

Consolidated Interim Financial Statements

March 31, 2024



Contents

Report of Independent Registered Public Accounting Firm	
Consolidated Interim Income Statement	4
Consolidated Interim Statement of Comprehensive Income	5
Consolidated Interim Statement of Cash Flows	6
Consolidated Interim Statement of Financial Position	7
Consolidated Interim Statement of Changes in Equity	8
1. Corporate information	9
2. Basis of preparation of condensed consolidated interim financial statements	10
3. Significant events and transaction related to the three-month period ended March 31, 2024	10
4. Information by business segment and geographic area	11
5. Costs and expenses by nature	13
6. Financial results	14
7. Taxes	14
8. Basic and diluted earnings per share	16
9. Cash flows reconciliation	16
10. Accounts receivable	18
11. Inventories	18
12. Suppliers and contractors	18
13. Other financial assets and liabilities	19
14. Investments in associates and joint ventures	20
15. Acquisitions and divestitures	20
16. Intangibles	22
17. Property, plant, and equipment	22
18. Financial and capital risk management	23
19. Financial assets and liabilities	
20. Participative shareholders' debentures	
21. Loans, borrowings, cash and cash equivalents and short-term investments	
22. Leases	31
23. Brumadinho dam failure	
24. Liabilities related to associates and joint ventures	
25. Provision for de-characterization of dam structures and asset retirement obligations	
26. Legal proceedings	
27. Employee benefits	40
28. Equity	41
29. Related parties	



Report of Independent Registered Public Accounting Firm

To the shareholders and Board of Directors of

Vale S.A.

Results of Review of Interim Financial

Statements

We have reviewed the accompanying consolidated interim statement of financial position of Vale S.A. and its subsidiaries (the "Company") as of March 31, 2024, and the related consolidated interim income statement and statements of comprehensive income, changes in equity and cash flows for the three-month periods ended March 31, 2024 and March 31, 2023, including the related notes (collectively referred to as the "interim financial statements"). Based on our reviews, we are not aware of any material modifications that should be made to the accompanying interim financial statements for them to be in conformity with IAS 34 - Interim Financial Reporting, as issued by the International Accounting Standards Board (IASB).

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated statement of financial position of the Company as of December 31, 2023, and the related consolidated income statement and statements of comprehensive income, changes in equity and cash flows for the year then ended (not presented herein), and in our report dated February 22, 2024, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated statement of financial position as of December 31, 2023, is fairly stated, in all material respects, in relation to the consolidated statement of financial position from which it has been derived.

Basis for Review Results

These interim financial statements are the responsibility of the Company's management. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. We conducted our review in accordance with the standards of the PCAOB. A review of interim financial statements consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the PCAOB, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Rio de Janeirø, April 24, 2024

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Consolidated Interim Income Statement

In millions of United States dollars, except earnings per share

		Three-month p	eriod ended March 31,	
	Notes	2024	2023	
Net operating revenue	4(b)	8,459	8,434	
Cost of goods sold and services rendered	5(a)	(5,367)	(4,949)	
Gross profit		3,092	3,485	
Operating expenses				
Selling and administrative	5(b)	(140)	(118)	
Research and development		(156)	(139)	
Pre-operating and operational stoppage	25	(92)	(124)	
Other operating expenses, net	5(c)	(256)	(223)	
Operating income		2,448	2,881	
Financial income	6	109	121	
Financial expenses	6	(339)	(320)	
Other financial items, net	6	(207)	(331)	
Equity results and other results in associates and joint ventures	14 and 24	124	(55)	
Income before income taxes		2,135	2,296	
Income taxes	7	(448)	(418)	
Net income		1,687	1,878	
Net income attributable to noncontrolling interests		8	41	
Net income attributable to Vale's shareholders		1,679	1,837	
Basic and diluted earnings per share attributable to Vale's shareholders	8			
Common share (US\$)		0.39	0.41	

Consolidated Interim Statement of Comprehensive Income

In millions of United States dollars

		Three-month period	ended March 31,
	Notes	2024	2023
Net income		1,687	1,878
Other comprehensive income:			
Items that will not be reclassified to income statement			
Translation adjustments of the Parent Company		(1,225)	944
Retirement benefit obligations		40	(7)
		(1,185)	937
Items that may be reclassified to income statement			
Translation adjustments of foreign operations		178	(157)
Net investment hedge	18(h)	(56)	49
Cash flow hedge	18(h)	_	19
Reclassification of cumulative translation adjustment to income statement		51	-
		173	(89)
Comprehensive income		675	2,726
Comprehensive income attributable to noncontrolling interests		6	48
Comprehensive income attributable to Vale's shareholders		669	2,678

Items above are stated net of tax when applicable and the related taxes are disclosed in note 7.

Consolidated Interim Statement of Cash Flows

In millions of United States dollars

		Three-month period o	ended March 31,
	Notes	2024	2023
Cash flow from operations	9(a)	4,479	4,280
Interest on loans and borrowings paid	9(c)	(186)	(169)
Cash received on settlement of derivatives, net	18(d)	43	38
Payments related to Brumadinho event	23	(135)	(124)
Payments related to de-characterization of dams	25	(119)	(78)
Income taxes paid (including settlement program)		(506)	(337)
Net cash generated by operating activities		3,576	3,610
Cash flow from investing activities:			
Capital expenditures	4(c)	(1,395)	(1,130)
Payments related to Samarco dam failure		(86)	(77)
Additions to investments		-	(7)
Payments from disposal of investments, net	9(b)	-	(67)
Dividends received from associates and joint ventures		3	-
Short-term investment		(44)	(55)
Other investing activities, net		3	10
Net cash used in investing activities		(1,519)	(1,326)
Cash flow from financing activities:			
Loans and borrowings from third parties	9(c)	870	300
Payments of loans and borrowings from third parties	9(c)	(62)	(39)
Payments of leasing	22	(41)	(47)
Dividends and interest on capital paid to Vale's shareholders	28(d)	(2,328)	(1,795)
Dividends and interest on capital paid to noncontrolling interest		-	(3)
Shares buyback program	28(c)	(275)	(763)
Net cash used in financing activities		(1,836)	(2,347)
Net increase (decrease) in cash and cash equivalents		221	(63)
Cash and cash equivalents in the beginning of the period		3,609	4,736
Effect of exchange rate changes on cash and cash equivalents		(40)	32
Cash and cash equivalents at end of the period		3,790	4,705

Consolidated Interim Statement of Financial Position

In millions of United States dollars

	Notes	March 31, 2024	December31,2023
Assets			
Cash and cash equivalents	21	3,790	3,609
Short-term investments	21	5,790	5,609
Accounts receivable	10	2,233	4,197
Other financial assets	13	420	271
Inventories	11	5,195	4,684
Recoverable taxes	7(e)	840	900
Judicial deposits	26(c)	672	611
Other	20(0)	364	444
		13,558	14,767
Non-current assets held for sale	15(b)	3,970	3,933
	15(6)	17,528	18,700
Non-current assets		17,520	10,700
Judicial deposits	26(c)	669	798
Other financial assets	13	336	593
Recoverable taxes	7(e)	1,384	1,374
Deferred income taxes	7(e) 7(b)	9,699	9,565
	7(0)		•
Other		1,358	1,257
		13,446	13,587
Investments in associates and joint ventures	14	1 00 2	1 077
Investments in associates and joint ventures	14	1,893	1,872
Intangibles		11,258	11,631
Property, plant, and equipment	17	47,552	48,396
		74,149	75,486
Total assets		91,677	94,186
Liabilities			
Current liabilities			
Suppliers and contractors	12	5,546	5,272
Loans and borrowings	21	1,286	824
Leases	21	1,280	197
Other financial liabilities	13	1,708	1,676
	7(e)	1,708	
Taxes payable	7(e) 7(c)	492	1,314
Settlement program ("REFIS")			428
Liabilities related to Brumadinho	23	1,063	1,057
Liabilities related to associates and joint ventures	24	923	837
De-characterization of dams and asset retirement obligations	25	1,045	1,035
Provisions for litigation	26(a)	117	114
Employee benefits	27	602	964
Other		464	376
		15,136	14,094
Liabilities associated with non-current assets held for sale	15(b)	540	561
		15,676	14,655
Non-current liabilities			
Loans and borrowings	21	11,962	11,647
Leases	22	1,234	1,255
Participative shareholders' debentures	20	2,621	2,874
Other financial liabilities	13	3,043	3,373
Settlement program ("REFIS")	7(c)	1,515	1,723
Deferred income taxes	7(b)	848	870
Liabilities related to Brumadinho	23	1,831	2,003
Liabilities related to associates and joint ventures	24	3,267	3,590
De-characterization of dams and asset retirement obligations	25	6,261	6,694
Provisions for litigation	26(a)	885	885
Employee benefits	27	1,288	1,381
Streaming transactions		1,956	1,962
Other		277	293
		36,988	38,550
Total liabilities		52,664	53,205
Equity	28		
Equity attributable to Vale's shareholders		37,487	39,461
Equity attributable to noncontrolling interests		1,526	1,520
Total equity		39,013	40,981
Total liabilities and equity		· · · · · · · · · · · · · · · · · · ·	
		91,677	94,186

Consolidated Interim Statement of Changes in Equity

In millions of United States dollars

										Equity	
									Equity		
							Cumulative		attributable		
		Share	Capital	Profit	Treasury	Other	translation	Retained		noncontrolling	
	Notes	capital	reserve	reserves	shares	reserves	adjustments	earnings	shareholders	interests	Total equity
Balance as of December 31, 2023		61,614	1,139	21,877	(3,504)	(1,774)	(39,891)	-	39,461	1,520	40,981
Net income		-	-	-	-	-	-	1,679	1,679	8	1,687
Other comprehensive income		-	-	(606)	-	50	(454)	-	(1,010)	(2)	(1,012)
Dividends and interest on capital of Vale's shareholders	28(d)	-	-	(2,364)	-	-	-	-	(2,364)	-	(2,364)
Shares buyback program	28(c)	-	-	-	(275)	-	-	-	(275)	-	(275)
Share-based payment program	27(a)	-	-	-	2	(6)	-	-	(4)	-	(4)
Balance as of March 31, 2024		61,614	1,139	18,907	(3,777)	(1,730)	(40,345)	1,679	37,487	1,526	39,013
Balance as of December 31, 2022		61,614	1,139	20,744	(4,980)	(1,675)	(40,975)	-	35,867	1,491	37,358
Net income		-	-	-	-	-	-	1,837	1,837	41	1,878
Other comprehensive income		-	-	500	-	5	336	-	841	7	848
Dividends and interest on capital of Vale's shareholders	28(d)	-	-	(437)	_	-	-	-	(437)	-	(437)
Dividends of noncontrolling interest		-	-	-	_	-	-	-	-	(4)	(4)
Shares buyback program	28(c)	-	-	-	(763)	-	-	-	(763)	-	(763)
Treasury shares used and canceled	28(b)	-	-	(4,164)	4,189	-	-	-	25	-	25
Share-based payment program	27(a)	-	-	-	-	(24)	-	-	(24)	-	(24)
Balance as of March 31, 2023		61,614	1,139	16,643	(1,554)	(1,694)	(40,639)	1,837	37,346	1,535	38,881

Expressed in millions of United States dollar, unless otherwise stated

1. Corporate information

Vale S.A. (the "Parent Company") is a public company headquartered in the city of Rio de Janeiro, Brazil. Vale's share capital consists of common shares, traded on the stock exchange.

In Brazil, Vale's common shares are listed on B3 under the code VALE3. The Company also has American Depositary Receipts (ADRs), with each representing one common share, traded on the New York Stock Exchange (NYSE) under the code VALE. Additionally, the shares are traded on LATIBEX under the code XVALO, which is an unregulated electronic market established by the Madrid Stock Exchange for the trading of Latin American securities. The Company's shareholding structure is disclosed in note 28.

Vale, together with its subsidiaries ("Vale" or the "Company"), is one of the world's largest producers of iron ore and nickel. The Company also produces iron ore pellets and copper. Nickel and copper concentrates contain by-products such as platinum group metals (PGM), gold, silver, and cobalt. Most of the Company's products are sold to international markets, through the Company's main trading Company, Vale International S.A. ("VISA"), a wholly owned subsidiary located in Switzerland.

The Company is engaged in greenfield mineral exploration in six countries, including Brazil, USA, Canada, Chile, Peru and Indonesia. It also operates extensive logistics systems in Brazil and other regions worldwide, including railways, maritime terminals, and ports integrated with mining operations. Additionally, the Company has distribution centers to support its iron ore shipments globally.

As part of its strategy, Vale also holds investments in energy businesses through associates and joint ventures to meet energy consumption needs through renewable sources.

The Company's operations are organized into two operational segments: "Iron Ore Solutions" and "Energy Transition Metals" (note 4).

Iron Ore Solutions – Comprise iron ore extraction and iron ore pellet production, as well as the North, South, and Southeast transportation corridors in Brazil, including railways, ports and terminals linked to mining operations.

- Iron ore: Currently, Vale operates three systems in Brazil for the production and distribution of iron ore. The Northern System (Carajás, State of Pará, Brazil) is fully integrated and comprises three mining complexes and a maritime terminal. The Southeast System (Quadrilátero Ferrífero, Minas Gerais, Brazil) is fully integrated, consisting of three mining complexes, a railway, a maritime terminal, and a port. The Southern System (Quadrilátero Ferrífero, Minas Gerais, Brazil) consists of two mining complexes and two maritime terminals.
- Iron ore pellets: Vale operates six pelletizing plants in Brazil and two in Oman.

