of assets	8,240	253		8,493
Financial liabilities				
Current				
Suppliers and contractors	4,354			4,354
Derivative financial				
instruments		956	460	1,416
Loans and financing	1,419			1,419
Related parties	306			306
	6,079	956	460	7,495
Non-current				
Derivative financial				
instruments		1,609	1	1,610
Loans and financing	27,388			27,388
Related parties	109			109
Participative stockholders				
debentures		1,726		1,726
Others (iv)		115		115
	27,497	3,450	1	30,948
Total of liabilities	33,576	4,406	461	38,443

<sup>(</sup>i) Non-derivative financial instruments with identifiable cash flow.

<sup>(</sup>ii) Financial instruments for trading in short-term.

<sup>(</sup>iii) See note 24a.

<sup>(</sup>iv) See note 23a.

December 31, 2013 **Derivatives** Loans and receivables At fair value through designated as hedge Available for sale Total profit or loss (ii) (iii) (i) Financial assets Current Cash and cash equivalents 5,321 5,321 Financial investments 3 3 Derivative financial 196 instruments 201 Accounts receivable 5,703 5,703 Related parties 261 261 196 11,288 5 11,489 Non-current 108 108 Related parties Loans and financing agreements receivable 241 241 Derivative financial 140 140 instruments Others 5 5 349 494 140 5 Total of assets 11,637 336 5 5 11,983 Financial liabilities Current Suppliers and contractors 3,772 3,772 Derivative financial 199 39 238 instruments Loans and financing 1,775 1,775 Related parties 205 205 199 39 5,752 5,990 Non-current Derivative financial 1,492 instruments 1,480 12 27,670 Loans and financing 27,670 Related parties 5 5 Participative stockholders debentures 1,775 1,775 27,675 3,255 12 30,942

3,454

51

33,427

Total of liabilities

36,932

<sup>(</sup>i) Non-derivative financial instruments with identifiable cash flow.

<sup>(</sup>ii) Financial instruments for trading in short-term.

<sup>(</sup>iii) See note 24a.

The classification of financial assets and liabilities by currencies are as follows:

			D	ecember 31, 2014	ļ		
	R\$	US\$	CAD	AUD	EUR	Others currencies	Total
Financial assets	КФ	USÞ	CAD	AUD	ŁUK	currencies	Totai
Current							
Cash and cash equivalents	977	2,778	22	38	61	98	3,974
Financial investments	148	2,770	22	30	O1	70	148
Derivative financial instruments	139	27					166
Accounts receivable	740	2,514	12		8	1	3,275
Related parties	397	182	12		- U	1	579
reduced parties	2,401	5,501	34	38	69	99	8,142
Non-current	_,	-,					-,
Related parties	4	31					35
Loans and financing agreements							
receivable	39	190					229
Derivative financial instruments	11	76					87
	54	297					351
Total of assets	2,455	5,798	34	38	69	99	8,493
Financial liabilities							
Current							
Suppliers and contractors	2,183	2,142	1	1	27		4,354
Derivative financial instruments	357	1,059					1,416
Loans and financing	440	887	19		73		1,419
Related parties	305	1					306
	3,285	4,089	20	1	100		7,495
Non-current							
Derivative financial instruments	1,456	154					1,610
Loans and financing	5,866	19,488	210	2	1,822		27,388
Related parties	109						109
Stockholders Debentures	1,726						1,726
Others	115						115
	9,272	19,642	210	2	1,822		30,948
Total of liabilities	12,557	23,731	230	3	1,922		38,443
			50				

	December 31, 2013						
	R\$	US\$	CAD	AUD	EUR	Others currencies	Total
Financial assets	·						
Current							
Cash and cash equivalents	1,856	3,243	47	92	34	49	5,321
Financial investments	3						3
Derivative financial instruments	161	40					201
Accounts receivable	465	5,107	11	56	1	63	5,703
Related parties	182	79					261
	2,667	8,469	58	148	35	112	11,489
Non-current							
Related parties	9	99					108
Loans and financing agreements							
receivable	82	159					241
Derivative financial instruments		140					140
Others		5					5
	91	403					494
Total of assets	2,758	8,872	58	148	35	112	11,983
Financial liabilities							
Current							
Suppliers and contractors	1,880	1,030	607	118	99	38	3,772
Derivative financial instruments	186	52					238
Loans and financing	890	800		2	83		1,775
Related parties	204	1					205
	3,160	1,883	607	120	182	38	5,990
Non-current							
Derivative financial instruments	1,361	131					1,492
Loans and financing	5,686	19,915		3	2,066		27,670
Related parties		5					5
Stockholders Debentures	1,775						1,775
	8,822	20,051		3	2,066		30,942
Total of liabilities	11,982	21,934	607	123	2,248	38	36,932
			51				

### 23. Fair value estimate

Due to the short-term cycle, it is assumed that the fair value of cash and cash equivalents balances, financial investments, accounts receivable and accounts payable are close to their book values. For the measurement and determination of fair value, the Company uses various methods including market, income or cost approaches, in order to estimate the value that market participants would use when pricing the asset or liability. The financial assets and liabilities recorded at fair value classified and disclosed in accordance with the following levels:

Level 1 unadjusted quoted prices on an active, liquid and visible market for identical assets or liabilities that are accessible at the measurement date;

Level 2 - quoted prices (adjusted or unadjusted) for identical or similar assets or liabilities on active markets; and

Level 3 - assets and liabilities, for which quoted prices, do not exist, or where prices or valuation techniques are supported by little or no market activity, unobservable or illiquid.

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

	Level 2	December 31, 2014 Level 3	Total	December 31, 2013 Level 2
Financial assets				
Current				
Derivatives at fair value through profit or loss	166		166	196
Derivatives designated as hedge				5
	166		166	201
Non-current				
Derivatives at fair value through profit or loss	87		87	140
	87		87	140
Total of assets	253		253	341
Financial liabilities				
Current				
Derivatives at fair value through profit or loss	956		956	199

Derivatives designated as hedge	460		460	39
C C	1,416		1,416	238
Non-current				
Derivatives at fair value through profit or loss	1,609		1,609	1,480
Derivatives designated as hedge	1		1	12
Participative stockholders debentures	1,726		1,726	1,775
Others (minimun return instrument)		115	115	
	3,336	115	3,451	3,267
Total of liabilities	4,752	115	4,867	3,505

### Methods and techniques of evaluation

### i) Derivatives designated or not as hedge

The financial instruments were evaluated by calculating their present value through the use of instrument yield curves at the verification 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 when the 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, besides 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 tip 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.

In the case of swaps tied to the TJLP, the calculation of the fair value considers the TJLP are constant, that is the projections of future cash flow in Brazilian Reais are made on the basis of the last TJLP disclosed.

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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.

### ii) Participative stockholders debentures

Comprise the debentures issued during the privatization process (note 30b), whose fair values are measured based on the market approach. Reference prices are available on the secondary market.

#### iii) Minimum return instrument

Refers to a minimum return instrument held by Brookfield that under certain conditions can generate a disbursement obligation to Vale at the end of the sixth year of the completion of the acquisition of interest in VLI (Note 6b). The Company used internal assumptions in a probability model to calculate the fair value of this instrument.

### b) Fair value measurement compared to book value

For loans allocated to Level 1 market approach to the contracts listed on the secondary market is the evaluation method used to estimate debt fair value. For loans allocated Level 2, the fair value for both fixed-indexed rate debt and floating rate debt is determined by on discounted cash flows using the future values of the LIBOR and the curve of Vale s Bonds (income approach).

The fair values and carrying amounts of non-current loans (net of interest) are shown in the table below:

December 31, 2014

Balance Fair value (ii)

Level 1

Level 2

Financial liabilities				
Loans (long term) (i)	28,370	29,479	15,841	13,638

(i) Net interest of US\$437

(ii) No classification according to level 3.

	December 31, 2013				
	Balance	Fair value (ii)	Level 1	Level 2	
Financial liabilities					
Loans (long term) (i)	28,996	30,005	15,964	14,041	

(i) Net interest of US\$449

(ii) No classification according to level 3.