Energy Transition Metals – Includes the production of nickel, copper and its by-products. In 2023, the Company transferred the assets related to this segment to a new entity, "Vale Base Metals Limited".

- Nickel: The Company's primary nickel operations are conducted by Vale Canada Limited ("Vale Canada"), which owns
 mines and processing plants in Canada and Indonesia and nickel refining facilities in the United Kingdom and Japan. In
 February 2024, the Company signed a definitive agreement related to the divestment obligation in PT Vale Indonesia
 Tbk ("PTVI"), which will result in the loss of control over this operation (note 15b). Vale also has nickel operations in Onça
 Puma, located in the State of Pará.
- **Copper:** In Brazil, Vale produces copper concentrates at Sossego and Salobo in Carajás, State of Pará. In Canada, Vale produces copper concentrates and copper cathodes associated with its nickel mining operations in Sudbury (located in Ontario), Voisey's Bay (located in Newfoundland and Labrador), and Thompson (located in Manitoba).
- **Cobalt, PGM, and other precious metals:** The ore extracted by Vale Canada in Sudbury yields cobalt, PGMs (Platinum Group Metals), silver, and gold as by-products, which are processed at refining facilities in Port Colborne, Ontario. In Canada, Vale Canada also produces refined cobalt at its Long Harbour facilities in Newfoundland and Labrador. The copper operations in Sossego and Salobo in Brazil also yield silver and gold as by-products.

Expressed in millions of United States dollar, unless otherwise stated

2. Basis of preparation of condensed consolidated interim financial statements

The condensed consolidated interim financial statements of the Company ("interim financial statements") have been prepared and are being presented in accordance with IAS 34 – Interim Financial Reporting, as issued by the International Accounting Standards Board ("IASB"). All relevant information for the interim financial statements, and only this information, are presented and consistent to those used by the Company's Management.

The interim financial statements have been prepared to update users on the relevant events and transactions that occurred in the period and must be read together with the financial statements for the year ended December 31, 2023. Accounting policies, accounting estimates and judgments, risk management and measurement methods are the same as those adopted in the preparation of the latest annual financial statements.

These interim financial statements were authorized for issue by the Board of Directors on April 24, 2024.

a) Functional currency and presentation currency

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

The main exchange rates used by the Company to translate its foreign operations are as follows:

		_		Average rate
		Closing rate	Three-month	period ended March 31,
	March 31, 2024	December 31, 2023	2024	2023
US Dollar ("US\$")	4,9962	4.8413	4,9515	5.1963
Canadian dollar ("CAD")	3,6924	3.6522	3,6723	3.8422
Euro ("EUR")	5,3979	5.3516	5,3768	5.5763

3. Significant events and transaction related to the three-month period ended March 31, 2024

- Acquisition of Aliança Geração de Energia S.A. ("Aliança Geração") In March 2024, the Company entered into an agreement with Cemig Geração e Transmissão S.A. ("Cemig GT") for the acquisition of the entire interest held in Aliança Geração, for US\$500 (R\$2,700 million). Upon completion of the transaction, which is subject to usual conditions precedent, Vale will hold 100% of Aliança Geração's share capital and will consolidate the entity. Further details are presented in note 15(a) of these interim financial statements.
- Shareholders remuneration In March 2024, the Company paid dividends and interest on capital to its shareholders in the amount of US\$2,328. Further details are presented in note 28(d) of these interim financial statements.
- Divestment of PT Vale Indonesia Tbk ("PTVI") In February 2024, the Company and Sumitomo Metal Mining Co., Ltd. ("SMM") signed a definitive agreement with PT Mineral Industri Indonesia ("MIND ID") to sell a portion of the investment held in PTVI. Upon completion of the transaction, Vale will receive US\$160 for its stake in PTVI. The closing of the transaction is subject to usual conditions precedent and expected to occur in 2024. Further details are presented in note 15(b) of these interim financial statements.
- Acquisition of equity interest in Anglo American Minério de Ferro Brasil S.A. ("Anglo American Brasil") In February 2024, the Company entered into an agreement for the acquisition of 15% interest in Anglo American Brasil of which Vale will contribute with Serra da Serpentina iron ore resources and a cash contribution of US\$157.5. The closing of the transaction is subject to the usual conditions precedent. Further details are presented in note 15(c) of these interim financial statements.

Expressed in millions of United States dollar, unless otherwise stated

4. Information by business segment and geographic area

The segments are aligned with products and reflect the structure used by Management to evaluate the Company's performance. The responsible bodies for making operational decisions, allocating resources and evaluating performance are the Executive Committee and Board of Directors. Accordingly, the performance of the operating segments is assessed based on a measure of adjusted EBITDA, among other measures.

In 2024, the Company changed its adjusted EBITDA definition to include the "EBITDA from associates and joint ventures", which is a measure of their "equity results" (note 14) excluding (i) net finance costs; (ii) depreciation, depletion, and amortization; (iii) taxation and (iv) impairments.

Therefore, the Company's adjusted EBITDA is defined as operating income or loss, including the EBITDA from interests in associates and joint ventures; and excluding (i) depreciation, depletion, and amortization; and (ii) impairment and results on disposal of non-current assets, net and other. The comparative information in these interim financial statements was restated to reflect this change in the adjusted EBITDA definition.

Additionally, as a result of the reorganization of assets and the governance established for the Energy Transition Metals segment, the "Other" segment was reorganized for a better allocation of direct effects on the Iron Ore Solutions and Energy Transition Metals businesses. These effects were allocated to each segment starting from the period ended March 31, 2024.

Segment	Main activities
Iron Ore Solutions	Comprises the extraction and production of iron ore, iron ore pellets, other ferrous products, and its logistic related services.
Energy Transition Metals	Includes the extraction and production of nickel and its by-products (gold, silver, cobalt, precious metals and others), and copper, as well as its by-products (gold and silver).
Other	Includes corporate expenses not allocated to the operating segment, research and development of greenfield exploration projects, as well as expenses related to the Brumadinho event and de–characterization of dams and asset retirement obligations.

a) Adjusted EBITDA

		Three-month pe	riod ended March 31,
	Notes	2024	2023 (restated)
Iron ore		2,507	2,696
Iron ore pellets		882	692
Other ferrous products and services		70	70
Iron Solutions		3,459	3,458
Nickel		17	353
Copper		284	220
Other energy transition metals		(44)	-
Energy Transition Metals		257	573
Other (i)		(278)	(317)
Adjusted EBITDA		3,438	3,714
Depreciation, depletion and amortization		(714)	(656)
Impairment and results on disposal of non-current assets, net and other (ii)		(73)	(39)
EBITDA from associates and joint ventures		(203)	(138)
Operating income		2,448	2,881
Equity results and other results in associates and joint ventures	14	124	(55)
Financial results	6	(437)	(530)
Income before income taxes		2,135	2,296

(i) Includes expenses from Vale Base Metals Limited that were not allocated to the operating segment in the amount of US\$47 for the three-month period ended March 31, 2024.

(ii) Includes adjustments of US\$67 for the three-month period ended March 31, 2024 (2023: US\$35), to reflect the performance of the streaming transactions at market prices.

Expressed in millions of United States dollar, unless otherwise stated

b) Net operating revenue by shipment destination

					Three-month	period ended Ma	r ch 31, 2024
	Iron Solutions				Energy Trar		
		Iron ore	Other ferrous products and	Nickel and other		Other energy transition	
	Iron ore	pellets	services	products	Copper	metals	Total
China	3,528	-	-	54	92	-	3,674
Japan	520	65	-	97	-	-	682
Asia, except Japan and China	599	39	3	109	64	-	814
Brazil	329	521	145	8	-	3	1,006
United States of America	-	52	-	191	-	-	243
Americas, except United States and Brazil	-	121	-	123	62	-	306
Germany	68	35	-	96	127	-	326
Europe, except Germany	241	41	-	168	232	-	682
Middle East, Africa, and Oceania	7	711	-	8	-	-	726
Net operating revenue	5,292	1,585	148	854	577	3	8,459

				т	hree-month pe	riod ended Mai	rch 31, 2023
		Iro	n Solutions	Energy Transi	tion Metals		
			Other				
			ferrous				
			products	Nickel and			
		Iron ore	and	other			
	Iron ore	pellets	services	products	Copper	Other	Total
China	3,275	-	-	78	54	-	3,407
Japan	479	52	-	158	-	-	689
Asia, except Japan and China	403	41	2	140	44	-	630
Brazil	361	409	105	19	-	25	919
United States of America	-	86	-	425	-	-	511
Americas, except United States and Brazil	1	146	-	143	-	-	290
Germany	91	33	-	174	130	-	428
Europe, except Germany	372	139	-	362	262	-	1,135
Middle East, Africa, and Oceania	-	416	-	9	-	-	425
Net operating revenue	4,982	1,322	107	1,508	490	25	8,434

No customer individually represented 10% or more of the Company's revenues in the periods presented above.

c) Assets by segment

March 31, 2024					Decem	ber 31, 2023	
Iron olutions	Energy Transition Metals	Other	Total	Iron Solutions	Energy Transition Metals	Other	Total
1,362	-	531	1,893	1,349	-	523	1,872
37,759	18,032	3,019	58,810	38,376	18,341	3,310	60,027
	olutions 1,362	Iron Transition olutions Metals 1,362 –	Iron Transition olutions Metals Other 1,362 – 531	Iron Transition olutions Metals Other Total 1,362 – 531 1,893	Iron olutionsTransition MetalsIron OtherIron Solutions1,362-5311,8931,349	IronTransitionIronTransitionolutionsMetalsOtherTotalSolutionsMetals1,362-5311,8931,349-	IronTransitionIronTransitionolutionsMetalsOtherTotalSolutionsMetalsOther1,362-5311,8931,349-523

						Inree-mont	n períoa enaec	a March 31,
				2024				2023
	Iron Solutions	Energy Transition Metals	Other	Total	Iron Solutions	Energy Transition Metals	Other	Total
Capital expenditures								
Sustaining capital (i)	681	328	19	1,028	512	263	29	804
Project execution	320	39	8	367	236	72	18	326
	1,001	367	27	1,395	748	335	47	1,130

(i) According to the Company's shareholders remuneration policy, dividends are calculated based on 30% of the adjusted EBITDA less sustaining capital investments.

Expressed in millions of United States dollar, unless otherwise stated

d) Assets by geographic area

	March 31, 2024					Decem	ber 31, 2023	
	Investments in associates and joint ventures	Intangible	Property, plant and equipment	Total	Investments in associates and joint ventures	Intangible	Property, plant and equipment	Total
Brazil	1,893	9,490	33,144	44,527	1,872	9,822	33,769	45,463
Canada	-	1,766	11,717	13,483	-	1,808	11,890	13,698
Americas, except Brazil and Canada	-	-	4	4	-	-	4	4
Indonesia	-	-	60	60	_	-	59	59
China	-	1	14	15	_	1	14	15
Asia, except Indonesia and China	-	1	715	716	-	-	731	731
Europe	-	-	667	667	_	-	678	678
Oman	-	-	1,231	1,231	-	-	1,251	1,251
Total	1,893	11,258	47,552	60,703	1,872	11,631	48,396	61,899

5. Costs and expenses by nature

a) Cost of goods sold, and services rendered

	Three-month peri	od ended March 31,
	2024	2023
Services	1,031	799
Freight	938	682
Depreciation, depletion and amortization	678	613
Materials	641	591
Personnel	553	688
Acquisition of products	374	535
Fuel oil and gas	369	385
Royalties	289	232
Energy	169	167
Others	325	257
Total	5,367	4,949

b) Selling and administrative expenses

	Three-m	onth period ended March 31,
	2024	2023
Personnel	67	56
Services	34	32
Depreciation and amortization	10	11
Other	29	19
Total	140	118

c) Other operating expenses, net

	Notes 23 26(a)	Three-month perio	d ended March 31,
	Notes	2024	2023
Expenses related to Brumadinho event	23	102	111
Provision for litigations	26(a)	50	31
Profit sharing program		85	55
Impairment and results on disposal of non-current assets, net		6	4
Other		13	22
Total		256	223

Expressed in millions of United States dollar, unless otherwise stated

6. Financial results

	Three-month period ended March 3			
	Notes	2024	2023	
Financial income				
Short-term investments		81	88	
Other		28	33	
		109	121	
Financial expenses				
Loans and borrowings interest	9(c)	(166)	(175)	
Interest on REFIS		(28)	(38)	
Interest on lease liabilities	22	(14)	(15)	
Interest on supplier liabilities		(46)	(38)	
Other		(85)	(54)	
		(339)	(320)	
Other financial items, net				
Foreign exchange and indexation gains (losses), net		(373)	(476)	
Participative shareholders' debentures	20	164	(47)	
Derivative financial instruments, net	18(c)	2	192	
		(207)	(331)	
Total		(437)	(530)	

7. Taxes

a) Income tax reconciliation

In December 2021, the Organization for Economic Co-operation and Development ("OECD") released the Pillar Two model rules to reform international corporate taxation. Multinational economic groups within the scope of these rules are required to calculate their effective tax rate in each country where they operate, the "GloBE effective tax rate".

When the effective GloBE rate of any entity in the economic group, aggregated by jurisdiction where the group operates, is lower than the minimum rate defined at 15%, the multinational group must pay a supplementary amount of tax on profit, referring to the difference between its rate effective GloBE and the minimum tax rate.

From 2024, the Company is subject to OECD Pillar Two model rules in the Netherlands, Switzerland, United Kingdom, Japan and Luxembourg. There was no material impact on these interim financial statements due to this matter.