# 24. Derivative financial instruments

# a) Derivatives effects on balance sheet

	Assets				
	December	31, 2014	December 31, 2013		
	Current	Non-current	Current	Non-current	
Derivatives not designated as hedge					
Foreign exchange and interest rate risk					
CDI & TJLP vs. US\$ fixed and floating rate					
swap	137	11	174		
IPCA swap	7				
Eurobonds swap		41	13	101	
Pre dollar swap	2		5		
	146	52	192	101	
Commodities price risk					
Nickel	20	3	4		
	20	3	4		
Warrants					
SLW options (note 29)		32		39	
		32		39	
Derivatives designated as hedge (cash flow					
hedge)					
Bunker Oil			5		
			5		
Total	166	87	201	140	

	Liabilities				
	December	31, 2014	December	31, 2013	
	Current	Non-current	Current	Non-current	
Derivatives not designated as hedge					
Foreign exchange and interest rate risk					
CDI & TJLP vs. US\$ fixed and floating rate					
swap	442	1,355	185	1,369	
IPCA swap		63			
Eurobonds swap	9	90	1		
Pre dollar swap	30	98	1	110	
	481	1,606	187	1,479	
Commodities price risk					
Nickel	23	3	3		
Bunker oil	452		9		
	475	3	12		
Embedded derivatives					
Gas Oman				1	
				1	
Derivatives designated as hedge (cash flow					
hedge)					
Bunker oil	434		12		
Foreign exchange	26	1	27	12	
	460	1	39	12	
Total	1,416	1,610	238	1,492	

# b) Derivatives effects in the statement of income, cash flow and other comprehensive income

	_	ain or(loss) recial income (exp 2013	0		ed as at December of as at December of the dec	,	Amount of	f gain (loss) rec OCI 2013	ognized in 2012
Derivatives not	2014	2013	2012	2017	2013	2012	2014	2013	2012
designated as hedge									
Foreign exchange and									
interest rate risk									
CDI & TJLP vs.									
US\$ fixed and floating									
rate swap	(437)	(897)	(316)	4	(146)	325			
IPCA swap	(58)								
Eurobonds swap	(160)	91	50	10	(5)	(4)			
Treasury future			9			3			
Pre dollar swap	(28)	(55)	(7)	7	16	19			
	(683)	(861)	(264)	21	(135)	343			
Commodities price risk									
Nickel	9	(2)	(2)	12	(5)	(2)			
Bunker oil	(533)	(72)	1	(90)	(62)	5			

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	(524)	(74)	(1)	(78)	(67)	3			
Warrants									
SLW options (note 29)	(6)	(60)							
	(6)	(60)							
<b>Embedded derivatives</b>									
Gas Oman	1	2	(2)						
	1	2	(2)						
Derivatives designated									
as hedge (cash flow									
hedge)									
Bunker Oil	(81)	(42)	1	(81)	(42)	1	(423)	(10)	(1)
Nickel		13	172		13	172		(13)	(149)
Foreign exchange	(41)	(11)	(26)	(41)	(11)	(26)	8	(28)	16
	(122)	(40)	147	(122)	(40)	147	(415)	(51)	(134)
Total	(1,334)	(1,033)	(120)	(179)	(242)	493	(415)	(51)	(134)

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

	Maturities dates
Currencies/ Interest Rates	July 2023
Gas Oman	April 2016
Nickel	December 2016
Copper	March 2015
Warrants	February 2023
Bunker Oil	December 2015

Table of Contents
Additional information about derivatives financial instruments
Value at risk computation methodology
The value at risk of the positions was measured using a delta-normal parametric approach, which considers that the future distribution of the risk factors - and its correlations - tends to present the same statistic properties verified in the historical data. The value at risk of Vale s derivatives current positions was estimated considering one business day time horizon and a 95% confidence level.
Contracts subjected to margin calls
Vale has contracts subject to margin calls only for part of nickel trades executed by its wholly-owned subsidiary Vale Canada Limited. There was not cash amount deposited for margin call on December 31, 2014.
Initial cost of contracts
The financial derivatives negotiated by Vale and its controlled companies described in this document didn t have initial costs (initial cash flow) associated.
The following tables show as of December 31, 2014, the derivatives positions for Vale and controlled companies with the following information notional amount, fair value (considering counterparty credit risk)(1), gains or losses in the period, value at risk and the fair value for the remaining years of the operations per each group of instruments.
Foreign exchange and interest rates derivative positions
Protection program for the Real denominated debt indexed to CDI

- CDI vs. US\$ fixed rate swap In order to reduce the cash flow volatility, Vale entered into swap transactions to convert the cash flows from debt instruments denominated in BRL linked to CDI to US\$. In those swaps, Vale pays fixed rates in US\$ and receives payments linked to CDI.
- CDI vs. US\$ floating rate swap In order to reduce the cash flow volatility, Vale entered into swap transactions to convert the cash flows from debt instruments denominated in BRL linked to CDI to US\$. In those swaps, Vale pays floating rates in US\$ (Libor London Interbank Offered Rate) and receives payments linked to CDI.

**US\$ Million** 

CDI vs.									
fixed rate	•								
swap									
Payable	US\$	2,284 US\$	2,603	US\$ +	3.82%	(2,327)	(2,799)	(592)	
A 31 4 3									
Adjusted Net for									
credit ris	k					(547)	(411)		(142) (302) (48) (55)
credit 11si	K					(347)	(411)		(142)(302)(40)(33)
CDI vs.									
floating									
rate swap	)								
				Libor					
Payable	US\$	250 US\$	250	+	0.99%	(251)	(254)	(3)	
Adinated									
Adjusted Net for									
credit ris	k					(82)	(64)		(83)
ci cuit i isi						(02)	(04)		(03)

Type of contracts: OTC Contracts

Protected item: Debts linked to BRL

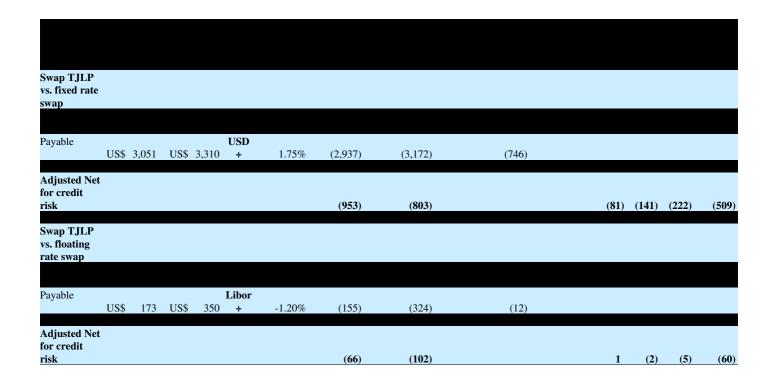
The protected items are the debt instruments linked to BRL once the objective of this protection is to transform the obligations linked to BRL into obligations linked to US\$ so as to achieve a currency offset by matching Vale s receivables (mainly linked to US\$) with Vale s payables.

<sup>(1)</sup> The Adjusted net/total for credit risk considers the adjustments for credit (counterparty) risk calculated for the instruments, in accordance with International Financial Reporting Standard 13 (CPC 46).

#### Protection program for the real denominated debt indexed to TJLP

- TJLP vs. US\$ fixed rate swap In order to reduce the cash flow volatility, Vale entered into swap transactions to convert the cash flows of the loans with Banco Nacional de Desenvolvimento Econômico e Social (BNDES) from TJLP(2) to US\$. In those swaps, Vale pays fixed rates in US\$ and receives payments linked to TJLP.
- TJLP vs. US\$ floating rate swap In order to reduce the cash flow volatility, Vale entered into swap transactions to convert the cash flows of the loans with BNDES from TJLP to US\$. In those swaps, Vale pays floating rates in US\$ and receives payments linked to TJLP.

**US\$ Million** 



Type of contracts: OTC Contracts

Protected item: Debts linked to BRL

The protected items are the debt instruments linked to BRL once the objective of this protection is to transform the obligations linked to BRL into obligations linked to US\$ so as to achieve a currency offset by matching Vale s receivables (mainly linked to US\$) with Vale s payables.

#### Protection program for the Real denominated fixed rate debt

• BRL fixed rate vs. US\$ fixed rate swap: In order to reduce the cash flow volatility, Vale entered into a swap transactions to convert the cash flows from loans rate with Banco Nacional de Desenvolvimento Econômico e Social (BNDES) in BRL linked to fixed rate to US\$ linked to fixed. In those swaps, Vale pays fixed rates in US\$ and receives fixed rates in BRL.

**US\$ Million** 

R\$ fixed									
rate vs.									
<b>US\$</b> fixed									
rate swap									
Payable	US\$ 395 US\$ 446 <b>US\$ -</b>	-1.15%	(366)	(411)	(44)				
Adjusted									
Net for									
credit risk			(127)	(106)		(28)	<b>(70)</b>	<b>(4)</b>	(25)

Type of contracts: OTC Contracts

Protected item: Debts linked to BRL

The protected items are the debt instruments linked to BRL once the objective of this protection is to transform the obligations linked to BRL into obligations linked to US\$ so as to achieve a currency offset by matching Vale s receivables (mainly linked to US\$) with Vale s payables.