Income tax expense is recognized based on the estimate of the weighted average effective tax rate expected for the full year, adjusted for the tax effect of certain items that are recognized in full on the interim tax calculation. Therefore, the effective tax rate in the interim financial statements may differ from management's estimate of the effective tax rate for the year. The reconciliation of the taxes calculated according to the nominal tax rates and the amount of taxes recorded is shown below:

	Three-month period	d ended March 31,
	2024	2023
ustments that affect the taxes basis: incentives nity results luction of tax loss carryforward lassification of cumulative adjustments to the income statement ner	2,135	2,296
Income taxes at statutory rate (34%)	(726)	(781)
Adjustments that affect the taxes basis:		
Tax incentives	469	405
Equity results	(7)	(30)
Reduction of tax loss carryforward	(156)	(71)
Reclassification of cumulative adjustments to the income statement	(17)	-
Other	(11)	59
Income taxes	(448)	(418)
Current tax	(734)	(218)
Deferred tax (i)	286	(200)
Income taxes	(448)	(418)

(i) Includes US\$11 related to deferred tax liabilities of PT Vale Indonesia Tbk ("PTVI"), which is classified as held for sale (note 15b).

Expressed in millions of United States dollar, unless otherwise stated

b) Deferred income tax assets and liabilities

	Assets	Liabilities	Deferred taxes, net
Balance as of December 31, 2023	9,565	870	8,695
Effect in income statement	245	(52)	297
Other comprehensive income	136	17	119
Transfer between assets and liabilities	31	31	-
Translation adjustment	(278)	(18)	(260)
Balance as of March 31, 2024	9,699	848	8,851
Balance as of December 31, 2022	10,770	1,413	9,357
Effect in income statement	(229)	(29)	(200)
Other comprehensive income	(5)	(5)	-
Translation adjustment	263	-	263
Balance as of March 31, 2023	10,799	1,379	9,420

c) Income taxes - Settlement program ("REFIS")

	March 31, 2024	December 31, 2023
Current liabilities	492	428
Non-current liabilities	1,515	1,723
REFIS liabilities	2,007	2,151
SELIC rate	10.75%	11.75%

The balance mainly relates to the settlement program of claims regarding the collection of income tax and social contribution on equity gains of foreign subsidiaries and associates from 2003 to 2012. This amount bears SELIC interest rate (Special System for Settlement and Custody) and will be paid in monthly installments until October 2028 and the impact of the SELIC over the liability is recorded under the Company's financial results (note 6).

d) Uncertain tax positions ("UTP")

The amount under discussion with the tax authorities is US\$5,265 as of March 31, 2024 (December 31, 2023: US\$5,408) which includes the reduction of tax losses in the amount of US\$732 as of March 31, 2024 (December 31, 2023: US\$754), if the tax authority does not accept the tax treatment adopted by the Company in relation to these matters.

	March 31, 2024				Decemb	December 31, 2023	
	Not in			Not in dispute	Not in dispute		
	Assessed (i)	dispute (ii)	Total	Assessed (i)	(ii)	Total	
UTPs not recorded on statement of financial position (iii)							
Transfer pricing over the exportation of ores to a foreign subsidiary	2,158	2,897	5,055	2,144	3,010	5,154	
Expenses of interest on capital	1,490	-	1,490	1,511	-	1,511	
Proceeding related to income tax paid abroad	505	-	505	512	-	512	
Goodwill amortization	598	189	787	606	190	796	
Payments to Renova Foundation	164	520	684	167	536	703	
Other	350	-	350	468	-	468	
	5,265	3,606	8,871	5,408	3,736	9,144	
UTPs recorded on statement of financial position							
Deduction of CSLL in Brazil	181	-	181	183	-	183	
	181	-	181	183	-	183	

(i) Includes the tax effects arising from the reduction of the tax losses and negative basis of the CSLL without fines and interest.

(ii) Includes the principal, without fines and interest.

(iii) Based on the assessment of its internal and external legal advisors, the Company believes that the tax treatment adopted for these matters will be accepted in decisions of the higher courts on last instance.

Expressed in millions of United States dollar, unless otherwise stated

e) Recoverable and taxes payables

	March 31, 2024				December 31, 2023		
		Non-			Non-		
	Current assets	current assets	Current liabilities	Current assets	current assets	Current liabilities	
Value-added tax ("ICMS")	194	2	22	232	5	25	
Brazilian federal contributions ("PIS" and "COFINS") (i)	319	1,030	624	355	1,010	615	
Income taxes	318	351	780	302	358	429	
Financial compensation for the exploration of mineral resources ("CFEM")	-	-	66	-	-	93	
Other	9	1	206	11	1	152	
Total	840	1,384	1,698	900	1,374	1,314	

(i) In December 2023, a judicial decision was issued in a lawsuit filed in 2011 by Valepar (merged by Vale) seeking the right to exclude the amount of dividends received in the form of interest on capital ("JCP") from the PIS and COFINS tax, which was fully guaranteed by a judicial deposit. The aforementioned judicial decision determined the conversion of part of the judicial deposit to the Government, which was concluded in April 2024 (subsequent event).

8. Basic and diluted earnings per share

The basic and diluted earnings per share are presented below:

	Three-month period e	ended March 31,
	2024	2023
Net income attributable to Vale's shareholders	1,679	1,837
Thousands of shares		
Weighted average number of common shares outstanding	4,285,865	4,453,110
Weighted average number of common shares outstanding and potential ordinary shares	4,289,631	4,456,941
Basic and diluted earnings per share		
Common share (US\$)	0.39	0.41

9. Cash flows reconciliation

a) Cash flow from operating activities

	Three-month period ended March 31		
	Notes	2024	2023
Cash flow from operating activities:			
Income before income taxes		2,135	2,296
Adjusted for:			
Equity results and other results in associates and joint ventures	14	(124)	55
Impairment and results on disposal of non-current assets, net		6	4
Review of estimates related to Brumadinho	23	(6)	_
Review of estimates related to de-characterization of dams	25	(61)	-
Depreciation, depletion and amortization		714	656
Financial results, net	6	437	530
Changes in assets and liabilities:			
Accounts receivable	10	1,935	1,686
Inventories	11	(626)	(363)
Suppliers and contractors	12	378	(105)
Other assets and liabilities, net		(309)	(479)
Cash flow from operations		4,479	4,280

b) Cash flow from investing activities

		Three-month per	iod ended March 31,
	Notes	2024	2023
Cash received from the sale of Companhia Siderúrgica do Pecém	15(d)	-	1,082
Cash contribution to Companhia Siderúrgica do Pecém	15(d)	-	(1,149)
Payments from disposal of investments, net		-	(67)

Expressed in millions of United States dollar, unless otherwise stated

c) Reconciliation of debt to cash flows arising from financing activities

	Quoted in the secondary market	Debt contracts in Brazil	Debt contracts on the international market	Total
December 31, 2023	7,474	250	4,747	12,471
Additions		-	870	870
Payments	(40)	(12)	(10)	(62)
Interest paid (i)	(92)	(6)	(88)	(186)
Cash flow from financing activities	(132)	(18)	772	622
Effect of exchange rate	(9)	(7)	_	(16)
Interest accretion	85	6	80	171
Non-cash changes	76	(1)	80	155
March 31, 2024	7,418	231	5,599	13,248
December 31, 2022	6,497	280	4,404	11,181
Additions	_	-	300	300
Payments	(17)	(12)	(10)	(39)
Interest paid (i)	(109)	(7)	(53)	(169)
Cash flow from financing activities	(126)	(19)	237	92
Effect of exchange rate	7	(7)	1	15
Interest accretion	107	8	61	176
Non-cash changes	114	15	62	191
March 31, 2023	6,485	276	4,703	11,464

(i) Classified as operating activities in the statement of cash flows.

Funding

- In March 2024, the Company contracted a loan of US\$360 with the Japan Bank of International Cooperation ("JBIC") indexed to SOFR plus spread adjustments and maturing in 2035.
- In March 2024, the Company contracted a loan of US\$60 with the Canadian Imperial Bank of Commerce ("CIBC") indexed to SOFR plus spread adjustments and maturing in 2024.
- In February 2024, the Company contracted a loan of US\$166 with Banco Santander indexed to SOFR plus spread adjustments and maturing in 2025.
- In February 2024, the Company contracted a loan of US\$34 with Credit Agricole Bank indexed to SOFR plus spread adjustments and maturing in 2025.
- From January to February 2024, the Company contracted a loan of US\$250 with Banco Bradesco with a fixed rate maturing in 2025.
- In March 2023, the Company contracted a loan of US\$300 with the Industrial and Commercial Bank of China Limited, Panama Branch ("ICBC") indexed to SOFR plus spread adjustments and maturing in 2028.

Payments

- In January 2024, the Company paid principal and interest of debentures, in the amount of U\$46.
- In January 2023, the Company paid principal and interest of debentures, in the amount of U\$24.

d) Non-cash transactions

	Three-month period ended Ma	rch 31,
	2024	2023
Non-cash transactions:		
Additions to PP&E with capitalized loans and borrowing costs	5	5

Expressed in millions of United States dollar, unless otherwise stated

10. Accounts receivable

	Notes	March 31, 2024	December 31, 2023
Receivables from contracts with customers			
Third parties			
Iron Solutions		1,395	3,406
Energy Transition Metals		692	743
Other		8	3
Related parties	29(b)	182	89
Accounts receivable		2,277	4,241
Expected credit loss		(44)	(44)
Accounts receivable, net		2,233	4,197

Provisionally priced commodities sales – The Company is mainly exposed to iron ore and copper price risk. The determination of the final sales price for these commodities is based on the pricing period outlined in the sales contracts, typically occurring after the revenue recognition date. Consequently, the Company initially recognizes revenue using a provisional invoice. Subsequently, the receivables associated with provisionally priced products are measured at fair value through profit or loss (note 19). Any fluctuations in the value of these receivables are reflected in the Company's net operating revenue.

The sensitivity of the Company's risk related to the final settlement of provisionally priced accounts receivables is detailed below:

			Three-month period	ended March 31, 2024
	Thousand metric tons	Provisional price (US\$/ton)	Variation	Effect on Revenue (US\$ million)
		1.1.1.1.1		
lron ore	12,852	102	+/- 10%	+/- 131
Copper	54	8,263	+/- 10%	+/- 45

11. Inventories

	March 31, 2024	December 31, 2023
Finished products		
Iron Solutions	2,888	2,457
Energy Transition Metals	662	640
	3,550	3,097
Work in progress	676	567
Consumable inventory	1,127	1,159
Net realizable value provision (i)	(158)	(139)
Total of inventories	5,195	4,684

(i) In the three-month period ended March 31, 2024, the effect of provision for net realizable value was US\$49 (2023: Reversal of provision in the amount of US\$10).

12. Suppliers and contractors

	Notes	March 31, 2024	December 31, 2023
Third parties – Brazil		3,884	3,461
Third parties – Abroad		1,538	1,653
Related parties	29(b)	124	158
Total		5,546	5,272

The Company has supplier finance arrangements, which do not substantially modify the original liabilities and remain presented as suppliers. The outstanding balance related to those transactions was US\$1,430 as of March 31, 2024 (December 31, 2023: US\$1,438), of which US\$248 (December 31, 2023: US\$221) relates to the structure created by the Company with the exclusive purpose of enabling small and medium suppliers to anticipate their receivables with better interest rates, in line with Company's social pillar.

Expressed in millions of United States dollar, unless otherwise stated

13. Other financial assets and liabilities

		Current			Non-Current
	Notes	March 31, 2024	December 31, 2023	March 31, 2024	December 31, 2023
Other financial assets					
Restricted cash		-	-	4	4
Derivative financial instruments	18(a)	420	271	287	544
Investments in equity securities		-	-	45	45
		420	271	336	593
Other financial liabilities					
Derivative financial instruments	18(a)	20	36	64	95
Other financial liabilities – Related parties	29(b)	261	290	-	-
Liabilities related to the concession grant	13(a)	745	591	2,979	3,278
Advances and other financial obligations (i)		682	759	-	-
		1,708	1,676	3,043	3,373

(i) Includes advances received from customers and other financial obligations.

a) Liabilities related to the concession grant

				Consolidated		Dis	Discount rate	
			Monetary					
			and present					Remaining
	December	Revision to	value		March 31,	March 31,	December	term of
	31, 2023	estimates	adjustments	Disbursements	2024	2024	31, 2023	obligations
Payment obligation	1,130	-	(7)	(15)	1,108	11.04%	11.04%	34 years
Infrastructure investment	2,739	(31)	(51)	(41)	2,616	5.62% - 5.90%	5.17% - 5.54%	8 years
	2 0 0 0	(24)	(50)	(5.6)	2.72/	5.90%	5.54%	
	3,869	(31)	(58)	(56)	3,724			
Current liabilities	591				745			
Non-current liabilities	3,278				2,979			
Liabilities	3,869				3,724			

The Company is currently discussing with the Brazilian Ministry of Transport the general conditions for optimizing the investment plans of Estrada de Ferro Carajás ("EFC") and Estrada de Ferro Vitória a Minas ("EFVM") concessions contracts, both of which are currently being fulfilled by Vale in accordance with the contracts in place.

The potential change in the agreements is still uncertain as it is subject to conclusion of the negotiations and approval by the Company and relevant authorities. Any changes to the existing obligation will be recorded after the conclusion of the negotiations and based on the final terms agreed.