<sup>(2)</sup> Due to TJLP derivatives market liquidity constraints, some swap trades were done through CDI equivalency.

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#### Protection program for the Real denominated debt indexed to IPCA

• IPCA vs. US\$ fixed rate swap In order to reduce the cash flow volatility, Vale entered into swap transactions to convert the cash flows from debt instruments denominated in BRL linked to IPCA into US\$ on the debenture contracts issued by Vale in 2014 with a notional amount of BRL 1 billion. In those swaps, Vale pays fixed rates in US\$ and receives payments linked to IPCA.

**US\$ Million** 

													_
TDC 4													
IPCA vs.													
US\$ fixed													
rate swap													
Payable	US\$	434	US\$ +	3.9	08%	(474)							
Adjusted													
Net for													
credit risk						(56)					7	7	6

Type of contracts: OTC Contracts

Protected item: Debts linked to BRL

The protected items are the debt instruments linked to BRL once the objective of this protection is to transform the obligations linked to BRL into obligations linked to US\$ so as to achieve a currency offset by matching Vale s receivables (mainly linked to US\$) with Vale s payables.

#### Protection program for Euro denominated debt

• **EUR fixed rate vs. US\$ fixed rate swap**: In order to hedge the cash flow volatility, Vale entered into a swap transaction to convert the cash flows from debts in Euros linked to fixed rate to US\$ linked to fixed rate. This trade was used to convert the cash flows of part of debts in Euros, each one with a notional amount of 750 million, issued in 2010 and 2012 by Vale. Vale receives fixed rates in

Euros and pays fixed rates in US\$.

**US\$ million** 

Receivable	1,000	1,000 EUR	4.063%	1,431	1,530	652			
Net				(53)	119	9	22	(9) (89)	45
				()					

Type of contracts: OTC Contracts

Protected item: Vale s Debt linked to EUR

The P&L shown in the table above is offset by the hedged items P&L due to EUR/US\$ exchange rate.

#### Foreign exchange hedging program for disbursements in Canadian dollars

• Canadian Dollar Forward In order to reduce the cash flow volatility, Vale entered into forward transactions to mitigate the foreign exchange exposure that arises from the currency mismatch between the revenues denominated in US\$ and the disbursements denominated in Canadian Dollars.

**US**\$ million



Type of contracts: OTC Contracts

Hedged item: part of disbursements in Canadian Dollars

The P&L shown in the table above is offset by the hedged items P&L due to CAD/US\$ exchange rate.

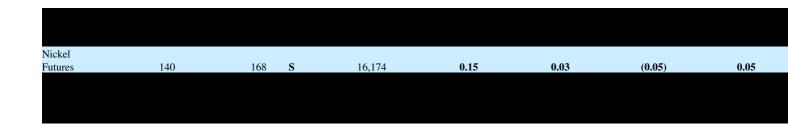
#### Commodity derivative positions

The Company s cash flow is also exposed to several market risks associated to global commodities price volatilities. To offset these volatilities, Vale contracted the following derivatives transactions:

#### Nickel purchase protection program

In order to reduce the cash flow volatility and eliminate the mismatch between the pricing of the purchased nickel (concentrate, cathode, sinter and others) and the pricing of the final or original product sold to the clients, hedging transactions were implemented. The trades are usually implemented by the sale and/or buy of nickel forward or future contracts at LME or over-the-counter operations.

**US\$ million** 



Type of contracts: LME contracts and OTC contracts

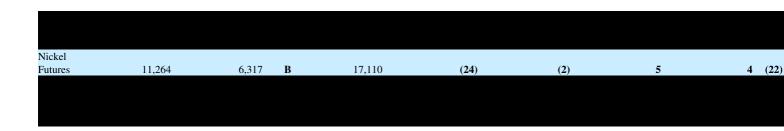
Protected item: part of Vale s revenues linked to nickel price.

The P&L shown in the table above is offset by the protected items P&L due to nickel price.

## Nickel fixed price program

In order to maintain the revenues exposure to nickel price fluctuations, the Company entered into derivatives to convert to floating prices all contracts with clients that required a fixed price. These trades aim to guarantee that the prices of these operations would be the same of the average prices negotiated in LME in the date the product is delivered to the client. It normally involves buying nickel forwards (over-the-counter) or futures (exchange negotiated). Those operations are usually reverted before the maturity in order to match the settlement dates of the commercial contracts in which the prices are fixed.

**US\$ million** 



Type of contracts: LME contracts and OTC contracts

**Protected item:** part of Vale s revenues linked to fixed price sales of nickel.

The P&L shown in the table above is offset by the protected items P&L due to nickel price.

#### Copper scrap purchase protection program

This program was implemented in order to reduce the cash flow volatility due to the quotation period mismatch between the pricing period of copper scrap purchase and the pricing period of final products sale to the clients, as the copper scrap combined with other raw materials or inputs to produce copper for the final clients. This program usually is implemented by the sale of forwards or futures at LME or over-the-counter operations.

**US\$ million** 

Forward	793,665	1,101,029	S	2.96	0.1	(0.1)	0.1	0
		, , , , ,				(3.7)		

**Type of contracts:** OTC contracts

Protected item: of Vale s revenues linked to copper price.

The P&L shown in the table above is offset by the protected items P&L due to copper price.

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#### **Bunker Oil purchase protection program**

In order to reduce the impact of bunker oil price fluctuation on Vale s 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*.

**US**\$ million

Flow	Notional (ton) December 31, 2014 December 31, 2013	Buy/ Sell	Average Strike (US\$/mt)	Fair value December 31, 2014 December 31, 2013	Realized Gain/Loss December 31, 2014	Value at Risk Fair v December 31, 2014
Forward	2,205,000	В	483	(363)	(163)	7
Adjusted total for						
credit risk				(363)		

Type of contracts: OTC Contracts

Protected item: part of Vale s costs linked to bunker oil price

The P&L shown in the table above is offset by the protected items P&L due to bunker oil price.

## Bunker Oil purchase hedging program

In order to reduce the impact of bunker oil price fluctuation on Vale s 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.

**US\$ million** 

Flow		al (ton) December 31, 2013	Buy/ Sell	Average Strike (US\$/mt)		value December 31, 2013	Realized Gain/Loss December 31, 2014	Value at Risk Fair December 31, 2014
Forward Adjusted total for credit	1,950,000	1,590,000	В	509	(371)	(3)	(130)	7
risk					(371)	(3)	)	

**Type of contracts:** OTC contracts

Protected item: part of Vale s costs linked to bunker oil price

The P&L shown in the table above is offset by the protected items P&L due to bunker oil price.

#### Sale of part of future gold production (copper subproduct)

The company has definitive contracts with Silver Wheaton Corp. (SLW), a Canadian company with stocks negotiated in Toronto Stock Exchange and New York Stock Exchange, to sell 25% of gold payable flows produced as a sub product from Salobo copper mine during its life and 70% of gold payable flows produced as a sub product from some nickel mines in Sudbury during 20 years. For this transaction the payment was realized part in cash (US\$ 1.9 billion) and part as 10 million of SLW warrants, where this last part configures an American call option.

**US\$ million** 

Flow	Notional ( December 31, 2014	(quantity) December 31, 2013	Buy/ Sell	Average Strike (US\$/stock)		value December 31, 2013	Realized Gain/Loss December 31, 2014		Fair v
Call	10,000,000	10,000,000	D	(5	22	40		2	
Option Adjusted	10,000,000	10,000,000	В	65	33	40		3	
total for									
credit									
risk					33	40			

#### **Embedded derivative positions**

The Company s cash flow is also exposed to several market risks associated to contracts that contain embedded derivatives or derivative-like features. From Vale s perspective, it may include, but is not limited to, commercial contracts, procurement contracts, rental contracts, bonds, insurance policies and loans. The following embedded derivatives were observed in December 31, 2014:

#### Raw material and intermediate products purchase

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.

**R**\$ million

Flow		al (ton) December 31, 2013	Average Strike Buy/ Sell (US\$/ton)			Realized Gain/Loss December 31, 2014		Fair v
Nickel								
Forwards	4,491	2,111	15,79	1   (0.6)	0.0	12.3		
			$\mathbf{S}$					
Copper							)	
Forwards	6,310	6,277	6,548	8 1.1	0.3	(1.8		
Total				0.5	0.3	10.5	2	

## Gas purchase for pelletizing company in Oman

Vale s subsidiary Vale Oman Pelletizing Company LLC has a natural gas purchase agreement in which there's a clause that defines that a premium can be charged if pellet prices trades above a pre-defined level. This clause is considered as an embedded derivative.