Therefore, until there is any change in the existing concession contracts, the Company will continue to comply with its obligations under the agreements, which are reflected in the Company's liability recorded in these interim financial statements.

Expressed in millions of United States dollar, unless otherwise stated

14. Investments in associates and joint ventures

			Equity results in				
		December	income	Dividends	Translation		March 31,
Associates and joint ventures	% ownership	31, 2023	statement	declared	adjustment	Other	2024
Iron Solutions							
Baovale Mineração S.A.	50.00	28	1	(1)	(1)	(1)	26
Companhia Coreano-Brasileira de Pelotização	50.00	73	6	-	(2)	-	77
Companhia Hispano-Brasileira de Pelotização	50.89	49	4	-	(1)	-	52
Companhia Ítalo-Brasileira de Pelotização	50.90	63	4	-	(3)	-	64
Companhia Nipo-Brasileira de Pelotização	51.00	150	9	-	(4)	-	155
MRS Logística S.A.	48.45	640	30	-	(20)	-	650
VLI S.A.	29.60	346	4	-	(12)	-	338
Samarco Mineração S.A. (note 24)	50.00	-	-	-	-	-	-
		1,349	58	(1)	(43)	(1)	1,362
Others							
Aliança Geração de Energia S.A.	55.00	356	9	-	(11)	19	373
Aliança Norte Energia Participações S.A.	51.00	106	(3)	-	(3)	-	100
Other		61	1	(1)	(2)	(1)	58
		523	7	(1)	(16)	18	531
Equity results in associates and joint ventures		1,872	65	(2)	(59)	17	1,893
Other results in associates and joint ventures		-	59	-	_	-	-
Equity results and other results in associates and							
joint ventures		1,872	124	(2)	(59)	17	1,893

15. Acquisitions and divestitures

		Equity results and other resu	Its in associates and joint ventures
		Th	ree-month period ended March 31,
	Reference	2024	2023
Companhia Siderúrgica do Pecém	15(d)	-	37
		-	37

a) Acquisition of Aliança Geração de Energia S.A. ("Aliança Geração") – Aliança Geração is a joint venture of Vale, which operates hydroelectric and wind power plants in Brazil, in which the Company holds a 55% interest. Aliança Geração's power generation asset portfolio consists of seven hydroelectric power plants in the state of Minas Gerais and three wind farms in operation in the states of Rio Grande do Norte and Ceará, Brazil.

In March 2024, the Company entered into an agreement with Cemig Geração e Transmissão S.A. ("Cemig GT") for the acquisition of the entire 45% interest held for Cemig GT in Aliança Geração, for US\$540 (R\$2,700 million). The interest acquisition in Aliança Geração will be the first step towards creating an energy platform and, after the acquisition is completed, Vale will seek potential partners for this platform.

Upon the closing, which is subject to approval by Cemig GT's General Shareholders' Meeting and to usual precedent conditions, Vale will hold 100% of Aliança Geração's share capital, obtaining control over the entity and consolidating its assets, liabilities and results in the Company's financial statements.

b) Divestment on PT Vale Indonesia Tbk ("PTVI") – PTVI has a Contract of Work with the government of Indonesia to operate its mining licenses, expiring in December 2025. To extend the period of the mining licenses beyond 2025, PTVI must meet certain requirements under the Contract of Work, including the commitment to meet a threshold of Indonesian participants in its shareholding structure.

Due to the divestment obligation in PTVI, the Company and Sumitomo Metal Mining Co., Ltd. ("SMM") signed a definitive agreement to sell a portion of the investment held in PTVI with PT Mineral Industri Indonesia ("MIND ID"), which will become PTVI's largest shareholder. Once completed, the transaction fulfils Indonesia's divestment obligations and satisfies a key condition for PTVI to extend its mining license.

Currently, Vale, SMM and MIND ID respectively hold 44.3%, 15.0% and 20.0% of issued shares. Upon completion, Vale, SMM and MIND ID will hold approximately 33.9%, 11.5% and 34.0% respectively. Approximately 20.6% will continue to be held by the public on the Indonesia Stock Exchange.

Upon closing of the transaction, the Company will receive US\$160 and will lose control over PTVI. Therefore, Vale will account for the investment held in PTVI under the equity method due to the significant influence it will retain over PTVI.

Expressed in millions of United States dollar, unless otherwise stated

As a result, the Company expects to record a gain related to the effects of the deconsolidation of PTVI and remeasurement of the retained interest at the fair value. The conclusion of the transaction is expected to occur in 2024 and is subject to customary closing conditions.

In addition, the assets and liabilities of PTVI are classified as held for sale since December 31, 2023, as it meets the criteria of IFRS 5 – *Non-Current Assets Held for Sale and Discontinued Operation*. No impairment loss was recorded in the income statement for the period ended March 31, 2024.

Balance sheet of PTVI classified as held for sale

	March 31, 2024	December 31, 2023
Assets		· · · · · · · · · · · · · · · · · · ·
Cash and cash equivalents	735	703
Accounts receivable	18	20
Inventories	121	80
Taxes	98	117
Investments	13	13
Property, plant and equipment	2,803	2,792
Intangible	69	69
Other assets	113	139
	3,970	3,933
Liabilities		
Suppliers and contractors	143	172
Deferred income taxes	226	213
Other liabilities	171	176
	540	561
Net assets held for sale	3,430	3,372

c) Acquisition of equity interest in Anglo American Minério de Ferro Brasil S.A. ("Anglo American Brasil") – In February 2024, the Company entered into an agreement with Anglo American plc for the acquisition of 15% interest in Anglo American Brasil, the company that currently owns the Minas-Rio complex ("Minas-Rio"), in Brazil. Under the terms agreed, Vale will contribute with Serra da Serpentina iron ore resources and a cash contribution of US\$157,5 million, subject to net debt and working capital variation adjustments at the closing date. Additionally, depending on the future iron ore prices, there may be an adjustment in the transaction price and the fair value adjustments of this mechanism will be recognized in the Company's income statements accordingly.

Following completion of the transaction, Vale will receive its pro-rata share of Minas-Rio production and the Company will also have an option to acquire an additional 15% shareholding in Minas-Rio. The option will be exercised at fair value, calculated at the time of exercise.

The closing of the transaction is subject to the usual conditions precedent. Upon completion of the transaction, Anglo American Brasil will be an associate of Vale and the investment will be accounted for under the equity method.

d) Companhia Siderúrgica do Pecém ("CSP") – In July 2022, the Company and the other shareholders of CSP signed a binding agreement with ArcelorMittal Brasil S.A. ("ArcelorMittal") for the sale of CSP. In March 2023, the Company completed the sale of its interest in CSP to ArcelorMittal. Under the terms of the agreement, Vale has received US\$1,042 from the buyer and made a cash contribution of US\$1,189 to CSP upon closing, which was fully used to prepay the outstanding net debt of CSP as determined by the agreement. In addition, the Company derecognized its financial liability related to the guarantee granted to CSP, leading to a gain of US\$37 recognized as "Equity results and other results in associates and joint ventures" for the three-month period ended March 31, 2023.

Expressed in millions of United States dollar, unless otherwise stated

16. Intangibles

				Research and	
	Goodwill	Concessions	Software	development project	Total
Balance as of December 31, 2023	3,263	7,689	104	575	11,631
Additions	-	37	14	-	51
Disposals	_	-	-	(5)	(5)
Amortization	-	(62)	(18)	-	(80)
Translation adjustment	(80)	(239)	(3)	(17)	(339)
Balance as of March 31, 2024	3,183	7,425	97	553	11,258
Cost	3,183	9,150	632	553	13,518
Accumulated amortization	-	(1,725)	(535)	-	(2,260)
Balance as of March 31, 2024	3,183	7,425	97	553	11,258
Balance as of December 31, 2022	3,189	6,434	87	528	10,238
Additions	_	50	5	-	55
Disposals	_	(3)	-	-	(3)
Amortization	-	(60)	(11)	-	(71)
Translation adjustment	39	174	2	14	229
Balance as of March 31, 2023	3,228	6,595	83	542	10,448
Cost	3,228	8,060	570	542	12,400
Accumulated amortization	-	(1,465)	(487)	-	(1,952)
Balance as of March 31, 2023	3,228	6,595	83	542	10,448

17. Property, plant, and equipment

									Cons	olidated
	-						Right			
		Building			Mineral	Railway	of use		Constructions	
	Notes	and land	Facilities	Equipment	properties	equipment	assets	Other	in progress	Total
Balance as of December 31, 2023		10,119	9,239	4,450	6,925	2,612	1,359	2,484	11,208	48,396
Additions (i)		-	-	-	-	-	15	-	1,307	1,322
Disposals		(3)	(15)	(1)	-	(2)	-	-	(36)	(57)
Assets retirement obligation	25(b)	-	-	-	(53)	-	-	-	-	(53)
Depreciation, depletion and amortization		(113)	(143)	(186)	(127)	(40)	(47)	(83)	-	(739)
Translation adjustment		(292)	(274)	(104)	(185)	(81)	(11)	(63)	(307)	(1,317)
Transfers	_	167	245	145	137	32	-	62	(788)	-
Balance as of March 31, 2024		9,878	9,052	4,304	6,697	2,521	1,316	2,400	11,384	47,552
Cost		17,069	14,705	10,272	15,371	4,342	2,180	5,297	11,384	80,620
Accumulated depreciation		(7,191)	(5,653)	(5,968)	(8,674)	(1,821)	(864)	(2,897)	-	(33,068)
Balance as of March 31, 2024		9,878	9,052	4,304	6,697	2,521	1,316	2,400	11,384	47,552
Balance as of December 31, 2022		8,913	8,042	4,984	7,112	2,475	1,455	2,632	9,325	44,938
Additions (i)		-	-	-	-	-	12	-	1,039	1,051
Disposals	25/4)	(2)	(7)	(5)		(5)	-	(1)	(7)	(27)
Assets retirement obligation	25(b)	-	- (122)	-	(23)		-	- (70)	-	(23)
Depreciation, depletion and amortization		(109) 187	(122) 189	(181) 71	(131) 71	(40)	(45) 10	(79) 45	- 161	<u>(707)</u> 799
Translation adjustment Transfers		519	282	220	31	29	10	36	(1,117)	/99
			8.384				1.432		., ,	46,031
Balance as of March 31, 2023		9,508		5,089	7,060	2,524		2,633	9,401	•
Cost		16,804	13,404	11,949	15,705	4,218	2,147	5,517	9,401	79,145
Accumulated depreciation		(7,296)	(5,020)	(6,860)		., .	(715)	、 / · · · /	-	(33,114)
Balance as of March 31, 2023		9,508	8,384	5,089	7,060	2,524	1,432	2,633	9,401	46,031

(i) Includes capitalized interest, when applicable.

For more details regarding right of use and lease liability see note 22.

Expressed in millions of United States dollar, unless otherwise stated

18. Financial and capital risk management

a) Effects of derivatives on the statement of financial position

Total	707	84	815	131	
				<u>∠</u>	
Other	42	5	52	30	
Energy Transition Metals	-	5	-	8	
Commodities price risk Gasoil, Brent and freight	42		52	22	
	665	76	763	99	
DFR swap	8	-	4	28	
Dollar swap and forward transactions	566	-	650	-	
IPCA swap	-	44	-	41	
CDI & TJLP vs. US\$ fixed and floating rate swap	91	32	109	30	
Foreign exchange and interest rate risk	Abbets		Abbetto		
	Assets	Liabilities	Assets	Liabilities	
		March 31, 2024	December 31, 2023		

b) Net exposure

	March 31, 2024	December 31, 2023
Foreign exchange and interest rate risk		
CDI & TJLP vs. US\$ fixed and floating rate swap	59	79
IPCA swap	(44)	(41)
Dollar swap and forward transactions	566	650
SOFR swap	8	(24)
	589	664
Commodities price risk		
Gasoil, Brent and freight	42	30
Energy Transition Metals	(5)	(8)
	37	22
Other	(3)	(2)
Total	623	684

c) Effects of derivatives on the income statement

	Gain (loss) recognized in the in	come statement
	Three-month period	
	2024	2023
Foreign exchange and interest rate risk		
CDI & TJLP vs. US\$ fixed and floating rate swap	(13)	44
IPCA swap	(5)	7
Dollar swap and forward operations	(28)	162
DFR swap	32	3
	(14)	216
Commodities price risk		
Gasoil, Brent and freight	17	(24)
Energy Transition Metals	-	(1)
	17	(25)
Other	(1)	1
Total	2	192

Expressed in millions of United States dollar, unless otherwise stated

d) Effects of derivatives on the cash flows

	Financial settlement in	flows (outflows)
	Three-month period	ended March 31,
	2024	2023
Foreign exchange and interest rate risk		
CDI & TJLP vs. US\$ fixed and floating rate swap	4	(4)
IPCA swap	-	1
Dollar swap and forward operations	37	20
	41	17
Commodities price risk		
Gasoil, Brent and freight	5	2
Energy Transition Metals	(3)	5
	2	7
Derivatives designated as cash flow hedge accounting		
Nickel	-	14
	-	14
Total	43	38

e) Market risk - Foreign exchange and interest rates

Protection programs for the R\$ denominated debt instruments and other liabilities