**US\$ million** 

	Notional (volume/mon	ıth)	Average Strike	e Fair	value	Realized Gain/Loss	Value at RiskFair	value
Flow	December 31, 2014 December	er 31, 2013 Br	Buy/ Sell (US\$/ton)	December 31, 2014	<b>December 31, 2013</b>	December 31, 2014	December 31, 2014 2	2015 2
Call								
Options	746,667	746,667	S 179.36	6 (0.2)	(1.5)		0.1	(0.1)

## Market curves

To build the curves used on the pricing of the derivatives, public data from BM&F, Central Bank of Brazil, London Metals Exchange (LME) and proprietary data from Thomson Reuters and Bloomberg were used.

## 1. Commodities

#### Nickel

Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)
SPOT	14,935.00	JUN15	15,208.64	DEC15	15,244.38
JAN15	15,098.18	JUL15	15,222.48	DEC16	15,249.96
FEB15	15,123.94	AUG15	15,229.50	DEC17	15,301.15
MAR15	15,149.77	SEP15	15,232.29	DEC18	15,351.91
APR15	15,170.68	OCT15	15,236.96		
MAY15	15,189.89	NOV15	15,242.50		

## Copper

Maturity	Price (US\$/lb)	Maturity	Price (US\$/lb)	Maturity	Price (US\$/lb)
SPOT	2.83	JUN15	2.85	DEC15	2.83
JAN15	2.88	JUL15	2.84	DEC16	2.82
FEB15	2.87	AUG15	2.84	DEC17	2.81
MAR15	2.86	SEP15	2.84	DEC18	2.80
APR15	2.85	OCT15	2.84		
MAY15	2.85	NOV15	2.84		

#### **Bunker Oil**

Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)	Maturity	Price (US\$/ton)
SPOT	375.91	JUN15	312.66	DEC15	330.69
JAN15	335.42	JUL15	315.27	DEC16	367.54
FEB15	301.60	AUG15	318.25	DEC17	383.28
MAR15	303.94	SEP15	321.32	DEC18	390.28
APR15	306.71	OCT15	324.39		
MAY15	309.91	NOV15	327.46		

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## 2. Rates

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

Maturity		Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
	02/02/15	5.37	04/03/17	3.03	10/01/19	3.49
	03/02/15	3.62	07/03/17	3.09	01/02/20	3.62
	04/01/15	3.05	10/02/17	3.14	04/01/20	3.61
	07/01/15	2.59	01/02/18	3.17	07/01/20	3.67
	10/01/15	2.57	04/02/18	3.22	01/04/21	3.85
	01/04/16	2.69	07/02/18	3.27	07/01/21	3.99
	04/01/16	2.72	10/01/18	3.31	01/03/22	4.02
	07/01/16	2.83	01/02/19	3.37	01/02/23	4.31
	10/03/16	2.93	04/01/19	3.39	01/02/24	4.63
	01/02/17	2.98	07/01/19	3.45	01/02/25	5.03

## **US\$ Interest Rate**

Maturity		Rate (% p.a.)	Maturity	<b>Rate</b> (% p.a.)	Maturity	Rate (% p.a.)
	1M	0.17	6M	0.38	11M	0.44
	2M	0.21	7M	0.40	12M	0.44
	3M	0.26	8M	0.41	2Y	0.89
	4M	0.32	9M	0.42	3Y	1.32
	5M	0.36	10M	0.43	4Y	1.64

## **TJLP**

Maturity		Rate (% p.a.)	Maturity	<b>Rate</b> (% p.a.)	Maturity	<b>Rate</b> (% <b>p.a.</b> )
	02/02/15	5.00	04/03/17	5.00	10/01/19	5.00
	03/02/15	5.00	07/03/17	5.00	01/02/20	5.00
	04/01/15	5.00	10/02/17	5.00	04/01/20	5.00
	07/01/15	5.00	01/02/18	5.00	07/01/20	5.00
	10/01/15	5.00	04/02/18	5.00	01/04/21	5.00
	01/04/16	5.00	07/02/18	5.00	07/01/21	5.00
	04/01/16	5.00	10/01/18	5.00	01/03/22	5.00
	07/01/16	5.00	01/02/19	5.00	01/02/23	5.00
	10/03/16	5.00	04/01/19	5.00	01/02/24	5.00
	01/02/17	5.00	07/01/19	5.00	01/02/25	5.00

## **BRL Interest Rate**

Maturity		<b>Rate</b> (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
	02/02/15	11.80	04/03/17	12.87	10/01/19	12.42
	03/02/15	11.99	07/03/17	12.86	01/02/20	12.44
	04/01/15	12.24	10/02/17	12.84	04/01/20	12.37
	07/01/15	12.62	01/02/18	12.75	07/01/20	12.31
	10/01/15	12.86	04/02/18	12.73	01/04/21	12.30
	01/04/16	12.97	07/02/18	12.71	07/01/21	12.18
	04/01/16	13.01	10/01/18	12.67	01/03/22	12.23
	07/01/16	13.03	01/02/19	12.60	01/02/23	12.23
	10/03/16	12.99	04/01/19	12.54	01/02/24	12.19
	01/02/17	12.90	07/01/19	12.51	01/02/25	12.11

## Implicit Inflation (IPCA)

Maturity		Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
	02/02/15	6.61	04/03/17	6.48	10/01/19	5.91
	03/02/15	6.79	07/03/17	6.41	01/02/20	5.93
	04/01/15	7.03	10/02/17	6.36	04/01/20	5.86
	07/01/15	7.39	01/02/18	6.25	07/01/20	5.81
	10/01/15	7.61	04/02/18	6.21	01/04/21	5.80
	01/04/16	7.72	07/02/18	6.19	07/01/21	5.69
	04/01/16	7.34	10/01/18	6.14	01/03/22	5.74
	07/01/16	7.06	01/02/19	6.08	01/02/23	5.73
	10/03/16	6.82	04/01/19	6.02	01/02/24	5.70
	01/02/17	6.59	07/01/19	5.99	01/02/25	5.62

## **EUR Interest Rate**

Maturity		Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
	1M	0.01	6M	0.13	11M	0.16
	2M	0.03	7M	0.14	12M	0.16
	3M	0.06	8M	0.14	2Y	0.18
	4M	0.09	9M	0.15	3Y	0.22
	5M	0.11	10M	0.15	4Y	0.29

#### **CAD Interest Rate**

Maturity		Rate (% p.a.)	Maturity	Rate (% p.a.)	Maturity	Rate (% p.a.)
	1M	1.30	6M	1.38	11M	1.34
	2M	1.30	7M	1.37	12M	1.34
	3M	1.30	8M	1.36	2Y	1.45
	4M	1.34	9M	1.35	3Y	1.59
	5M	1.36	10M	1.34	4Y	1.73

Currencies - Ending rates					
CAD/US\$	0.8627	US\$/BRL	2.6562	EUR/US\$	1.2100
		61			

#### Sensitivity analysis(3)

The table below comprises the sensitivity analysis for all derivatives outstanding positions as of December 31, 2014 given predefined scenarios for market risk factors behavior. The scenarios were defined as follows:

- Fair Value: the fair value of the financial instruments position as at December 31, 2014;
- Scenario I: Potential change in fair value considering a 25% deterioration of market curves for main underlying market risk factors;
- Scenario II: Potential change in fair value considering a 25% evolution of market curves for main underlying market risk factors;
- Scenario III: Potential change in fair value considering a 50% deterioration of market curves for main underlying market risk factors;
- Scenario IV: Potential change in fair value considering a 50% evolution of market curves for main underlying market risk factors;

#### Sensitivity analysis Summary of the US\$/BRL fluctuation debt, cash investments and derivatives

#### Sensitivity analysis - Summary of the US\$/BRL fluctuation

Amounts in US\$ million

Program	Instrument	Risk	Scenario I	Scenario II	Scenario III	Scenario IV
Funding	Debt denominated in BRL	BRL fluctuation				
Funding	Non hedged debt denominated in US\$	BRL fluctuation	5,935	(5,935)	11.870	(11,870)
Cash Investments	Cash denominated in BRL	BRL fluctuation	,	( )	ĺ	` ' '
Cash Investments	Cash denominated in US\$	BRL fluctuation	2	(2)	3	(3)
Derivatives	Consolidated derivatives portfolio	BRL fluctuation	(1,628)	1,628	(3,255)	3,255
Net result			4,309	(4,309)	8,618	(8,618)

#### Sensitivity analysis Consolidated derivatives portfolio

Sensitivity analysis - Foreign Exchange and Interest Rate Derivative Positions

Amounts in US\$ million

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Program	Instrument	Main Risks	Fair Value	Scenario I	Scenario II	Scenario III	Scenario IV
Protection program for the Real denominated	CDI vs. US\$ fixed	BRL fluctuation USD interest rate inside Brazil variation	(547)	(582) (27)	582 26	(1,163) (55)	1,163 51
debt indexed to CDI	rate swap  CDI vs.	Brazilian interest rate fluctuation USD Libor variation BRL fluctuation	(317)	(8) (0.4) (63)	7 0.4 63	(16) (0.8) (126)	14 0.7 126
	US\$ floating rate swap	Brazilian interest rate fluctuation USD Libor variation	(83)	(0.01) (0.01)	0.01 0.01	(0.02) (0.02)	0.02 0.02
	Protected Items - Real denominated debt	BRL fluctuation	n.a.				
		BRL fluctuation		(735)	735	(1,469)	1,469
Protection program for the Real denominated	TJLP vs. US\$ fixed rate swap	USD interest rate inside Brazil variation	(953)	(58)	55	(119)	107
debt indexed to TJLP		Brazilian interest rate fluctuation TJLP interest rate fluctuation BRL fluctuation		148 (66) (39)	(131) 64 39	317 (132) (78)	(247) 126 78
	TJLP vs. US\$ floating rate	USD interest rate inside Brazil variation	(66)	(5)	4	(10)	8
	swap	Brazilian interest rate fluctuation TJLP interest rate fluctuation		9 (4)	(8) 4	19 (8)	(14) 8
	Protected Items -	USD Libor variation		3	(3)	5	(5)
	Real denominated debt	BRL fluctuation	n.a.				
		BRL fluctuation		(91)	91	(183)	183
Protection program for the Real denominated fixed rate debt	BRL fixed rate vs. US\$ fixed rate swap	USD interest rate inside Brazil variation	(127)	(5)	4	(9)	8
nxed rate debt	Protected Items - Real denominated	Brazilian interest rate fluctuation  BRL fluctuation		11	(10)	24	(20)
	debt	DRL fluctuation	n.a.				
		DDI CL. C.		(110)	110	(227)	227
Protection program for	IPCA vs. US\$ fixed	BRL fluctuation USD interest rate inside Brazil variation	(T.O.)	(119) (11)	119 10	(237) (23)	237 19
the Real denominated debt indexed to IPCA	rate swap	Brazilian interest rate fluctuation IPCA index fluctuation	(56)	54 (24)	(46) 26	118 (48)	(85) 53
	Protected Items -	USD Libor variation  BRL fluctuation		(3)	3	(7)	6
	Real denominated debt	DRL Huctuation	n.a.				
Protection Program for	TV TO 01	EUR fluctuation		(358)	358	(715)	715
the Euro denominated debt	EUR fixed rate vs. US\$ fixed rate swap	EUR Libor variation USD Libor variation	(58)	9 (27)	(9) 25	18 (56)	(17) 48
deor	Protected Items - Euro denominated	EUR fluctuation		(21)	23		40
	debt		n.a.	358	(358)	715	(715)
Foreign Exchange		CAD fluctuation		(56)	56	(112)	112
hedging program for disbursements in Canadian dollars	CAD Forward	CAD Libor variation USD Libor variation	(27)	0 (0.1)	(0) 0.1	(0.2)	(1) 0.2
(CAD)	Protected Items - Disbursement in	CAD fluctuation					
	Canadian dollars		n.a.	56	(56)	112	(112)

<sup>(3)</sup> The deterioration scenario of BRL fluctuation on the tables of this section means the depreciation of BRL against the USD. The same is applicable for the other currencies fluctuations as risk factors. Specifically on Sensitivity analysis - cash investments in other currencies table, the depreciation of each currency is risk factor against another currencies in general, not only USD.

## **Sensitivity analysis - Commodity Derivative Positions**

Amounts in US\$ million

Program	Instrument	Main Risks	Fair Value	Scenario I	Scenario II	Scenario III	Scenario IV
Nickel purchase protection program	Pruchase / sale of nickel future/forward	Nickel price fluctuation	0.2	0.5	(0.5)	1.1	(1.1)
	contracts Protected Item: Part of Vale s	CAD fluctuation		0.04	(0.04)	0.07	(0.07)
	revenues linked to Nickel price	Nickel price fluctuation	n.a.	(0.5)	0.5	(1.1)	1.1
Nickel fixed price	Purchase of nickel	Nickel price fluctuation	(2.1)	(43)	43	(85)	85
program	future/forward contracts Protected Item:	CAD fluctuation	(24)	(6)	6	(12)	12
	Part of Vale s nickel revenues from sales with fixed prices	Nickel price fluctuation	n.a.	43	(43)	85	(85)
Copper Scrap Purchase	Sale of copper	Copper price fluctuation		0.6	(0.6)	1.1	(1.1)
Protection Program	future/forward contracts Protected Item:	CAD fluctuation	0.1	0.03	(0.03)	0.06	(0.06)
	Part of Vale s revenues linked to Copper price	Copper price fluctuation	n.a.	(0.6)	0.6	(1.1)	1.1
Bunker Oil Protection	Bunker Oil forward	Bunker Oil price fluctuation	(363)	(175)	175	(350)	350
Program	Protected Item: part of Vale s costs linked to Bunker Oil price	Bunker Oil price fluctuation	n.a.	175	(175)	350	(350)
Bunker Oil Hedge Program	Bunker Oil forward Protected Item: part	Bunker Oil price fluctuation	(371)	(155)	155	(310)	310
	of Vale s costs linked to Bunker Oil price	Bunker Oil price fluctuation	n.a.	155	(155)	310	(310)
Sell of part of future gold production (subproduct) from Vale	10 million of SLW warrants	SLW stock price fluctuation Libor USD fluctuation	33	(15) (1)	18 1	(26) (3)	40 3
	Sell of part of future gold production (subproduct) from Vale	SLW stock price fluctuation	n.a.	15	(18)	26	(40)

Sensitivity analysis - Embedded Derivative Positions

Amounts in US\$ million

Program	Instrument	Main Risks	Fair Value	Scenario I	Scenario II	Scenario III	Scenario IV
Embedded derivatives	Embedded	Nickel price fluctuation		18	(18)	36	(36)
- Raw material purchase (Nickel)	derivatives - Raw material purchase	CAD fluctuation	(0.6)	(0.1)	0.1	(0.3)	0.3
Embedded derivatives - Raw material	Embedded derivatives - Raw	Copper price fluctuation	1.1	10	(10)	20	(20)
purchase (Copper)	material purchase	CAD fluctuation	1.1	0.3	(0.3)	0.6	(0.6)
Embedded derivatives - Gas purchase for	Embedded derivatives - Gas	Pellet price fluctuation	(0.2)	0.04	(0.20)	0.05	(0.75)
Pelletizing Company	purchase		(0.2)	0.04	(0.20)	0.05	(0.75)

#### Sensitivity analysis - cash investments

The cash investments are subjected to foreign exchange risk when the investment currency is other than the functional currency of the investor company.

#### Sensitivity analysis - Cash Investments (Other currencies)

Amounts in US\$ million

Program	Instrument	Risk	Scenario I	Scenario II	Scenario III	Scenario IV
Cash Investments	Cash denominated in EUR	EUR	(9)	9	(17)	17
Cash Investments	Cash denominated in CAD	CAD	(0.02)	0.02	(0.04)	0.04
Cash Investments	Cash denominated in GBP	GBP	(4)	4	(7)	7
Cash Investments	Cash denominated in AUD	AUD	(1)	1	(1)	1
Cash Investments	Cash denominated in Other Currencies*	Others	(42)	42	(84)	84

<sup>(\*)</sup> Includes investments in other currencies and investments in USD as the functional currency of the investor is not USD or BRL.

#### Financial counterparties ratings

Derivative transactions and cash investments are held with financial institutions whose exposure limits are periodically reviewed and approved by the delegated authority. The financial institutions credit risk tracking is performed making use of a methodology which considers, among other information, published ratings provided by international rating agencies. The table below presents the ratings in foreign currency published by Moody s and S&P agencies for the financial institutions that the Company has outstanding trades as of December 31, 2014.