							Financial Settlement				
							Inflows	Value at			
	Notio				Fair v		(Outflows)	Risk	Fair v	alue b	y year
	March 31,	December		Average	March 31,	December	March 31,	March 31,			
Flow	2024	31, 2023	Index	rate	2024	31, 2023	2024	2024	2024		2026+
CDI vs. US\$ fixed rate swap					89	107	4	17	13	23	53
Receivable	R\$ 4,895	R\$ 5,162	CDI	100.00%							
Payable	US\$ 1,134	US\$ 1,196	Fix	2.00%							
TJLP vs. US\$ fixed rate swap					(30)	(28)	-	2	(4)	(5)	(21)
Receivable	R\$ 661	R\$ 694	TJLP +	105.00%							
Payable	US\$ 164	US\$ 173	Fix	3.45%							
				_	59	79	4	19	9	18	32
IPCA vs. US\$ fixed rate swap					(44)	(41)	-	4	(6)	(6)	(32)
Receivable	R\$ 1,024	R\$ 1,078	IPCA +	4.54%							
Payable	US\$ 253	US\$ 267	Fix	3.88%							
					(44)	(41)	-	4	(6)	(6)	(32)
R\$ fixed rate vs. US\$ fixed											
rate swap					527	600	29	33	278	247	2
Receivable	R\$ 12,028	R\$ 12,660	Fix	7.41%							
Payable	US\$ 2,314	US\$ 2,431	Fix	0.00%							
Forward	R\$ 1,019	R\$ 1,209	В	5.29	39	50	7	2	29	8	2
					566	650	36	35	307	255	4

Expressed in millions of United States dollar, unless otherwise stated

The sensitivity analysis of these derivative financial instruments is presented as follows:

Instrument	Instrument's main risk events	Fair value	Scenario I (∆ of 25%)	Scenario II (∆ of 50%)
CDI vs. US\$ fixed rate swap	R\$ depreciation	89	(190)	(470)
	US\$ interest rate inside Brazil decrease	89	57	22
	Brazilian interest rate increase	89	63	38
Protected item: R\$ denominated liabilities	R\$ depreciation	n.a.	-	-
TJLP vs. US\$ fixed rate swap	R\$ depreciation	(30)	(70)	(109)
	US\$ interest rate inside Brazil decrease	(30)	(34)	(39)
	Brazilian interest rate increase	(30)	(36)	(41)
	TJLP interest rate decrease	(30)	(34)	(38)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.	-	-
PCA swap vs. US\$ fixed rate swap	R\$ depreciation	(44)	(106)	(167)
	US\$ interest rate inside Brazil decrease	(44)	(51)	(58)
	Brazilian interest rate increase	(44)	(53)	(62)
	IPCA index decrease	(44)	(48)	(52)
Protected item: R\$ denominated debt	R\$ depreciation	n.a.	-	-
R\$ fixed rate vs. US\$ fixed rate swap	R\$ depreciation	527	(17)	(562)
	US\$ interest rate inside Brazil decrease	527	495	462
	Brazilian interest rate increase	527	467	410
Protected item: R\$ denominated debt	R\$ depreciation	n.a.	-	-
Forward	R\$ depreciation	39	1	(38)
	US\$ interest rate inside Brazil decrease	39	39	39
	Brazilian interest rate increase	39	39	39
Protected item: R\$ denominated liabilities	R\$ depreciation	n.a.	_	_

Protection program for interest rate US\$ denominated debt

	Noti	onal			Fair value	Financial Settlement Inflows (Outflows)	Value at Risk	Fair	value	by year
	March 31,	December	Average	March 31,	December	March 31,	March 31,			
Flow	2024	31, 2023 Index	rate	2024	31, 2023	2024	2024	2024	2025	2026+
SOFR vs. US\$ fixed rate swap				8	(24)	-	5	4	7	(3)
Receivable	US\$ 2,300	US\$ 2,300 SOFR	0.08%							
Payable	US\$ 2,300	US\$ 2,300 Fix	3.60%							

The sensitivity analysis of these derivative financial instruments is presented as follows:

Instrument	Instrument's main risk events	Fair value	Scenario I (∆ of 25%)	Scenario II (∆ of 50%)
SOFR vs. US\$ fixed rate swap	US\$ SOFR decrease	8	(42)	(94)
Protected item: SOFR US\$ indexed debt	US\$ SOFR decrease	n.a.	42	94

Expressed in millions of United States dollar, unless otherwise stated

f) Protection program for product prices and input costs

		Notional				Fair value	Financial settlement Inflows (Outflows)	Value	Fair va	lue by year
Flow	March 31, 2024	December 31, 2023		Average strike (US\$)	March 31, 2024	December 31, 2023	•	March 31, 2024	2024	2025
Brent crude oil (bbl)										
Call options	18,764,250	19,907,250	В	91	32	45	-	15	32	-
Put options	18,764,250	19,907,250	S	59	(1)	(22)	_	-	(1)	-
Forward Freight Agreement (days)										
Freight forwards	880	1,210	В	15,252	11	7	5	1	11	-
					42	30	5	16	42	-

The sensitivity analysis of these derivative financial instruments is presented as follows:

Instrument	Instrument's main risk events	Fair value	Scenario I (∆ of 25%)	Scenario II (∆ of 50%)
Brent crude oil (bbl)				
Options	Price input decrease	31	(28)	(307)
Protected item: Part of costs linked to fuel oil prices	Price input decrease	n.a.	28	307
Forward Freight Agreement (days)				
Forwards	Freight price decrease	11	5	(1)
Protected item: Part of costs linked to maritime freight pr	ices Freight price decrease	n.a.	(5)	1

g) Other derivatives, including embedded derivatives in contracts

		Notional				Fair value	Financial settlement Inflows (Outflows)	Value at Risk	Fair v	alue by year
Flow	March 31, 2024	December 31, 2023		Average strike (US\$/ton)	March 31, 2024	December 31, 2023	•	March 31, 2024	2024	2025+
Fixed price nickel sales protection (ton)										
Nickel forwards	3,516	3,322	В	13,271	(5)	(8)	(3)	2	(4)	(1)
Hedge program for products acquisition for resale (ton)										
					(5)	(8)	(3)	2	(4)	(1)
Embedded derivative (pellet price) in natural gas purchase (volume/month)										
Call options	746,667	746,667	S	233	(3)	(2)	-	2	(3)	-
					(3)	(2)	-	2	(3)	-

Expressed in millions of United States dollar, unless otherwise stated

The sensitivity analysis of these derivative financial instruments is presented as follows:

Instrument	Instrument's main risk events	Fair value	Scenario I (∆ of 25%)	Scenario II (∆ of 50%)
Fixed price sales protection (ton)				
Forwards	Nickel price decrease	(5)	(20)	(34)
Protected item: Part of nickel revenues with fixed prices	Nickel price decrease	n.a.	20	34
Hedge program for products acquisition for resale (ton)				
Forwards	Nickel price increase	n.a.	-	-
Protected item: Part of revenues from products for resale	Nickel price increase	n.a.	-	-
Embedded derivative (pellet price) in natural gas purchase agreement (volume/month)				
Embedded derivatives - Gas purchase	Pellet price increase	(3)	(8)	(16)

h) Hedge accounting

		l in the other comprehensive income
	т	hree-month period ended March 31,
	2024	2023
Net investments hedge	(56)	49
Cash flow hedge (i)	-	19

(i) The nickel revenue hedge program contracted for the year 2023 ended on December 31, 2023. Revenue hedge programs are implemented by the Company in line with its business strategy. In 2024, no new programs have been contracted.

i) Financial counterparties' ratings

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

The table below presents the ratings in foreign currency as published by Moody's regarding the main financial institutions used by the Company to contract derivative instruments, cash and cash equivalents transaction.

		March 31, 2024	D	ecember 31, 2023
	Cash and cash equivalents and investment	Derivatives	Cash and cash equivalents and investment	Derivatives
Aa2	224	-	338	-
Aa3	-	-	42	-
A1	1,658	43	2,022	50
A2	-	262	309	293
A3	692	14	186	22
Baa1	1	-	2	-
Baa2	19	-	16	-
Ba1 (i)	476	-	85	-
Ba2 (i)	658	270	287	314
Ba3 (i)	106	118	373	136
	3,834	707	3,660	815

(i) A substantial part of the balances is held with financial institutions in Brazil which are deemed investment grade in local currency.

Expressed in millions of United States dollar, unless otherwise stated

19. Financial assets and liabilities

a) 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:

				Marc	h 31, 2024			Decembe	er 31, 2023
Financial assets	Notes	Amortized cost	At fair value through OCI	At fair value through profit or loss	Total	Amortized cost	At fair value through OCI	At fair value through profit or loss	Total
Current	Notes	COST		1055	TOLAI	cost	001	1055	TOLAI
Cash and cash equivalents	21	3,790	_	-	3,790	3,609	-		3,609
Short-term investments	21	5,790		44	44	5,009		51	5,009
Derivative financial instruments	18		-	44	44		-	271	271
						-			
Accounts receivable	10	454	-	1,779	2,233	362	-	3,835	4,197
Judicial deposits	26(c)	672	-	-	672	611	-	_	611
		4,916	-	2,243	7,159	4,582	-	4,157	8,739
Non-current									
Judicial deposits	26(c)	669	-	-	669	798	-	-	798
Restricted cash	13	4	-	_	4	4	-	_	4
Derivative financial instruments	18	-	-	287	287	-	-	544	544
Investments in equity securities	13	-	45	-	45	-	45	-	45
		673	45	287	1,005	802	45	544	1,391
Total of financial assets		5,589	45	2,530	8,164	5,384	45	4,701	10,130
Financial liabilities									
Current									
Suppliers and contractors	12	5,546	-	-	5,546	5,272	_	_	5,272
Derivative financial instruments	18	-	-	20	20	-	_	36	36
Loans and borrowings	21	1,286	-	-	1,286	824	-	-	824
Leases	22	192	-	-	192	197	_	_	197
Liabilities related to the concession grant	13(a)	745	-	-	745	591	_	-	591
Other financial liabilities - Related parties	29	261	-	-	261	290	_	-	290
Advances and other financial obligations	13	682	-	-	682	759	_	_	759
		8,712	-	20	8,732	7,933	-	36	7,969
Non-current		•			•				
Derivative financial instruments	18	-	-	64	64	-	-	95	95
Loans and borrowings	21	11,962	-	_	11,962	11,647	-	_	11,647
Leases	22	1,234	-	-	1,234	1,255	-	-	1,255
Participative shareholders' debentures	20	-	-	2,621	2,621	-	-	2,874	2,874
Liabilities related to the concession grant	13(a)	2,979	-	-	2,979	3,278	-	-	3,278
3		16,175	-	2,685	18,860	16,180	-	2,969	19,149
Total of financial liabilities		24,887	-	2.705	27,592	24.113	-	3.005	27,118

b) Hierarchy of fair value

				March	n 31, 2024			Decembe	r 31, 2023
	Notes	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Tota
Financial assets									
Short-term investments	21	44	-	-	44	51	-	_	51
Derivative financial instruments	18	-	707	-	707	-	815	_	815
Accounts receivable	10	-	1,779	-	1,779	-	3,835	_	3,835
Investments in equity securities	13	-	45	-	45	-	45	-	45
	_	44	2,531	-	2,575	51	4,695	-	4,746
Financial liabilities									
Derivative financial instruments	18	-	84	-	84	-	131	_	131
Participative shareholders' debentures	20	-	2,621	-	2,621	-	2,874	-	2,874
· · · ·		-	2,705	-	2,705	-	3,005	-	3,005

There were no transfers between levels 1, 2 and 3 of the fair value hierarchy during the period presented.

Expressed in millions of United States dollar, unless otherwise stated

c) Fair value of loans and borrowings

		March 31, 2024		December 31, 2023
	Carrying amount	Fair value	Carrying amount	Fair value
Quoted in the secondary market:				
Bonds	7,275	7,266	7,253	7,404
Debentures	143	143	221	213
Debt contracts in Brazil in:				
R\$, indexed to TJLP, TR, IPCA, IGP–M and CDI	231	231	250	250
Basket of currencies and bonds in US\$ indexed to SOFR	150	162	153	168
Debt contracts in the international market in:				
US\$, with variable and fixed interest	5,370	5,760	4,504	4,950
Other currencies, with variable interest	9	8	9	9
Other currencies, with fixed interest	70	72	81	85
Total	13,248	13,642	12,471	13,079

20. Participative shareholders' debentures

	Three-month period ended March 31,							
		2024		2023		Liabilities		
	Average price (R\$)	Financial income	Average price (R\$)	Financial expense	March 31 2024	December 31, 2023		
Participative shareholders' debentures	33.70	164	37.22	(47)	2,621	2,874		

On April 1st, 2024 (subsequent event), the Company made available for withdrawal as remuneration the amount of US\$153 for the second semester of 2023 (2023: US\$125 for the second semester of 2022).

21. Loans, borrowings, cash and cash equivalents and short-term investments

a) Net debt

The Company monitors the net debt with the objective of ensuring the continuity of its business in the long term.