Counterparties Long Term Ratings	Moody s	S&P
ANZ Australia and New Zealand Banking	Aa2	AA-
Banco Bradesco	Baa2	BBB-
Banco de Credito del Peru	Baa1	BBB+
Banco do Brasil	Baa2	BBB-
Banco do Nordeste	Baa3	BBB-
Banco Safra	Baa2	BBB-
Banco Santander	Baa2	BBB-
Banco Votorantim	Baa2	BB+
Bank of America	Baa2	A-
Bank of Nova Scotia	Aa2	A+
Banpara	Ba3	BB
Barclays	A3	A-
BBVA	Baa2	BBB
BNP Paribas	A1	A+
BTG Pactual	Baa3	BB+ *
Caixa Economica Federal	Baa2	BBB-
Citigroup	Baa2	A-
Credit Agricole	A2	A
Deutsche Bank	A3	A
Goldman Sachs	Baa1	A-
HSBC	Aa3	A+
Intesa Sanpaolo Spa	Baa2	BBB-
Itau Unibanco	Baa2	BBB-
JP Morgan Chase & Co	A3	A
Morgan Stanley	Baa2	A-
National Australia Bank NAB	Aa2	AA-
Royal Bank of Canada	Aa3	AA-
Societe Generale	A2	A
Standard Bank Group	Baa3	
Standard Chartered	A2	A

## 25. Stockholders equity

## a) Capital

Stockholders equity is represented by common shares (ON) and preferred non-redeemable shares (PNA) without par value. Preferred shares have the same rights as common shares, with the exception of voting for election of members of the Board of Directors. The Board of Directors may, regardless of changes to bylaws, issue new shares (authorized capital), including the capitalization of profits and reserves to the extent authorized.

In May 2014 the Stockholders approved at the Extraordinary General Shareholders Meeting, the proposed increase in capital without issuance of shares, in the total amount of US\$1,036, by the capitalization of profit reserves.

On December 31, 2014, the capital was US\$61,614 corresponding to 5,244,316,120 shares without par value.

		December 31, 2014	
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	759,360,284	602,848,377	1,362,208,661
FMP - FGTS	81,586,650		81,586,650
PIBB - BNDES	1,351,264	2,184,794	3,536,058
BNDESPar	206,378,882	66,185,272	272,564,154
Foreign institutional investors in local market	273,535,660	605,136,074	878,671,734
Institutional investors	107,043,617	245,750,298	352,793,915
Retail investors in Brazil	39,961,598	425,277,099	465,238,697
Treasury stock	31,535,402	59,405,792	90,941,194
Total	3,217,188,402	2,027,127,718	5,244,316,120

#### b) Profit reserves

The amount of profit reserves are distributed as follow:

	Investments reserve	Legal reserve	Tax incentive reserve	Total of profit reserves
Balance as of December 31, 2012	33,248	3,953	1,188	38,389
Realization of reserves	(3,936)	0,700	1,100	(3,936)
Allocation of income	` '	3	11	14
Translation adjustment	(4,244)	(505)	(152)	(4,901)
Balance as of December 31, 2013	25,068	3,451	1,047	29,566
Capitalization of reserves	(13)		(1,023)	(1,036)
Cancellation of treasury stock	(3,000)			(3,000)
Realization of reserves	(3,387)			(3,387)
Allocation of income		18	61	79
Translation adjustment	(1,874)	(408)	45	(2,237)
Balance as of December 31, 2014	16,794	3,061	130	19,985

**Investment reserve** - aims to ensure the maintenance and development of activities that comprise the Company s operations in an amount not exceeding 50% of distributable annual net income, limited to the total capital.

**Legal reserve** - is a requirement for all Brazilian Public Companies and represents the appropriation of 5% of annual net income based on Brazilian law, up to 20% of the capital.

**Tax incentive reserve** - results from the option to designate a portion of the income tax for investments in projects approved by the Brazilian Government as well as tax incentives (note 20).

#### c) Treasury stocks

In May 2014, the Stockholders approved, at the Extraordinary General Shareholders Meeting, the proposed cancellation of 39,536,080 common shares and 81,451,900 preferred shares class A issued by Vale and held in treasury, arising from the buy-back program approved in June 2011.

On December 31, 2014, there were 90,941,194 treasury stocks, in the total amount of US\$1,477, as follows:

		Classes of Shares				
	Preferred	Common	Total			
Balance on December 31, 2013	140,857,692	71,071,482	211,929,174			
Cancellation	(81,451,900)	(39,536,080)	(120,987,980)			
Balance on December 31, 2014	59,405,792	31,535,402	90,941,194			

## d) Unrealized fair value gain (losses)

	D.4*		Available-for-sale		
	Retirement benefit obligations	Cash flow hedge	financial instruments	Conversion shares	Total gain (losses)
Balance as of December 31, 2012	(1,378)	(12)	(1)	(653)	(2,044)
Other comprehensive income	630	(51)	(1)		578
Translation adjustment	63	17		184	264
Balance as of December 31, 2013	(685)	(46)	(2)	(469)	(1,202)
Other comprehensive income	(192)	(416)			(608)
Translation adjustment	32	9		56	97
Balance as of December 31, 2014	(845)	(453)	(2)	(413)	(1,713)

## e) Basic and diluted earnings per share

Basic and diluted earnings per share were calculated as follows:

		Year ended as at December 31,	
	2014	2013	2012
Net income from continuing operations attributable to the Company s			
stockholders	657	586	5,522
Basic and diluted earnings per share:			
Income available to preferred stockholders	251	224	2,091
Income available to common stockholders	406	362	3,431
Total	657	586	5,522
Weighted average number of shares outstanding (thousands of shares) - preferred			
shares	1,967,722	1,967,722	1,933,491
Weighted average number of shares outstanding (thousands of shares) - common			
shares	3,185,653	3,185,653	3,172,179
Total	5,153,375	5,153,375	5,105,670
Basic and diluted earnings per share from continuing operations			
Preferred share	0.13	0.11	1.08
Common share	0.13	0.11	1.08
		Year ended as at Dece	mhor 31
		2013	2012
Loss from discontinuing operations attributable to the Company s stockholders	5	(2)	(68)
		,	
Basic and diluted earnings per share:			
Loss available to preferred stockholders		(1)	(26)
Loss available to common stockholders		(1)	(42)
Total		(2)	(68)
		• •	· ·
Weighted average number of shares outstanding (thousands of shares) - preferred shares	ires	1,967,722	1,933,491
Weighted average number of shares outstanding (thousands of shares) - common sha		3,185,653	3,172,179
Total		5,153,375	5,105,670
		, , , , , , , , , , , , , , , , , , ,	
Basic and diluted earnings per share from discontinuing operations			
Preferred share			(0.02)
Common share			(0.02)

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	2014	2013	2012
Net income attributable to the Company s stockholders	657	584	5,454
Basic and diluted earnings per share:			
Income available to preferred stockholders	251	223	2,065
Income available to common stockholders	406	361	3,389
Total	657	584	5,454
Weighted average number of shares outstanding (thousands of shares)			
- preferred shares	1,967,722	1,967,722	1,933,491
Weighted average number of shares outstanding (thousands of shares)			
- common shares	3,185,653	3,185,653	3,172,179
Total	5,153,375	5,153,375	5,105,670
Basic and diluted earnings per share			
Preferred share	0.13	0.11	1.06
Common share	0.13	0.11	1.06
6	6		

## f) Remuneration of stockholders

Vale s by-laws determine the minimum remuneration to stockholders of 25% of net income, after adjustments from Brazil s legal requirements. The minimum remuneration includes the rights of stockholders Class A of preferred shares which provides priority to receive of 3% of the equity or 6% on the portion of capital formed by these classes of shares, whichever higher.