	Notes	March 31, 2024	December 31, 2023
Loans and borrowings		13,248	12,471
Leases	22(b)	1,426	1,452
Gross debt		14,674	13,923
(-) Cash and cash equivalents		3,790	3,609
(-) Short-term investments (i)		44	51
(-) Cash and cash equivalents of PTVI	15(b)	735	703
Net debt		10,105	9,560

(i) Substantially comprises investments in an exclusive investment fund, which portfolio is made by committed transactions and Selic Treasury Notes ("LFTs"), which are floating-rate securities issued by the Brazilian government.

b) Cash and cash equivalents

	March 31, 2024	December 31, 2023
R\$	1,777	953
US\$	1,883	2,516
Other currencies	130	140
Total	3,790	3,609

Expressed in millions of United States dollar, unless otherwise stated

c) Loans and borrowings

i) Outstanding balance of loans and borrowings by type and currency

			Current liabilities	Non-c	urrent liabilities
	Average		December 31,		December 31,
	interest rate (i)	March 31, 2024	2023	March 31, 2024	2023
Quoted in the secondary market:					
US\$ Bonds	6.03%	-	-	7,157	7,157
R\$ Debentures (ii)	8.50%	38	96	103	119
Debt contracts in Brazil in (iii):					
R\$, indexed to TJLP, TR, IPCA, IGP-M and CDI	10.18%	47	49	182	200
Basket of currencies and bonds in US\$ indexed to SOFR	6.86%	-	-	150	150
Debt contracts in the international market in:					
US\$, with variable and fixed interest	5.73%	1,010	500	4,305	3,945
Other currencies, with variable interest	4.12%	-	-	9	9
Other currencies, with fixed interest	4.41%	12	12	56	67
Accrued charges		179	167	-	-
Total		1,286	824	11,962	11,647

(i) In order to determine the average interest rate for debt contracts with floating rates, the Company used the rate applicable as of March 31, 2024.

(ii) The Company has debentures in Brazil obtained for the Company's infrastructure investment projects. (iii) The Company entered into derivatives to mitigate the exposure to cash flow variations of all floating rate debt contracted in Brazil, resulting in an average cost of 3.39% per year in US\$.

The reconciliation of loans and financing with cash flows arising from financing activities is presented in note 9(C).

ii) Future flows of principal and interest of loans and borrowings payments

	Principal	Estimated future interest payments (i)
2024	623	600
2025	899	802
2026	568	748
2027	1,697	650
Between 2028 and 2030	3,332	1,612
2031 onwards	5,950	2,239
Total	13,069	6,651

(i) Based on interest rate curves and foreign exchange rates applicable as of March 31, 2024 and considering that the payments of principal will be made on their contracted payments dates. The amount includes the estimated interest not yet accrued and the interest already recognized in the annual financial statements.

Covenants

Some of the Company's loans and borrowings agreements with lenders contain financial covenants. The primary financial covenants in those agreements require maintaining certain ratios, such as leverage ratio and interest coverage. The Company did not identify any instances of noncompliance as of March 31, 2024.

Expressed in millions of United States dollar, unless otherwise stated

22. Leases

a) Right of use

	December 31, 2023	Additions and contract modifications	Depreciation	Translation adjustment	March 31, 2024
Ports	628	-	(14)	(2)	612
Vessels	415	-	(12)	-	403
Pelletizing plants	193	-	(13)	(6)	174
Properties	80	15	(6)	-	89
Energy plants	34	-	(1)	(1)	32
Equipment of mining	9	-	(1)	(2)	6
Total	1,359	15	(47)	(11)	1,316

b) Leases liabilities

	-	Additions				
	and	contract			Translation	
	December 31, 2023 mod	fications	Payments (i)	Interest	adjustment	March 31, 2024
Ports	682	-	(16)	6	(3)	669
Vessels	397	-	(17)	4	-	384
Pelletizing plants	207	-	(2)	2	(6)	201
Properties	102	15	(5)	1	(4)	109
Energy plants	49	-	(1)	1	(1)	48
Mining equipment	15	-	-	-	-	15
Total	1,452	15	(41)	14	(14)	1,426
Current liabilities	197					192
Non-current liabilities	1,255					1,234
Total	1,452					1,426

(i) The total amount of the variable lease payments not included in the measurement of lease liabilities was US\$56 recorded in the income statement for the three-month period ended March 31, 2024, (2023: US\$37).

Annual minimum payments and remaining lease term

The following table presents the undiscounted lease obligation by maturity date. The lease liability recognized in the statement of financial position is measured at the present value of such obligations.

					2028		Remaining	Discount
	2024	2025	2026	2027	onwards	Total	term (years)	rate
Ports	52	69	55	43	737	956	3 to 20	4% to 5%
Vessels	45	59	54	53	292	503	2 to 10	3% to 4%
Pelletizing plants	57	48	17	17	111	250	1 to 10	2% to 6%
Properties	23	19	16	14	53	125	1 to 10	2% to 6%
Energy plants	7	9	6	5	45	72	1 to 7	5% to 6%
Mining equipment	7	5	4	1	1	18	1 to 5	3% to 6%
Total	191	209	152	133	1.239	1.924		

Expressed in millions of United States dollar, unless otherwise stated

23. Brumadinho dam failure

In January 2019, a tailings dam ("Dam I") experienced a failure at the Córrego do Feijão mine, in the city of Brumadinho, state of Minas Gerais, Brazil. The failure released a flow of tailings debris, destroying some of Vale's facilities, affecting local communities and disturbing the environment. The tailings released have caused an impact of around 315 km in extension, reaching the nearby Paraopeba River. The dam failure in Brumadinho ("event") resulted in 270 fatalities or presumed fatalities and caused extensive property and environmental damage in the region.

As a result of the dam failure, the Company recognized provisions to meet its assumed obligations, including indemnification to those affected by the event, remediation of the impacted areas and compensation to the society. Changes in the provisions are shown below:

	•	Revision to estimates and new provisions	present value		Translation adjustment	March 31, 2024
Integral Reparation Agreement						
Payment obligations	562	(3)	11	-	(18)	552
Provision for socio-economic reparation and others	592	(6)	23	(36)	(18)	555
Provision for social and environmental reparation	843	(24)	9	(24)	(26)	778
	1,997	(33)	43	(60)	(62)	1,885
Other obligations						
Tailings containment, geotechnical safety and environmental reparation	684	(6)	14	(31)	(21)	640
Individual indemnification	83	-	4	(33)	(2)	52
Other	296	33	8	(11)	(9)	317
	1,063	27	26	(75)	(32)	1,009
Liability	3,060	(6)	69	(135)	(94)	2,894

The cash flow for obligations are estimated for an average period ranging from 5 to 7 years and were discounted to the present value at an annual rate in nominal terms, which increased from 8.36% on December 31, 2023, to 8.73% on March 31, 2024.

In addition, the Company has incurred expenses, which have been recognized straight to the income statement as "other operating expenses, net" (note 5c), in relation to tailings management, communication, humanitarian assistance, payroll, legal services, water supply, among others. The Company incurred expenses in the amount of US\$110 for the three-month period ended March 31, 2024 (2023: US\$111).

Judicial Settlement for Integral Reparation

The Settlement for Integral Reparation includes: (i) payment obligations, of which the funds will be used directly by the State of Minas Gerais and Institutions of Justice for socio-economic and socio-environmental compensation projects; (ii) socioeconomic projects in Brumadinho and other municipalities; and (iii) compensation of the environmental damage caused by the dam failure. These obligations are projected for an average period of 6 years.

For the obligations of (i) and (ii), the agreement specifies an amount for each project and changes in the original budget and deadlines may have an impact in the provision. In addition, the execution of the environmental recovery actions has no cap limit despite having been estimated in the Settlement for Integral Reparation due to the Company's legal obligation to fully repair the environmental damage caused by the dam failure. The expenses related to these obligations are deducted from the income tax calculation, in accordance with the Brazilian tax regulation, which is subject to periodic inspection by the competent authorities. Therefore, although Vale is monitoring this provision, the amount recorded could materially change depending on several factors that are not under the Company's control.

Expressed in millions of United States dollar, unless otherwise stated

Other obligations

The Company is also working to ensure geotechnical safety of the remaining structures at the Córrego do Feijão mine, in Brumadinho, and the removal and proper disposal of the tailings of Dam I, including dredging part of the released material and de-sanding from the channel of the river Paraopeba.

For the individual indemnification, Vale and the Public Defendants of the State of Minas Gerais formalized an agreement on April 5, 2019, under which those affected by the Brumadinho's dam failure may join an individual or family group out-of Court settlement agreements for the indemnification of material, economic and moral damages. This agreement establishes the basis for a wide range of indemnification payments, which were defined according to the best practices and case law of Brazilian Courts, following rules and principles of the United Nations.

a) Contingent liabilities

Public civil actions brought by the State of Minas Gerais and state public prosecutors for damages resulting from the failure of Dam I

The Company is party to public civil actions brought by the State of Minas Gerais and justice institutions, claiming compensation for socioeconomic and socio-environmental damages resulting from the dam failure and seeking a broad range of decisions ordering Vale to execute specific remediation and reparation actions. As a result of the Judicial Settlement for Integral Reparation, settled in February 2021, the requests for the reparation of socio-environmental and socioeconomic damages caused by the dam failure were substantially resolved. Indemnifications for individual damages were excluded from the Judicial Settlement for Integral Reparation, and the Term of Commitment signed with the Public Defendants of the State of Minas Gerais was ratified, whose parameters are utilized as a basis for the settlement of individual agreements. The likelihood of a financial loss to the Company is classified as possible and it is not yet possible to reliably estimate the amount of a potential loss to Vale.

Public civil action and investigation under the Brazilian Anticorruption Law

In October 2020, the Brazilian Office of the Comptroller General ("CGU") notified the Company about an administrative proceeding prosecution based on the same allegations mentioned above under the Brazilian Law 12,846/2013 in connection with inspection and monitoring activities related to the Brumadinho dam. In August 2022, the CGU concluded that Vale has failed to present reliable information to the Brazilian National Mining Agency ("ANM"), as once a positive stability condition statement ("DCE") was issued for the Dam I, where it should be negative in the view of the CGU. Thus, even recognizing the non-existence of corruption acts or practices, the CGU fined Vale US\$17 (R\$86 million), which is the minimum amount established by law, i.e., the CGU recognizes the non-involvement or tolerance of the Company's top management.

In September 2023, CGU denied the request for reconsideration filed by the Company and, therefore, Vale paid the fine of US\$17 (R\$86 million) during the year ended December 31, 2023. Vale disagrees with the decision and is adopting the appropriate legal measures.

Class action in the United States

Vale is defending itself against a class action brought before a Federal Court in New York and filed by holders of securities – American Depositary Receipts ("ADRs") – issued by Vale. In May 2020, the Court issued a decision that denied the Motion to Dismiss presented by the Company. The Discovery phase was concluded in November 2023. Upon the filing of a pre-motion letter for the Motion for Summary Judgment presented in January 2024 by the parties, the Court should decide whether the Parties may file their motion for summary judgment. In parallel, a Court hearing will be held, with oral arguments before the Court on the Motion for Class Decertification filed by Vale.

On November 24, 2021, a new complaint was filed before the same Court by eight Plaintiffs, all investment funds, as an "opt-out" litigation from the class action already pending in the Eastern District of New York court, asserting virtually the same allegations in the main class action. A decision from the Court is pending on the Motion to Dismiss presented by the Company.

The likelihood of loss of these proceedings is considered possible. However, considering the current phase of these lawsuits, it is not yet possible to reliably estimate the amount of a potential loss. The amount of damages sought in these claims is unspecified.

Expressed in millions of United States dollar, unless otherwise stated

Criminal proceedings and investigations

In January 2020, the State Prosecutors of Minas Gerais ("MPMG") filed criminal charges against 16 individuals (including former executive officers of Vale and former employees) for a number of potential crimes, including homicide, and against Vale S.A. for alleged environmental crimes.

In November 2021, the Brazilian Federal Police concluded the investigation on potential criminal responsibility related with the Brumadinho dam failure and the final report sent to the Federal Public Prosecutors ("MPF").

In January 2023, after the Federal Supreme Court recognized the competence of the Federal Court, the MPF ratified the complaint presented by MPMG, which was received by the competent authority. The MPF and the Brazilian Federal Police conducted a separate investigation into the causes of the dam failure in Brumadinho, which may result in new criminal proceedings. Vale is defending itself against the criminal claims and is not possible to estimate when a decision will be issued. The likelihood of a financial loss to the Company is classified as possible and it is not yet possible to reliably estimate the amount of a potential loss to Vale.

Public civil actions brought by labor unions

In 2021, public civil actions were filed with Labor Court of Betim in the State of Minas Gerais, by a workers' unions claiming the compensation for death damages to own and outsourced employees, who died as a result of the failure of Dam I. Initial decisions sentenced Vale to pay US\$200 thousand (R\$1 million) per fatality. In June 2023, the Superior Labor Court ruled on the lawsuit filed by workers' union, sustaining the initial decision that condemned Vale. The Company is defending itself in the lawsuits and considers that the likelihood of loss is possible.

Securities and Exchange Commission ("SEC") and investigations conducted by the CVM

On April 28, 2022, the SEC filed a lawsuit against Vale in the U.S. District Court for the Eastern District of New York, alleging that certain Vale's disclosures related to dam safety management prior to the dam failure in Brumadinho violated U.S. securities laws. On March 28, 2023, Vale reached a settlement with the SEC to fully resolve this litigation. Under the agreement, without admitting or denying the settled claims, Vale paid US\$56 during the year ended December 31, 2023. The settlement resolves the litigation without judgment on the claims based upon intentional or reckless fraud. In April 2023, the settlement was approved and granted by the Court.

CVM is also conducting investigations relating to Vale's disclosure of relevant information to shareholders, investors and the market in general, especially regarding the conditions and management of Vale's dams. The likelihood of loss of this proceeding is classified as possible and it is not yet possible to reliably estimate the amount of a potential loss to the Company.

Arbitration proceedings in Brazil filed by shareholders, a class association and foreign investment funds

In Brazil, Vale is named as a defendant in (i) one arbitration filed by 385 minority shareholders, (ii) two arbitrations filed by a class association allegedly representing all Vale's noncontrolling shareholders, and (iii) three arbitrations filed by foreign investment funds.