The proposal distribution of net income and stockholders remuneration were calculated in R\$, below is the equivalent amounts in US\$:

	2014
Net income	657
Legal reserve	(18)
Tax incentive reserve	(61)
Adjusted net income	578
Realization of reserves	3,387
Cumulative translation adjustments	235
	4,200
Remuneration:	
Mandatory minimum (includes the rights of the preferred shares)	675
Additional remuneration	3,525
	4,200
Remuneration nature:	
Interest on capital	3,483
Dividends	717
	4,200
Total remuneration per share	0.814999890

The amounts paid to stockholders, by nature of remuneration, are as follows:

	Remuneration attributed to stockholders								
		Interest on Dividends capital Total							
	Dividends	capital	Total	common share					
Amounts paid in 2012									
First installment - April		3,000	3,000	0.588547644					
Second installment - October	1,670	1,330	3,000	0.582142779					
	1,670	4,330	6,000						
Amounts paid in 2013									
First installment - April	400	1,850	2,250	0.436607084					

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	• • •	4.070	2.270	0.40<
Second installment - October	287	1,963	2,250	0.436607084
	687	3,813	4,500	
Amounts paid in 2014				
First installment - April		2,100	2,100	0.407499945
Second installment - October	717	1,383	2,100	0.407499945
	717	3,483	4,200	
	67			

## 26. Information by business segment and information 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) Investment, intangible and property, plant and equipment by geographic area

			Property, plant &				Property, plant &	
	Investments	Intangible	equipment	Total	Investments	Intangible	equipment	Total
Brazil	3,411	4,380	40,971	48,762	2,825	4,835	45,506	53,166
Canada	4	2,352	17,478	19,834	3	1,940	18,367	20,310
America, except Brazil and								
Canada	184		651	651	181		445	626
Europa			630	814			924	924
Asia	340		7,043	7,383	347		5,117	5,442
Australia		88	776	864		96	908	1,004
New Caledonia			4,140	4,140			3,814	3,814
Mozambique			5,376	5,376			3,602	3,602
Oman			1,057	1,057			1,099	1,099
Rest of world	194			194	228		1,883	2,133
Total	4,133	6,820	78,122	89,075	3,584	6,871	81,665	92,120

#### b) Results by segment and revenues by geographic area

	Year ended as at December 31, 2014									
	Bulk Materials									
	Ferrous									
	minerals	Coal	Base Metals	Fertilizers	Others	Total				
Results										
Net operating revenue	25,697	739	7,692	2,415	996	37,539				
Cost and expenses	(14,902)	(1,436)	(5,171)	(2,137)	(1,108)	(24,754)				
Impairment of non-current										
assets	(1,135)	(343)	1,379	(1,053)		(1,152)				
Loss on measurement or sales of										
non-current assets			(167)			(167)				
Depreciation, depletion and										
amortization	(1,930)	(120)	(1,791)	(419)	(28)	(4,288)				

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Operating income (loss)	7,730	(1,160)	1,942	(1,194)	(140)	7,178
Financial results, net	(6,003)	194	(198)	(51)	(11)	(6,069)
Results on sale or disposal of investments from associates and						
joint ventures					(30)	(30)
Equity results from associates					(50)	(50)
and joint ventures	617	32	(35)		(109)	505
Income taxes	(1,451)	81	(145)	403	(88)	(1,200)
Impairment of investments					(31)	(31)
Net income (loss)	893	(853)	1,564	(842)	(409)	353
Loss attributable to						
noncontrolling interests	59	(49)	(284)	4	(34)	(304)
Income (loss) attributable to						
the company s stockholders	834	(804)	1,848	(846)	(375)	657
Calca alassifiad bar assausabia						
Sales classified by geographic area:						
America, except United States						
and Brazil	652	3	1,373	39	21	2,088
United States of America	24	3	1,099	3,	245	1,368
Europe	3,894	115	2,586	89	13	6,697
Middle East/Africa/Oceania	1,608	110	149	3		1,870
Japan	2,566	192	863		6	3,627
China	11,939	76	642			12,657
Asia, except Japan and China	2,189	235	828	53		3,305
Brazil	2,825	8	152	2,231	711	5,927
Net operating revenue	25,697	739	7,692	2,415	996	37,539

				Year ended as at	December 31,	2013	Discontinued	
	Bulk Materials Ferrous minerals Coal		Base metals	Fertilizers	Others	Total of continued operations	operations (General Cargo)	Total
Results								
Net operating revenue	34,792	1,010	7,286	2,814	865	46,767	1,283	48,050
Cost and expenses	(13,964)	(1,505)	(5,647)	(2,868)	(1,057)	(25,041)	(1,164)	(26,205)
Impairments of								
non-current assets	(182)			(2,116)		(2,298)		(2,298)
Loss on measurement or								
sales of non-current assets			(215)			(215)	(209)	(424)
Depreciation, depletion								
and amortization	(1,746)	(173)	(1,766)	(431)	(34)	(4,150)	(158)	(4,308)
Operating income (loss)	18,900	(668)	(342)	(2,601)	(226)	15,063	(248)	14,815
Financial results, net	(8,559)	44	(50)	(18)	251	(8,332)	(2)	(8,334)
Results on sale or disposal								
of investments from joint								
ventures and associates				27	14	41		41
Equity results from								
associates and joint								
ventures	627	28	(26)		(160)	469		469
Income taxes	(7,200)	294	62	56	(45)	(6,833)	248	(6,585)
Net income (loss)	3,768	(302)	(356)	(2,536)	(166)	408	(2)	406
Net income (loss)								
attributable to								
noncontrolling interests	(42)	(35)	(58)	13	(56)	(178)		(178)
Income (loss)								
attributable to the								
company s stockholders	3,810	(267)	(298)	(2,549)	(110)	586	(2)	584
Sales classified by								
geographic area:								
America, except United								
States and Brazil	733		1,045	60	10	1,848		1,848
United States of America	30		1,070		212	1,312		1,312
Europe	5,917	79	2,647	120		8,763		8,763
Middle								
East/Africa/Oceania	1,844	137	93	17	7	2,098		2,098
Japan	3,113	304	618			4,035		4,035
China	17,913	157	851			18,921		18,921
Asia, except Japan and								
China	2,340	316	883	61		3,600		3,600
Brazil	2,902	17	79	2,556	636	6,190	1,283	7,473
Net operating revenue	34,792	1,010	7,286	2,814	865	46,767	1,283	48,050

#### Year ended as at December 31, 2012

	Bulk Mat Ferrous	erials			,	Total of continued	Discontinued operations (General	
	minerals	Coal	Base Metals	Fertilizers	Others	operations	Cargo)	Total
Results								
Net operating revenue	34,280	1,092	7,131	3,570	480	46,553	1,141	47,694
Cost and expenses	(16,439)	(1,541)	(6,529)	(2,940)	(1,011)	(28,460)	(1,058)	(29,518)
Impairments of								
non-current assets		(1,029)	(2,848)		(146)	(4,023)		(4,023)
Loss on measurement or								
sales of non-current								
assets	(22)	(355)		(129)		(506)		(506)
Depreciation, depletion								
and amortization	(1,806)	(198)	(1,647)	(463)	(41)	(4,155)	(133)	(4,288)
Operating income (loss)	16,013	(2,031)	(3,893)	38	(718)	9,409	(50)	9,359
Financial results, net	(4,327)	59	278	(46)	14	(4,022)	(1)	(4,023)
Equity results from								
associates and joint								
ventures	850	43	(5)		(243)	645		645
Income taxes	(823)	485	38	1,206	268	1,174	(17)	1,157
Impairments of								
investments			(975)		(966)	(1,941)		(1,941)
Net income (loss)	11,713	(1,444)	(4,557)	1,198	(1,645)	5,265	(68)	5,197
Net income (loss)								
attributable to								
noncontrolling interests	(55)	(10)	(207)	54	(39)	(257)		(257)
Income (loss)								
attributable to the								
company s stockholders	11,768	(1,434)	(4,350)	1,144	(1,606)	5,522	(68)	5,454
Sales classified by								
geographic area:								
America, except United								
States and Brazil	715	36	996	60	16	1,823		1,823
United States of America	108		1,137	53	36	1,334		1,334
Europe	5,617	217	2,194	148	23	8,199		8,199
Middle								
East/Africa/Oceania	1,460	90	96	7		1,653		1,653
Japan	3,886	316	722		7	4,931		4,931
China	16,621	122	895			17,638		17,638
Asia, except Japan and								
China	2,662	285	1,009	91	2	4,049		4,049
Brazil	3,211	26	82	3,211	396	6,926	1,141	8,067
Net operating revenue	34,280	1,092	7,131	3,570	480	46,553	1,141	47,694

#### Year ended as at December 31, 2014

	Net operating revenues		Expenses	Research and evaluation	Pre operating and stoppage operation	Margin before depreciation (iv)	Depreciation, depletion and amortization	Loss on measurement or sales of non-current assets		Operating income (loss)	Property plant and equipment and intangible
Bulk											
Material											
Ferrous minerals											
Iron ore	19,301								(1,135)		
Pellets	5,263	(2,705)	) (21)		(38)	2,499	(274)	1		2,225	5 1,6
Ferroalloys and	202	(261)	(12)		(22)	0.5	(22)			60	
manganese	392	(261)	(13)		(23)	95	(32)			63	3 20
Others ferrous products and											
services	741		,	(10)		169	. ,	·		59	
	25,697	(13,063)	(1,289)	(329)	(221)	10,795	(1,930)		(1,135)	7,730	37,4
Coal	739	(1,071)	(309)	(18)	(38)	(697)	(120)	i	(343)	(1,160)	<b>4,4</b> 2
Base Metals											
Nickel and other											
products (i)				(138)					7) 1,379		
Copper (ii)	1,451	. ,	, ,				( ' )			367	- , -
	7,692	(4,587)	89	(143)	(530)	2,521	(1,791)	(167)	7) 1,379	1,942	2 33,2
Fertilizers			(1.5)	(10)	(22)	10.5	(2.5)			151	
Potash	154	. ,								(61)	
Phosphates	1,820						. ,		(1,053)		
Nitrogen	349	(238)	) (10)	(7)	) (7)	87	(48)	1		39	,
Others fertilizers											
products	92		(0.5)		(0.5)	92			11.050	92	
	2,415	(1,885)	(95)	(72)	(85)	278	(419)		(1,053)	(1,194)	4) 5,6
Others	996	(601)	(329)	(172)	) (6)	(112)	) (28)	)		(140)	)) <b>4,</b> 0
Total		(21,207)							7) (1,152)		

<sup>(</sup>i) Includes nickel by-products and by-products (copper, precious metal, cobalt and others).