In the six proceedings, the claimants argue that Vale was aware of the risks associated with the dam and failed to disclose it to its shareholders. Based on such argument, they claim compensation for losses caused by the decrease in share price.

The expectation of loss is classified as possible for the six procedures and, considering the initial phase, it is not possible at this time to reliably estimate the amount of a possible loss.

In one of the proceedings filed by foreign funds, the Claimants initially estimated the amount of the alleged losses would be approximately US\$360 (R\$1,800 million). In another proceeding filed by foreign funds, the Claimants initially estimated the amount of the alleged losses would be approximately US\$781 (R\$3,900 million). The Company disagrees with the ongoing proceedings and understands that, in this case and at the current stage of the proceedings, the probability of loss in the amount claimed by the foreign funds is remote.

Other proceedings

Vale is defendant in a number of investigations and proceedings brought by individuals, business entities, investors, associations, unions, legislative bodies, non-governmental organizations and other entities seeking remediation and compensation for environmental, property and personal damages resulting from the Brumadinho dam failure, including alleged violations of securities laws. The potential loss was US\$105 as of March 31, 2024 (2023: US\$94) and the likelihood of a potential loss to the Company is classified as possible.

Expressed in millions of United States dollar, unless otherwise stated

d) Insurance

The Company is negotiating with insurance companies the payment of indemnification under its civil liability and Directors and Officers Liability Insurance. In three-month period ended March 31, 2024, the Company received US\$2 from insurers which was recorded in income statement as "other operating expenses, net" (note 5c). The Company did not receive any insurance in the three-month period ended March 31, 2023.

24. Liabilities related to associates and joint ventures

In November 2015, the Fundão tailings dam owned by Samarco Mineração S.A. ("Samarco") experienced a failure, flooding certain communities and impacting communities and the environment along the Doce River. The dam failure resulted in 19 fatalities and caused property and environmental damage to the affected areas. Samarco is a joint venture equally owned by Vale S.A. and BHP Billiton Brasil Ltda. ("BHPB").

In 2016, Vale, Samarco and BHPB, entered into a Framework Agreement with the Federal Government of Brazil, the states of Espírito Santo and Minas Gerais and certain other public authorities to establish the Renova Foundation that is developing and executing environmental and socio-economic programs to remediate and provide compensation for damage caused by the Samarco dam failure.

In June 2018, Samarco, Vale and BHPB entered into a comprehensive agreement with the offices of the federal and state (Minas Gerais and Espírito Santo) prosecutors, public defenders and attorney general, among other parties ("TacGov Agreement"), improving the governance mechanism of Renova Foundation and establishing, among other things, a process for potential revisions to the remediation programs under the Framework Agreement.

These agreements aim to remediate and provide compensation for damage caused, of which Samarco has primary responsibility for funding the obligations, and Vale and BHPB have secondary funding obligations under the Framework Agreement in proportion to their 50 per cent shareholding in Samarco.

a) Provision related to the Samarco dam failure

The changes on the provision are presented below:

	Total
Balance as of December 31, 2023	4,427
Revision to estimates	(58)
Monetary and present value adjustments	44
Disbursements	(86)
Translation adjustments	(137)
Balance as of March 31, 2024	4,190

The cash outflows to meet the obligations are discounted to present value at an annual rate in real terms, which increased from 5.22% on December 31, 2023, to 5.75% on March 31, 2024.

b) Contingent liabilities

Public Civil Action filed by the Federal Government and others and public civil action filed by the Federal Public Ministry ("MPF")

Vale is a defendant in several legal proceedings brought by governmental authorities and civil associations claiming to recover socioenvironmental and socioeconomic damages and a number of specific remediation measures as a result of Samarco's Fundão dam failure, including a claim brought by the Federal Public Prosecution Office in 2016 seeking several measures that amount to US\$31 billion (R\$155 billion), subject to interest and monetary adjustments, which the effect for Vale would be 50% of this amount.

This Public Civil Action was suspended as a result of the ratification of the TacGov agreement. However, as pre-requisites established in the TacGov Agreement, for renegotiation of the Framework Agreement, were not implemented during the established period, in 2020, the Brazilian Federal and State prosecutors and public defenders filed a request for the immediate resumption of this claim.

Therefore, Vale, Samarco, BHPB and Federal and State prosecutors have been engaging in negotiations to seek a definitive settlement of the obligations under the Framework Agreement and the US\$31 billion (R\$155 billion) Federal Public Prosecution Office claim.

Expressed in millions of United States dollar, unless otherwise stated

The goal in signing a potential settlement agreement is to provide a stable framework for the execution of reparation and compensation measures related to the Samarco dam rupture, it also aims to settle all lawsuits brought by the public authorities involved.

Judicial decision requesting cash deposits and increase on the territories affected by the collapse

In March 2023, as part of a proceeding related to a potential increase on the number of territories recognized as affected by the collapse of Samarco's Fundão dam and covered by the TTAC, a Federal Court issued a decision ordering Vale and BHP Brasil to make judicial deposits in the total amount of US\$2.1 billion (R\$10.3 billion), in ten installments, which the effect for Vale would be 50% of this amount. On April 28, 2023, the Federal Court granted the companies' request for a suspensive effect on the decision that determined this deposit.

In August 2023, the judge issued a judicial decision recognizing the existence of new territories impacted by the collapse of the Fundão dam. The Company is adopting the appropriate legal measures and believes its provisions are sufficient to comply with the TTAC obligations.

Judicial decision on collective moral damages

In January 2024, the 4th Federal Lower Civil Court of Belo Horizonte issued a judicial decision requiring the payment of collective moral damages in the amount of US\$9.5 billion (R\$47.6 billion) (the effect for Vale would be 50% of this amount), subject to monetary adjustments from the date of the decision and interests from November 2015. The Company is defending itself and believes the likelihood of loss in relation of the merits of these proceedings is possible, however, the likelihood of loss in the alleged amount is assessed as remote.

London Contribution claim

As a result of the rupture of Samarco's Fundão dam failure, BHP Group Ltd ("BHP") was named as defendant in group action claims for damages filed in the courts of England and Wales for various plaintiffs, between individuals, companies and municipalities from Brazil that were supposedly affected by the Samarco dam failure (the "UK Claim").

On December 2022, BHP filed a "Contribution Claim" against Vale, requesting the Company to share the indemnification established in the UK Claim. Both the Contribution Claim and the UK Claim are still ongoing, and there has not been any decision on their merits. The first phase of the trial is expected to begin in October 2024. It is not yet possible to reliably estimate the amount of a potential loss to Vale.

Netherlands proceeding

In March 2024, a court in Amsterdam granted a preliminary injunction freezing the shares in Vale Holdings B.V., a wholly owned subsidiary incorporated in the Netherlands, and the economic rights attached to those shares, in guarantee of an amount of approximately US\$993 (EUR920 million). The freezing orders were issued in anticipation of a legal action to be brought against Vale by certain Brazilian municipalities and an organization that represents individuals and small businesses that claim to have been affected by the collapse of Samarco's Fundão dam in 2015. The first court event is expected to take place in the first quarter of 2025. The Company is adopting the appropriate legal measures and believes its provisions are sufficient to comply with its obligations.

Criminal proceedings

In September 2019, the court has dismissed part of the criminal charges but accepted charges of environmental crimes against Vale and one of its employees relating to an alleged omission in the provision of relevant information of environmental interest for public authorities. The Company cannot estimate when a final decision on the case will be issued. The likelihood of a financial loss to the Company is classified as possible and it is not yet possible to reliably estimate the amount of a potential loss to Vale.

Expressed in millions of United States dollar, unless otherwise stated

Tax proceeding

In September 2018, the federal tax authorities filed a request before a federal court in Belo Horizonte for an order to Vale's assets to secure the payment of Samarco's federal tax and social security debts, in the amount of approximately US\$2.3 billion (R\$11 billion) (as of June 2018). In May 2019, a favorable decision was issued dismissing the claim without prejudice, due to lack of procedural interest. The General Attorney for the National Treasury (Procuradoria Geral da Fazenda Nacional – "PGFN") filed an appeal to the local court, and a decision is pending. The likelihood of a financial loss to the Company is classified as possible and it is not yet possible to reliably estimate the amount of a potential loss to Vale.

Other proceedings

Vale is defendant in several private actions, before different state and federal courts in the states of Minas Gerais and Espírito Santo, brought by individuals and other entities seeking remediation and compensation for environmental, property and personal damages resulting from the Samarco dam failure. The potential loss was US\$7 as of March 31, 2024 (2023: US\$11) and the likelihood of a potential loss to the Company is classified as possible.

25. Provision for de-characterization of dam structures and asset retirement obligations

The Company is subject to local laws and regulations, that requires the decommissioning of the assets that Vale operates at the end of their useful lives, therefore, expenses for demobilization occur predominantly after the end of operational activities. These obligations are regulated in Brazil by the ANM at the federal level and by environmental agencies at the state level. Among the requirements, the decommissioning plans must consider the physical, chemical and biological stability of the areas and post-closure actions for the period necessary to verify the effectiveness of the decommissioning. These obligations are accrued and are subject to critical estimates and assumptions applied to the measurement of costs by the Company. Depending on the geotechnical characteristics of the structures, the Company is required to decharacterize the structures, as shown in item a) below.

a) De-characterization of upstream geotechnical structures

As a result of the Brumadinho dam failure (note 23) and, in compliance with laws and regulations, the Company has decided to speed up the plan to "de-characterize" of all its dams and dikes, located in Brazil. The Company also operates tailings dams in Canada, including upstream compacted dams. However, the Company decided that these dams will be decommissioned using other methods, thus, the provision to carry out the decommissioning of dams in Canada is recognized as "Obligations for decommissioning assets and environmental obligations", as presented in item (b) below.

These structures are in different stages of maturity, some of them still in the conceptual engineering phase, for which the estimate of expenditures includes in its methodology a high degree of uncertainty in the definition of the total cost of the project in accordance with best market practices.

Changes in the provisions are as follows:

	Total
Balance as of December 31, 2023	3,451
Revision to estimates	(61)
Disbursements	(119)
Monetary and present value adjustments	46
Translation adjustment	(106)
Balance as of March 31, 2024	3,211

The cash flow for de-characterization projects are estimated for a period up to 15 years and were discounted to present value at an annual rate in real terms, which increased from 5.41% to 5.86%.

Operational stoppage and idle capacity

The Company has suspended some operations due to judicial decisions or technical analysis performed by Vale on its geotechnical structures located in Brazil. The Company has been recording losses in relation to the operational stoppage and idle capacity of the Iron Ore Solutions segment in the amounts of US\$43 for the three-month period ended March 31, 2024 (2023: US\$74). The Company is working on legal and technical measures to resume all operations.

Expressed in millions of United States dollar, unless otherwise stated

b) Asset retirement obligations and environmental obligations

		Liability		Discount rate		Cash flow maturity
		December 31,	March 31,	December 31,	March 31,	December 31,
	March 31, 2024	2023	2024	2023	2024	2023
Liability by geographical area						
Brazil	2,263	2,415	5.86%	5.47%	2132	2132
Canada	1,568	1,592	1.39%	1.30%	2150	2150
Oman	158	158	3.10%	3.19%	2035	2035
Other regions	106	114	2.24%	2.04%	-	_
	4,095	4,279				
Operating plants	3,155	3,155				
Closed plants	940	1,124				
	4,095	4,279				

Provision changes during the period

	Asset retirement obligations	Environmental obligations	Total
Balance as of December 31, 2023	3,779	500	4,279
Disbursements	(38)	(18)	(56)
Revision to estimates and new provisions	(76)	22	(54)
Monetary and present value adjustments	31	6	37
Translation adjustment	(95)	(16)	(111)
Balance as of March 31, 2024	3,601	494	4,095

Financial guarantees

The Company has issued letters of credit and surety bonds for US\$855 as of March 31, 2024 (December 31, 2023: US\$910), in connection with the asset retirement obligations for its Energy Transition Metals operations.

26. Legal proceedings

The Company is a defendant in numerous legal actions in the ordinary course of business, including civil, tax, environmental and labor proceedings.

The Company makes use of estimates to recognize the amounts and the probability of outflow of resources, based on reports and technical assessments and on management's assessment. Provisions are recognized for probable losses of which a reliable estimate can be made.

Arbitral, legal and administrative decisions against the Company, new jurisprudence and changes of existing evidence can result in changes regarding the probability of outflow of resources and on the estimated amounts, according to the assessment of the legal basis.

The lawsuits related to Brumadinho event (note 23) and the Samarco dam failure (note 24) are presented in specific notes to these financial statements and, therefore, are not disclosed below.

Expressed in millions of United States dollar, unless otherwise stated

a) Provision for legal proceedings

	Tax litigation	Civil litigation	Labor litigation	Environmental litigation	Total of litigation provision
Balance as of December 31, 2023	90	380	514	15	999
Additions and reversals, net	4	12	33	1	50
Payments	-	(25)	(22)	-	(47)
Indexation and interest	7	25	(1)	1	32
Translation adjustment	(3)	(12)	(16)	(1)	(32)
Balance as of March 31, 2024	98	380	508	16	1,002
Balance as of December 31, 2022	576	291	411	14	1,292
Additions and reversals, net	2	(1)	27	3	31
Payments	-	(9)	(18)	-	(27)
Indexation and interest	9	9	6	1	25
Translation adjustment	15	7	13	_	35
Balance as of March 31, 2023	602	297	439	18	1,356

The Company has considered all information available to assess the likelihood of an outflow of resources and in the preparation on the estimate of the costs that may be required to settle the obligations.

Tax litigations – The Company is party to several administrative and legal proceedings related mainly to the incidence of Brazilian federal contributions ("PIS" and "COFINS"), Value-added tax ("ICMS") and other taxes. The liabilities related to the lawsuit filed in 2011 by Valepar seeking the right to exclude the amount of dividends received in the form of interest on capital ("JCP") from the PIS and COFINS tax base was transferred to taxes payables on December 31, 2023, as a result of the court decision that determined the conversion of part of the judicial deposit to the Government, which was concluded in April 2024 (subsequent event) (note 7e).

Civil litigations – Refers to lawsuits for: (i) indemnities for losses, payments and contractual fines due to contractual imbalance or non-compliance that are alleged by suppliers, and (ii) land claims referring to real estate Vale's operational activities.

Labor litigations – Refers to lawsuits for individual claims by in-house employees and service providers, primarily involving demands for additional compensation for overtime work, moral damages or health and safety conditions.

Environmental litigations – Refers mainly to proceedings for environmental damages and issues related to environmental licensing.

b) Contingent liabilities

	March 31, 2024	December 31, 2023
Tax litigations	6,774	7,235
Civil litigations	1,483	1,366
Labor litigations	339	378
Environmental litigations	1,375	1,320
Total	9,971	10,299

The relevant developments since the financial statements for the year ended December 31, 2023 are presented as follow:

Tax litigations - Brazilian federal contributions ("PIS" and "COFINS")

In 2013, the Company received a tax assessment from the Brazilian Federal Revenue Office ("RFB") charging a fine in the amount of US\$400 (R\$2 billion), for alleged omissions and inaccuracies in the ancillary obligations relating to PIS and COFINS from 2008 to 2010. The Company has been assessing the likelihood of loss in this lawsuit as possible.

On February 26, 2024, the Superior Council of Tax Appeals ("CSRF") issued a decision favorable to Vale, clarifying the procedure for measuring this fine which reduced substantially the amount. As a result, the likelihood of loss was reassessed and was substantially classified as remote for the three-month period ended March 31, 2024.

Expressed in millions of United States dollar, unless otherwise stated

c) Judicial deposits

	March 31, 2024	December 31, 2023
Tax litigations	1,105	1,127
Civil litigations	88	122
Labor litigations	137	148
Environmental litigations	11	12
Total	1,341	1,409

d) Guarantees contracted for legal proceedings

In addition to the above-mentioned tax, civil, labor and environmental judicial deposits, the Company contracted US\$2.8 billion (December 31, 2023: US\$2.7 billion) in guarantees for its lawsuits, as an alternative to judicial deposits.

27. Employee benefits

			Current liabilities	Non-current liabilities		
	Notes	March 31, 2024	December 31, 2023	March 31, 2024	December 31, 2023	
Payroll, related charges and other remunerations		516	867	-	-	
Share-based payments	27(a)	13	27	-	-	
Employee post-retirement obligation	27(b)	73	70	1,288	1,381	
		602	964	1,288	1,381	

a) Share-based payments

For the long-term incentive programs, the Company compensation plans includes Matching Program and Performance Share Unit program ("PSU"), with three-year-vesting cycles, respectively, with the aim of encouraging employee's retention and encouraging their performance. The fair value of the programs is recognized on a straight-line basis over the threeyear required service period, net of estimated losses.

Matching Program

The fair value of the Matching program was estimated using the Company's share price and ADR and the number of shares granted on the grant date. The information by valid programs during the three-month period ended March 31, 2024 is shown below:

	2023 Program	2022 Program	2021 Program
Granted shares	1,330,503	1,437,588	1,046,255
Share price	15.94	20.03	20.12

Performance Shares Units ("PSU")

The fair value of the PSU program was measured by estimating the performance factor using Monte Carlo simulations for the Return to Shareholders Indicator and health and safety and sustainability indicators. The assumptions used for the Monte Carlo simulations are shown in the table below by valid program during the three-month period ended March 31, 2024, as well as the result used to calculate the expected value of the total performance factor.

	2023 Program	2022 Program	2021 Program
Granted shares	1,177,755	1,709,955	1,474,723
Date shares were granted	January 2, 2023	January 3, 2022	January 3, 2021
Share price	16.6	13.81	20.12
Expected volatility	48.33%	39.00%	39.00%
Expected term (in years)	3	3	3
Expected shareholder return indicator	72,42%	51,20%	51,20%
Expected performance factor	79.32%	53.08%	60.96%

Expressed in millions of United States dollar, unless otherwise stated

b) Employee post-retirement obligation

Reconciliation of assets and liabilities recognized in the statement of financial position

		N	Narch 31, 2024		Decen	nber 31, 2023
-	Overfunded	Underfunded	Other	Overfunded	Underfunded	Other
	pension plans	pension plans	benefits	pension plans	pension plans	benefits
Movements of assets ceiling						
Balance at beginning of the period	1,071	-	-	1,114	-	-
Interest income	20	-	-	103	1	-
Changes on asset ceiling	(4)	-	-	(192)	(28)	-
Translation adjustment	(29)	-	-	73	-	-
Transfer	-	-	-	(27)	27	-
Balance at end of the period	1,058	-	-	1,071	-	-
Amount recognized in the statement of financial position						
Present value of actuarial liabilities	(4,670)	(585)	(1,115)	(4,517)	(1,118)	(1,148)
Fair value of assets	5,790	339	-	5,656	815	-
Effect of the asset ceiling	(1,058)	-	-	(1,071)	-	-
Assets (liabilities)	62	(246)	(1,115)	68	(303)	(1,148)
Current liabilities	-	(9)	(64)		(9)	(61)
Non-current assets (liabilities) (i)	62	(237)	(1,051)	68	(294)	(1,087)
Assets (liabilities)	62	(246)	(1,115)	68	(303)	(1,148)

(i) Overfunded pension plans assets are recorded as "Other non-current assets" in the balance sheet.

28. Equity

a) Share capital

As of March 31, 2024, the share capital was US\$61,614 corresponding to 4,539,007,580 shares issued and fully paid without par value. The Board of Directors may, regardless of changes to by-laws, approve the issue and cancelation of common shares, including the capitalization of profits and reserves to the extent authorized.

			March 31, 2024
Shareholders	Common shares	Golden shares	Total
Previ (i)	396,504,756	-	396,504,756
Mitsui&co (i)	286,347,055	-	286,347,055
Blackrock, Inc (ii)	289,063,618	-	289,063,618
Total shareholders with more than 5% of capital	971,915,429	-	971,915,429
Free floating	3,308,415,741	-	3,308,415,741
Golden shares	-	12	12
Total outstanding (without shares in treasury)	4,280,331,170	12	4,280,331,182
Shares in treasury	258,676,398	-	258,676,398
Total capital	4,539,007,568	12	4,539,007,580

(i) Number of shares owned by shareholders, as per statement provided by the custodian, based on shares listed at B3. (ii) Number of shares as reported in BlackRock, Inc.'s Schedule 13G/A, filed with the SEC.

b) Cancelation of treasury shares

During the three-month period ended March 31, 2023, the Board of Directors approved cancellations of common shares issued by the Company, acquired and held in treasury, without reducing the amount of its share capital. The effects were transferred in shareholders' equity as "Treasury shares used and cancelled", between the "Profit reserves" and "Treasury shares". There were no cancellations of shares during the three-month period ended March 31, 2024.

	Number of canceled shares	Carrying amount
Cancellation approved on March 2, 2023	239,881,683	4,164
Three-month period ended March 31, 2023	239,881,683	4,164

Expressed in millions of United States dollar, unless otherwise stated

c) Share buyback program

	Total of shares repurchased		Effect on cash flov	
			Three-month per	iod ended March 31,
	2024	2023	2024	2023
Shares buyback program up to 150,000,000 shares (i)				
Acquired by Parent	10,493,300	-	147	-
Acquired by wholly owned subsidiaries	9,137,714	-	128	-
	19,631,014	-	275	-
Shares buyback program up to 500,000,000 shares (ii)				
Acquired by Parent	_	23,234,352	-	398
Acquired by wholly owned subsidiaries	-	21,304,219	-	365
	-	44,538,571	-	763
Shares buyback program	19,631,014	44,538,571	275	763

(i) On October 26, 2023, a new share buyback program limited to a maximum of 150,000,000 common shares and their respective ADRs, over the next 18 months started from the end of the program previously on going.

(ii) On April 27, 2022, the Board of Directors approved the common shares buyback program, limited to a maximum of 500,000,000 common shares or their respective ADRs, with a term of 18 months.

d) Remuneration approved

The Company's By-laws determines as its minimum mandatory remuneration to Vale shareholders an amount equal to 25% of the net income, after appropriations to legal and tax incentive reserves. The remuneration approved as interest on capital ("JCP") is gross up with the income tax applicable to Vale's shareholders. The remuneration to Vale's shareholders was based on the following resolutions:

- On February 22, 2024, the Board of Directors has approved remuneration to shareholders in the total amount of US\$2,364 (R\$11,722 million). The total amount was approved as dividends, and it was fully paid in March 2024.
- On February 16, 2023, the Board of Directors approved the shareholder's remuneration of US\$1,569 (R\$8,130 million), of which US\$1,132 (R\$5,865 million) is part of the minimum mandatory remuneration, and US\$437 (R\$2,265 million) as an additional remuneration. This remuneration was fully paid in March 2023.

29. Related parties

The Company's related parties are subsidiaries, joint ventures, associates, shareholders and its related entities and key management personnel of the Company.

Related party transactions were made by the Company on terms equivalent to those that prevail in arm's-length transactions, with respect to price and market conditions that are no less favorable to the Company than those arranged with third parties.

Net operating revenue relates to sale of iron ore to the steelmakers and right to use capacity on railroads. Cost and operating expenses mostly relates to the variable lease payments of the pelletizing plants.

Purchases, accounts receivable and other assets, and accounts payable and other liabilities relate largely to amounts charged by joint ventures and associates related to the pelletizing plants operational lease and railway transportation services.

Expressed in millions of United States dollar, unless otherwise stated

a) Transactions with related parties

				Three-r	nonth period end	led March 31,
		2024				
	Net	Cost and			Cost and	
	operating	operating	Financial	Net operating	operating	Financial
	revenue	expenses	result	revenue	expenses	result
Joint Ventures						
Companhia Siderúrgica do Pecém	-	-	-	93	-	-
Aliança Geração de Energia S.A.	_	(27)	-	-	(26)	-
Pelletizing companies (i)	-	(77)	(9)	15	(58)	(14)
MRS Logística S.A.	_	(90)	-	-	(64)	_
Norte Energia S.A.	_	(15)	-	-	(27)	_
Other	9	(21)	(3)	5	(3)	_
	9	(230)	(12)	113	(178)	(14)
Associates						
VLI	82	(6)	(1)	69	(6)	(1)
Other	_	(1)	3	-	_	_
	82	(7)	2	69	(6)	(1)
Shareholders						
Cosan	-	(1)	-	-	_	_
Bradesco	-	_	(39)	-	_	72
Mitsui	61	_	-	45	_	_
	61	(1)	(39)	45	-	72
Total	152	(238)	(49)	227	(184)	57

(i) Aggregated entities: Companhia Coreano-Brasileira de Pelotização, Companhia Hispano-Brasileira de Pelotização, Companhia Ítalo-Brasileira de Pelotização and Companhia Nipo-Brasileira de Pelotização.

b) Outstanding balances with related parties

						Assets
			March 31, 2024		D	ecember 31, 2023
	Cash and cash equivalents	Accounts receivable	Dividends receivable and other assets	Cash and cash equivalents	Accounts receivable	Dividends receivable and other assets
Joint Ventures						
Pelletizing companies (i)	-	-	26	-	_	27
MRS Logística S.A.	-	16	33	-	16	34
Other	-	5	21	-	4	43
	-	21	80	-	20	104
Associates						
VLI	-	139	-	-	46	-
Other	-	-	3	-	1	2
	-	139	3	-	47	2
Shareholders						
Cosan	_	-	_	-	1	-
Bradesco	251	-	267	176	-	313
Banco do Brasil	186	-	_	58	-	-
Mitsui	-	5	-	-	5	-
	437	5	267	234	6	313
Pension plan	-	17	-	-	16	-
Total	437	182	350	234	89	419

(i) Aggregated entities: Companhia Coreano-Brasileira de Pelotização, Companhia Hispano-Brasileira de Pelotização, Companhia Ítalo-Brasileira de Pelotização and Companhia Nipo-Brasileira de Pelotização.

Expressed in millions of United States dollar, unless otherwise stated

Total	124	460	158	372
Pension plan	12	-	14	-
	2	24	1	23
Bradesco	-	24	_	23
Cosan	2	-	1	
Shareholders				
	5	175	5	59
Other	1	-	4	-
VLI	4	175	1	59
Associates				
	105	261	138	290
Other	34	-	39	-
MRS Logística S.A.	15	-	48	-
Pelletizing companies (i)	56	261	51	290
Joint Ventures	Supplier and contractors	March 31, 2024 Financial instruments and other liabilities	Supplier and contractors	December 31, 2023 Financial instruments and other liabilities
				Liabilities

(i) Aggregated entities: Companhia Coreano-Brasileira de Pelotização, Companhia Hispano-Brasileira de Pelotização, Companhia Ítalo-Brasileira de Pelotização and Companhia Nipo-Brasileira de Pelotização.

c) Key management personnel compensation

During the three-month period ended March 31, 2024, the compensation of the Company's key management personnel was US\$11 (2023: US\$10).