<sup>(</sup>ii) Includes copper concentrate and does not include the cooper by-product of nickel.

- (iii) Includes only addictions realized with cash and cash equivalents.
- (iv) The Company adds US\$568 of dividends received from joint ventures and associates to margin before depreciation, totaling US\$13,353 for performance management.

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## Year ended as at December 31, 2013

	Net operating revenues		Expenses	Research and evaluation	Pre operating and stoppage operation	Margin before depreciation (iv)	Depreciation, depletion and amortization	Loss on measurement or sales of non-current assets		Operating income (loss)	Pr pla equ
Bulk			-						·		
Material											
Ferrous											
minerals											
Iron ore	27,844	. , ,	. , ,	, ,	` /		(1,393)			15,565	
Pellets	6,000	(2,299)	(110)	(12)	(130)	3,449	(184)		(182)	3,083	
Ferroalloys and											
manganese	523	(317)	(34)		(13)	159	(29)			130	
Others ferrous		, ,	, ,		, ,		,				
products and											
services	425	( )				262	(140)			122	
	34,792	(11,849)	(1,402)	(326)	(387)	20,828	(1,746)		(182)	18,900	
G 1	1.010	(4.4.45)	(0.60)	(40)	(4=)	(40 E)	(4.50)			(((0)	
Coal	1,010	(1,147)	(262)	(49)	(47)	(495)	(173)			(668)	1
Base Metals											
Nickel and											
other											
products (i)	5,839	(3,657)	(123)	(173)	(753)	1,133	(1,592)			(459)	١
Copper (ii)	1.447	( / /					(174)		)	(127)	
Others	1,117	(1,000)	244	(13)	(10)	244	(171)	(213	,	244	
Guicis	7,286	(4,665)		(218)	(763)		(1,766)	(215	)	(342)	
Fertilizers	7,200	(1,000)	(-)	(=10)	(.00)	2,000	(1,700)	(=10	,	(6 12)	
Potash	201	(127)	(29)	(16)	(394)	(365)	(44)		(2,116)	(2,525)	)
Phosphates	2,065	` /	\ /	( /	\ /	\ /	(312)		( , - ,	(133)	
Nitrogen	469						(75)			(20)	
Others		` `	Ì	,			, í				
fertilizers											
products	79			(2)		77				77	
	2,814	(2,190)	(197)	(53)	(428)	(54)	(431)		(2,116)	(2,601)	)
Others	865	(669)	(233)	(155)		(192)	(34)			(226)	)
Total of											
continued											
operations	46,767	(20,520)	(2,095)	(801)	(1,625)	21,726	(4,150)	(215	(2,298)	15,063	
Discontinued											
operations											
(General											
Cargo)	1,283	(1,078)	(72)	(14)		119	(158)	(209	)	(248)	)
Total	48,050	(21,598)	(2,167)	(815)	(1,625)	21,845	(4,308)	(424	(2,298)	14,815	

- (i) Includes nickel by-products and by-products (copper, precious metal, cobalt and others).
- (ii) Includes copper concentrate and does not include the cooper by-product of nickel.
- (iii) Includes only addictions realized with cash and cash equivalents.
- (iv) The Company adds US\$834 of dividends received from joint ventures and associates to margin before depreciation of continued operations, totaling US\$22,560 for performance management.

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## Year ended as at December 31, 2012

	Net operating revenues	Cost	Expenses	Research and evaluation	Pre operating and stoppage operation	Margin before depreciation (iv)	Depreciation, depletion and amortization	Loss on measurement or sales of non-current assets	Impairment	Operating income (loss)	Pr pla equ
Bulk Material					•	• ` ` ′				Ý	
Ferrous											
minerals											
Iron ore	26,691	(9,810)	(2,336)	(616)	(196)	13,733	(1,406)			12,327	
Pellets	6,560	(2,644)			(125)	3,791	(235)			3,556	
Ferroalloys and											
manganese	543	(352)	(1)	)		190	(45)	(22)	)	123	
Others ferrous products and											
services	486	(304)	(55)	1		127	(120)			7	
services		(13,110)	. ,		(321)	17,841	(1,806)	(22)		16,013	
	0 1,200	(10)110)	(=,0>=)	(010)	(621)	17,011	(1,000)	(==)		10,010	
Coal	1,092	(1,046)	(352)	(115)	(28)	(449)	(198)	(355)	(1,029)	(2,031	)
<b>Base Metals</b>											
Nickel and											
other	5.055	(2.025)	(511)	(200)	(501)	520	(1.500)		(2.040)	(2.017	
products (i)	5,975					539	(1,508)		(2,848)		
Copper (ii)	1,156					63	(139)		(2.040)	(76	
Fertilizers	7,131	(4,689)	(551)	(395)	(894)	602	(1,647)		(2,848)	(3,893)	)
Potash	290	(158)	(13)	(73)		46	(23)			23	
Phosphates	2,507					431	(331)			100	
Nitrogen	699	(1,790) $(575)$			(93)	79	(109)	(129)	•	(159	
Others	099	(373)	(43)			19	(109)	(129)	,	(139	,
fertilizers											
products	74					74				74	
products	3,570		(215)	(109)	(93)		(463)	(129)	•	38	
Others	480	(363)				(531)	. ,	(==>)	(146)		
Total of continued		(000)	(120)	(== 1)		(404)	(1-)		(= 10)	(1 = 0)	
operations	46,553	(21,731)	(3,928)	(1,465)	(1,336)	18,093	(4,155)	(506)	(4,023)	9,409	
Discontinued operations (General											
Cargo)	1,141	(930)	( )			83	(133)			(50	
Total	47,694	(22,661)	(4,043)	(1,478)	(1,336)	18,176	(4,288)	(506)	(4,023)	9,359	

- (i) Includes nickel by-products and by-products (copper, precious metal, cobalt and others).
- (ii) Includes copper concentrate and does not include the cooper by-product of nickel.
- (iii) Includes only addictions realized with cash and cash equivalents.
- (iv) The Company adds US\$460 of dividends received from joint ventures and associates to margin before depreciation of continued operations, totaling US\$18,553 for performance management.

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# 27. Cost of goods sold and services rendered, and selling and administrative expenses and other operational expenses (income), net, by nature

#### a) Costs of goods sold and services rendered

		Year ended as at December 3:	1,
	2014	2013	2012
Personnel	3,051	3,265	3,413
Material and Services	5,389	6,128	6,990
Fuel oil and gas	1,639	1,804	1,947
Maintenance	2,434	1,868	1,878
Energy	602	663	863
Acquisition of products	1,615	1,412	1,367
Depreciation and depletion	3,856	3,724	3,659
Freight	3,592	3,189	2,801
Others	2,886	2,192	2,472
Total	25,064	24,245	25,390

## b) Selling and administrative expenses

		Year ended as at Decembe	r 31,
	2014	2013	2012
Personnel	436	495	782
Services (consulting, infrastructure and others)	196	331	480
Advertising and publicity	40	44	101
Depreciation	223	192	236
Travel expenses	24	19	63
Taxes and rents	28	26	27
Selling	80	85	274
Others	72	110	209
Total	1.099	1,302	2,172

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

	2014	2013	2012
Provision for litigation	174	(88)	704
Provision for loss with VAT credits (ICMS)	117	120	238
VAT - settlement program		166	
PPR	130	215	414
Vale do Rio Doce Foundation	19	24	37
Provision for disposal of materials/inventories	187	171	128
Tax incentives not used	26	49	
Results on sale or disposal of property, plant and equipment and			
intangible	91	98	40
Goldstream transaction		(244)	
Other	313	473	435
Total			